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Business model disclosure in the Strategic Report

BM disclosure
in the SR

Entangling intellectual capital in value creation process

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Abstract

Purpose – The purpose of this paper is to evaluate business model (BM) disclosure. As the BM shows how a company creates and captures value, its communication in the Annual Report is considered a necessary background for a dynamic analysis, interpretation, and evaluation of the intellectual capital (IC) contribution to a company's competitive advantage.

Design/methodology/approach – Focusing on a sample of listed UK companies operating in high-technology industries, this paper runs a content analysis of BM disclosure presented in the Strategic Report (SR). To develop the analysis, it refers to an ontological approach that encompasses the main research contributions to this topic.

Findings – The analysis of SRs revealed that few companies use their BM disclosure to highlight the contribution of their IC to create and capture value. BM descriptions are not always clearly distinguishable from other strategic concepts and poorly illustrate the interactions among the BM components, which help understand how IC is entangled in a company's value creation process.

Practical implications – This paper answers the Financial Reporting Council's call for comments about its Guidance on SR. More in general, it contributes to the issue of the regulation of narrative information in the Annual Report.

Originality/value – This paper proposes a methodological framework for the analysis of BM disclosure quality. Thanks to this framework, it points out some critical issues of BM disclosure and offers some hints useful for its regulation.

Keywords Business model, Disclosure quality, Intellectual capital, Companies Act, Strategic Report

Paper type Research paper

1. Introduction

The financial and scientific community, as well as the market regulatory bodies, highlight the increasing importance of the intellectual capital (IC) for an enduring competitive advantage. On the other hand, paradoxically, financial analysts – a proxy for investors – ask for more disclosure related to strategy and often find IC statements less relevant (Bukh, 2003).

This paradox, at least in part, depends on the features of the current IC disclosure, mainly based on non-financial indicators (Bukh *et al.*, 2001; Mouritsen *et al.*, 2001) that are not adequately framed and contextualized in the value creation perspective (Dumay, 2009; Montemari and Nielsen, 2013; Mouritsen, 2006; O'Donnell *et al.*, 2006). Recent literature maintains that, to be useful for the market, IC information should be dynamically presented and communicated, showing the contribution offered by intangible assets to value creation (Mouritsen and Larsen, 2005; Nielsen *et al.*, 2008).

The process of creation and appropriation of value and the dynamic contribution of the intangibles to this process are expressed by a company's business model (BM) (Ghaziani and Ventresca, 2005; Perkmann and Spicer, 2010). The central role of BM as a



framework to interpret the IC communication is stated by many studies (Beattie and Smith, 2013; Bukh *et al.*, 2001; Eccles *et al.*, 2001; Holland, 2004; Nielsen and Bukh, 2013; UBS, 2012). They put in evidence that BM disclosure allows “entangling” IC indicators in the value creation process peculiar to a company (Bukh and Johanson, 2003; Magretta, 2002; Mouritsen *et al.*, 2001; Nielsen, 2010), and highlights how the various elements of value creation process interrelate (Holland, 2004; Nielsen, 2010). Therefore, “the business model should drive IC disclosure and not the other way round” (Beattie and Smith, 2013, p. 252).

Despite a few critical positions (ICAEW, 2010), there is a widespread and growing support for the inclusion of BM disclosure in the narrative section of the Annual Report (BIS, 2011; CIMA, 2013; EFRAG, 2013; Fensel, 2001; Holland, 2004; IIRC, 2013). In the UK, this momentum crowned in the revision of the Companies Act (CA) 2006, which, since 2013 fiscal year, requires UK companies to present, in their Annual Report, the Strategic Report (SR), a narrative document that supersedes the Business Review. In such document, a central role is assigned to the presentation of the company’s BM. To implement this law, the Financial Reporting Council (FRC) issued a set of guidelines, which also concern the BM information (FRC, 2014).

Against this background, some recent surveys point out the increasing attention of big listed UK companies towards the BM communication (Grant Thornton, 2011; PwC, 2013). Nevertheless, “research should investigate the extent and nature of reporting of constituent concepts. Further, the antecedents and consequences of business model reporting appear currently to be a research lacuna” (Beattie and Smith, 2013, p. 253). This call from Beattie and Smith spurs to delve into the BM communication with the aim to uncover its qualitative strands.

This paper accepts this invitation and aims to analyse the quality level of BM disclosure in the Annual Report after the introduction of the mandatory requirement. A manual content analysis, which investigates BM disclosure in the SRs of 35 companies in the FTSE techMARK Focus Index, shows whether the BM disclosure allows understanding what knowledge resources drive value creation, rather than the specific money value ascribed to those resources (Mouritsen, 2009).

Due to the lack of previous analysis of BM disclosure, this study develops a classification system based on an ontological approach, which represents a first methodological answer to the call for research on BM reporting in the Annual Report (Beattie and Smith, 2013; Bukh, 2003).

In this way, this paper contributes to the scientific debate about the developments in business reporting models as it seeks to overcome the limitations of the traditional reporting model, especially its failure to value intangibles (ICAEW, 2009, p. 37). By delving into the UK SR, the analysis of the BM communication quality also adds to the debate concerning a wider issue: the effectiveness of approaches that discipline the narrative communication through general principles rather than specific rules.

From an operative standpoint, this paper offers some hints to help, on the one hand, companies to improve their IC communication, and, on the other hand, regulatory bodies to state their guidelines for the SR preparation; in particular, it gives answers to some questions explicitly posed by the FRC.

This paper’s results show that BM description mainly consists of few elements, especially a firm’s resources and value proposition, while this information is scarcely focused on the value process. Only few companies use BM disclosure to convey a view of a firm’s IC “in action” (Chicchi, 2013; Mouritsen, 2009), linking IC indicators to strategy, and providing a context-giving narrative (Nielsen and Madsen, 2009).

These results raise some doubts about the effectiveness of the emended CA and the related FRC Guidance, adding to the debate about the narrative reporting regulation (Beattie and McInnes, 2006). The lack of a detailed definition of BM, which clearly identifies its components and its boundaries, and the absence of details concerning the modality of disclosure have turned out into incomplete and descriptive presentations, which oblige users to search by themselves the connections among different resources (financial, physical, and immaterial) that create value (Bukh, 2003).

The remainder of the paper is organized as follows: Sections 2 illustrates the relation between IC concept and BM concept. Then, Section 3 explains the rationale for the BM disclosure in the Annual Report and points out the challenges that a company must deal with to offer a relevant disclosure. This analysis leads to pose the research question. The research design is explained in Sections 4 and 5, while Section 6 illustrates results and discussion. Finally, the main conclusions and some limitations of this study are reported.

2. IC and BM

In the present economic context, resources based on knowledge are crucial to create value. These resources express the IC of a firm. Therefore, to make rational decisions, investors should know the amount and the quality of a company's IC (Lev and Sougiannis, 1996). For this reason, over time, specific disclosure focused on the IC has been developed. This information has been often conveyed by drawing up an IC statement. In practice, this report contains financial and non-financial information, like staff turnovers, customer satisfaction, precision of supply, etc. (Guthrie, 2001; Petty and Guthrie, 2000; Zambon, 2004).

Nevertheless, the growing tendency of companies to show their IC would not seem to meet the investors' needs, in particular the analysts who can be considered a proxy for the investors (Bukh, 2003). In fact, IC communication is mainly focused on the IC resources and what managers have done to develop those resources, more than on how the IC is employed to put in practice a company's strategy and to gain a sustainable competitive advantage; two conditions which a company's capacity to create value depends on (Beattie and Smith, 2013). In substance, a sort of paradox would shine through: on the one hand, a growing attention of companies and researchers to the IC and its forms of communications; on the other hand, the investors' dissatisfaction with these attempts. This paradox was pointed out by Bukh (2003). Drawing on a study about disclosure of IC in Danish IPO prospectuses, the author argues that, "for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. This means that [...] the value creation model should also be disclosed. Within the strategy literature, such a framework for disclosure is offered by the concept of business model" (Bukh, 2003, p. 45). Bukh's interpretation was borne out by some surveys run by practitioners (UBS, 2012) and other pieces of research that throw into relief that analysts are deeply interested in the assessment of a company's BM (Nielsen, 2008; Nielsen and Bukh, 2011).

The above-mentioned paradox is partially fuelled by the research approaches to IC. As Beattie and Smith (2013, p. 249) underline, IC studies have been mainly focused on IC components and categories, "while there has been little recognition of the embeddedness of IC in an overarching business model". The BM concept, in fact, concerns the transformation of resources (financial, physical, and immaterial) into value. In particular, Amit and Zott (2001) consider, as one of the main pillars of a BM,

“goods or information that are being exchanged, and resources and capabilities that are required to enable the exchange” (p. 511). In light of this, the dynamic capabilities (Teecce *et al.*, 1997) a company is endowed with, and the IC that is an expression of these capabilities, are at the foundation of a company’s BM and its continuing reconfiguration that is crucial to preserve a competitive advantage (Andries and Debackere, 2006; Demil and Lecocq, 2010).

The BM notion, therefore, puts itself forward as a background that makes sense of IC complexity (Beattie and Smith, 2013; Dumay, 2009; Nielsen *et al.*, 2008). Thanks to BM disclosure, intangible resources are embedded in the context in which they work and can be presented “in action”, showing their contribution to value creation. That helps investors identify the lead performance indicators that really matter, by splicing them with a company’s aims and strategy (Montemari and Nielsen, 2013; Mouritsen, 2006; Mouritsen and Larsen, 2005; Nielsen, 2010; O’Donnell *et al.*, 2006).

The relationships among the BM components (many of which are IC in nature), in their turn, represent a further specific component of a company’s IC, namely the connectivity capital (Bjurström and Roberts, 2007). In addition to this, the BM conceptualization and communication themselves create IC, as they transform a tacit knowledge into an explicit one (Osterwalder *et al.*, 2005).

3. BM communication in the Annual Report

During the last years, in spite of some sceptical opinions (ICAEW, 2010), a growing number of entities and organizations have proposed to communicate the BM in the Annual Report and, for this purpose, some guidelines have been provided by authoritative organizations (BIS, 2011; CIMA, 2013; IIRC, 2013). The rationale is that a mandatory communication should form the basis of “a continuing durable standard for enhanced public disclosure of information on BM and its role in corporate value creation processes. The existence of such a standard would create a level playing for disclosure for those investors not privy to direct one-to-one contact with companies” (Holland, 2004, p. 101).

The BM communication impinges on the narrative section of the Annual Report (Bukh *et al.*, 2001; Fensel, 2001; Johanson *et al.*, 2001; Mouritsen *et al.*, 2001; Nielsen, 2010; Nielsen and Bukh, 2013). The BM concept, as a schematic representation of the value creation and capture process, grows into a communicative approach that might allow a company to offer its stakeholders a view based on the logic of through the eyes of management, which is an essential principle of the narrative communication to the financial market (Beattie and Smith, 2013). In substance, the BM can be interpreted as a holistic macro-level view, a template for connecting information on strategies, IC resources, financial and non-financial performance, and risks looming over a company (Nielsen *et al.*, 2008). Consequently, its disclosure represents a natural top-level capstone in a business reporting hierarchy, according to the “integrated reporting” proposal worked out by the International Integrated Reporting Council (IIRC). In fact, the IIRC Framework on Integrated Reporting declares that “at the core of the organization is its business model, which draws on various capitals as inputs and, through its business activities, converts them to outputs (products, services, by-products, and waste)” (IIRC, 2013, p. 13). What takes shape is a communication model that is structured with different but integrated levels (Beattie and Smith, 2013; Nielsen and Bukh, 2011).

This position has had its full recognition in the UK, first, in a new version of the Corporate Governance Code, and then, in 2013, in the CA 2006 revision. The revised CA imposed the presentation of a new document, the SR, which superseded the

Business Review. Following the CA modification, FRC issued an Exposure Draft that proposed some guidelines for SR preparation (FRC, 2013)[1]. In the CA and the FRC Guidance, the description of the company's BM plays a central role. The FRC's position is similar to the Financial Accounting Standard Board's position about the MD&A contents, and the International Accounting Standard Board's (IASB) proposal concerning the Management Commentary issues (IASB, 2010).

To be effectively communicated, the holistic and multifaceted dimension of the BM has to be conveyed by means of a story (Beattie and Smith, 2013; Ghaziani and Ventresca, 2005; Magretta, 2002). In fact, one of the objectives of the FRC Guidance is to set out high-level principles that enable entities to "tell their story" (FRC, 2013; §1.1).

The story can be expressed in different forms: numbers, sketches/visualizations, and narratives (Dumay, 2008; Dumay and Cuganesan, 2011; Mouritsen *et al.*, 2001; Zambon and Marzo, 2007). The narrative is the key form (Beattie and Smith, 2013; Holland, 2004, 2006). For a firm, to embrace a BM as a narrative means to construct a representation of how it might succeed in a particular environment, identifying itself with similar firms and, at the same time, disassociating itself from others (Lounsbury and Glynn, 2001; Perkmann and Spicer, 2010).

The quality of the BM story that a company offers its stakeholders depends on a few characteristics among which relevance is crucial. Relevance (and materiality that is an entity-specific aspect of relevance) is a key characteristic of the whole communication conveyed through the Annual Report (IASB, 2013, § QC6-QC10, QC11). The concept at issue is a focal concern also for narrative reporting, according to FRC, which evokes the same concept for the SR (FRC, 2013, Glossary), and IASB (IASB, 2010, §21).

Relevance depends on a few qualitative characteristics that the story should possess. To identify the genuine meaning of the BM concept and its distinctive characteristics, a multidisciplinary approach is necessary that takes into account contributions offered in different research fields (Beattie and Smith, 2013; Cocchi, 2013). From this complex background, it clearly emerges that the BM notion is an autonomous unit of analysis (Beattie and Smith, 2013; Zott *et al.*, 2011). Three dimensions, in particular, impinge on the relevance of its communication:

- (1) *Completeness*: the disclosure should offer a complete identification and description of the elements that are compounded in a company's BM, winnowing them from other neighbouring concepts. In this respect, research and practice point out that the BM notion is distinct from that of strategy. The competitive strategy deals with how a company differentiates itself, while the BM defines on which basis this is to be achieved, i.e. how a company combines its know-how and resources to deliver the value proposition (Casadesus-Masanell and Ricart, 2010). The same idea is proposed in the CA and by the FRC. In the FRC Guidance we read that "objectives, strategy and business model are inter-related concepts. [...] An entity will then apply its business model to its activities in pursuit of its objectives and strategies" (FRC, 2013, §6.30). In the same way, the BM concept is related to, but different from, the value chain notion (Amit and Zott, 2001; Klang *et al.*, 2010; Magretta, 2002). A value chain is a set of serially performed activities for a firm in a specific industry (Porter, 1985), while a BM extends the value chain concept beyond the boundaries of a firm. It integrates external factors (like customers, competitors, suppliers, etc.) and processes (i.e. activity chains) that enable transactions and influence a firm's performance (Amit and Zott, 2001; Hedman and Kalling, 2003).

- (2) *Focus*: in order to be relevant, BM description to external parties should be focused on the contribution of BM components to the uniqueness of a company's value creation process (Björkdahl, 2009; Chesbrough and Rosenbloom, 2002; FRC, 2013, §6.38). In fact, "a generic organization diagram illustrating the process of transforming inputs to outputs in a chain – like fashion" does not allow the reader to understand where the focus is in the organization and what the key value aspects of the BM are (Nielsen, 2010, p. 14). The communication should not also refer to a generic industry BM, because competition is between competing business concepts in the same industry (Hamel, 2000). For this reason, FRC underlines that "the communication of the entity's business model should describe, at a high level, what makes the entity different from, or the basis on which it competes with, its peers" (FRC, 2013, §6.38).
- (3) *Connectivity*: the story should communicate the connections among key tangible and intangible factors, which settled the value creation process, enabling market participants to gain an integrated view of that process over time (Holland, 2004). Thus, the relevance of the story depends on its capacity to throw into relief the causal relationships that intertwine the elements involved in the value creation and capture process within a BM, presenting intangible resources not "on hold", but "in action" (Chiucci, 2013). That of connectivity is the fundamental issue of the BM communication, as IIRC stresses when it states that "an integrated report model should show a holistic picture of the combination, interrelatedness and dependencies between the factors that affect the organization's ability to create value over time" (IIRC, 2013, p. 5).

The peculiarities of the BM concept commented in the previous paragraphs, and the criticalities a company has to deal with to make the BM communication relevant, suggest the following research question to guide an analysis of BM communication:

RQ1. Is BM communication in the Annual Report relevant, in that it is able to shed light on the context in which intangible assets work and dynamically take part in a company's value creation and capture process?

Answering this question, this paper accepts the Beattie and Smith's invitation to delve into the BM communication with the aim to uncover the qualitative strands that are crucial to provide an accurate description of a firm's characteristics (Beattie and Smith, 2013, p. 253). In this way, this paper contributes to the debate on the developments in business reporting models, seeking to show the limitations of the traditional reporting, especially in relation to intangibles. At present, this debate is controversial. It was authoritatively noted that "the demand for information on business drivers and business models is central for many of those who propose reform of business reporting, it is not entirely clear what it means or whether it would really be worthwhile to meet it. Further work is needed to investigate what information on business drivers and business models could usefully be disclosed, what information is disclosed currently, and how useful it is" (ICAEW, 2009, p. 37).

In light of this, a qualitative analysis of BM communication, run in the context of the CA revision, offers the opportunity to verify the effectiveness of approaches, like that adopted by FRC, which would like to discipline the narrative communication by means of principles, complemented by some generic guidelines. Some pieces of

research put a finger on the limitations that such an approach shows when it is implemented (Baldwin *et al.*, 2011). Therefore, the FRC Guidance about the BM communication risks not bringing about the desired effects, confirming the ICAEW perplexities.

In this respect, with considering the enforcement of the new CA rules, this paper implicitly answers some questions asked by the FRC itself in its Draft (see FRC, 2013, Invitation to Comment) and offers useful hints to improve the narrative information system.

4. Sample

To investigate “the extent and nature of reporting of BM constituent concepts” (Beattie and Smith, 2013, p. 253), this paper analyses a sample of listed UK companies, as they are obliged to disclose their BM in the SR.

The revised CA requires UK companies to prepare a SR as a separate section of a company’s Annual Report for periods ending on or after 30 September 2013. This document replaces the previous Business Review, with the aim to improve corporate reporting quality (FRC, 2013, §1.1). One of the most relevant modifications introduced by the new regulation concerns the mandatory disclosure of a description of the company’s business model.

This paper focuses its analysis on the FTSE techMARK Focus Index. BM is an external identity that a firm can assume to obtain legitimacy in the eyes of investors, suppliers and clients (Perkmann and Spicer, 2010). Consequently, BM disclosure is crucial for firms in new technology contexts, which are characterized by high uncertainty over future performance (Zott and Huy, 2007). For companies operating in these industries, intangible resources are more valuable than tangible ones, and a lot of them are not properly represented in the financial statements (Singh and Kansal, 2011; White *et al.*, 2010). Therefore, the analysis assumes that high-technology industries might take advantage of the CA revision, paying very close attention to BM reporting.

On 30 March 2014 the FTSE techMARK Focus Index included 49 companies. To standardize the sample, only 2013 Annual Reports at the end of December were considered. This reduced the sample to 45 companies. The authors read each SR and selected the section devoted to BM. They excluded ten SRs, as they did not include any information on company’s BM. This high number of non-disclosing firms might be justified by the fact that 2013 is the first year of adoption of the emended CA. As this analysis does not focus on the company’s compliance issue, these non-disclosing firms were omitted. Therefore, the final sample consists of 35 SRs.

5. Method

5.1 *The assessment of BM disclosure*

Drawing on the background depicted in Section 3, the BM disclosure quality was assessed by considering three dimensions: completeness, i.e. a comprehensive description of a company’s BM, including all BM components; focus, which aims to assess whether BM disclosure really explains the value creation story; connectivity, which is the level of interrelations among BM descriptions. These three dimensions of analysis are aligned with the proposal for BM disclosure included in the IIRC’s Framework on Integrated Reporting (IIRC, 2013). In fact, the IIRC’s Framework implies a complete communication of all the BM components and highlights that a company’s BM disclosure should focus on information that has a material bearing on

the ability to create value in the short, medium, and long term. This disclosure should also show connecting elements such as diagrams, dependencies, and quantitative measures (IIRC, 2013, §4.13-4.15).

The analysis framework was developed on the basis of a formal ontological approach to the BM domain (Gruber, 1993). According to Fensel (2001), an ontology provides a shared and common understanding of a domain, which can be communicated to people, by defining its notion, its elements, and the relationships among these elements.

In the literature, there are at least three ontologies, proposed by Gordijn (2002), Petrovic *et al.* (2001), and Osterwalder *et al.* (2005). A further reference ontology can be added to these proposals, which is built by putting together the existing ontologies (Andersson *et al.*, 2006). This study refers to the ontology proposed by Osterwalder *et al.* (2005) because this appears the most adequate to assess BM disclosure. In fact, the Osterwalder *et al.*'s ontology is built on existing BM literature. Its building blocks cover all the BM components mentioned at least by two authors in the field (Osterwalder, 2004). In addition to this, the BM components are defined with high level of detail, facilitating the measurement process. Lastly, this ontology offers a clear explanation about the interactions among the BM components, which is helpful in identifying the focused information and the level of connectivity.

The ontology consists of four main pillars, which represent the different areas related to the value creation process. As some BM aspects have their locus inside the firm, while others are related to company's external stakeholders or its environment, two components are externally oriented (Product and Customer interface), while the others are internally oriented (Infrastructure management and Financial aspects). These four main pillars are split into nine building blocks: Product pillar encompasses Value proposition; Customer interface pillar considers Target customer, Distribution channel, and Relationship; Infrastructure management pillar includes Resource and capability, Value configuration, and Partnership; Revenue model and Cost structure instantiate the Financial pillar.

5.2 The content analysis of BM disclosure

A manual thematic content analysis was adopted to assess the quality of BM disclosure provided by sample firms. The use of text-analysis software was excluded, as coding procedures require high level of interpretation (Lee and Guthrie, 2010). High transparency concerning analysis procedures is recommended to guarantee the reliability of results (Beattie and Thomson, 2007; Guthrie *et al.*, 2004). To run the analysis, this paper referred to Weber (1990, pp. 23-24).

"Text-unit" is chosen as a recording unit (Beattie and Thomson, 2007; Husin *et al.*, 2012). The text-unit is defined as "each group of words containing a 'single piece of information' that is meaningful in its own right" (Beattie *et al.*, 2004, p. 207). Text-units are used instead of sentences, as they reduce the subjectivity in coding complex sentences. When different information pertaining to different categories is included in the same sentence, the use of text-units allows the coding of different information in different categories. On the contrary, the entire sentence should be classified in relation to the dominant category, by providing other coding rules to identify dominant themes that increase the level of subjectivity in the analysis (Beattie and Thomson, 2007, p. 142).

This analysis also includes visual forms of communication, such as diagrams, tables, and schematics (Beattie and Thomson, 2007; Husin *et al.*, 2012). As performance indicators and graphic elements are largely advocated as important tools for a multilevel disclosure of a company's BM and IC (Demil and Lecocq, 2010; Klang *et al.*, 2010; Mouritsen *et al.*, 2001),

the analysis might be incomplete if these communication forms were excluded. The importance of metrics and visualizations for indicating the causal relationships among the BM elements is also underlined in the FRC Guidance (FRC, 2013, §. 6.9).

Content analysis is usually based on coding categories developed in previous studies to enhance results' comparability (Beattie and Thomson, 2007; Steenkamp and Northcott, 2007). To the knowledge of the authors, no previously published studies have been conducted on BM disclosure. Only Lai *et al.* (2013) proposed a framework of analysis for BM disclosure, but with specific regards to extensiveness of covered topics and language attributes. Therefore, as explained before, a tailored coding scheme, based on an ontological approach, was developed.

Each text-unit was analysed following three levels of coding. In the first level, the authors identified the text-units that fall in the nine pillars. Table I, panel 1, reports a brief description of the contents included in each pillar. Since the nine pillars are clearly distinguished from each other, the analysis did not face any problem concerning the boundary issue, i.e. the presence of text-units that can be categorized into more than one pillar (Husin *et al.*, 2012).

Some firms in the sample reported the description of their BM and strategy in the same section. Generally, the information related to strategy was clearly identifiable, thanks to the presence of specific keywords (i.e. our strategy, our strategic goal, etc.). In the absence of any keyword, the study considered that information referring to firm's ambitions, intentions, and plans did not address the concept of BM.

In the second level of coding, each text-unit, categorized in one of the nine pillars, was coded referring to the focus attribute. Table I, panel 2, summarizes the main concepts adopted to identify focused information for each pillar. To better illustrate the coding procedure, some examples are provided below.

The following text-unit was classified as focused, as it explains which are the product's characteristics that differentiate the firm's products from competitors:

- Cobham's products are often smaller, lighter and use less power than competing technologies (Cobam, §56).

On the contrary, the two text-units below were coded as non-focused, as they consist of mere descriptions:

- we are a "fabless" semiconductor company (CSR, §77); and
- our continued innovation ensures that we stay ahead of the competition (Dialight, §102).

Quantitative and graphical information (performance indicators, diagrams, etc.) was always coded as focused.

The third level of coding refers to the level of connection among focused information. To identify the linkages among the text-units, this paper considered both explicit connections, expressed by connectives (that is, joining words used to connect phrases together into longer sentences), and implicit connections, provided by the text construction (Renkema, 2009). The sentence below provides an example of explicit connection between a focalized text-unit about firm's customer (Targ_cost) and a focalized text-unit concerning firm's revenues (Rev_model). The link between the two text-units is expressed by the causal connective "as" (in bold):

[**As** our customers include the world's largest semiconductor companies] Targ_cost, [their regular royalty payments have become a reliable cash flow] Rev_model (ARM, §32-33).

BM building block	Panel 1: information related to the building block	Panel 2: key concepts used to identify focused information
Value proposition	Descriptions illustrating a company's products and services	How products and services, as well as complementary value-added services, differentiate a company compared to its competitors Why a company's value proposition could be valuable to the customer At which stage of the value life cycle a company value proposition creates value
Target customer	Descriptions about a company's market segment or the existing customer portfolio	How a company identifies its customers Segmentation strategy adopted
Distribution channel	Descriptions about a company's delivery system and marketing tools activated to reach the customers	How advertising, promotions, public relations partnerships and other initiatives are used to maximize the number of customers Support services concerning the evaluation process, the transaction or the after-sales assistance, which are aimed at increasing the value for the customer
Relationship	Descriptions about interactions and/or relationships of a company with its customers	Initiatives aimed at attracting and acquiring new customers Ways and mechanisms to extend the duration of the relationship between a company and its customers Every action aimed at selling any additional products and services to current customers
Resource and capability	Descriptions about a company's resources and capabilities, including human capital, relational capital, structural capital, connectivity capital, financial capital, and physical capital	How certain inputs and abilities underpin a company's creation process
Value configuration	Descriptions about a company's activities or groups of activities, including inbound logistic, operation, outbound logistic, marketing and sales, services and support activities	How certain activities or group of activities drive a company's value creation process
Partnership	Descriptions of a company's arrangements with one or more entities to carry out a project or specific activity jointly	How a certain company's arrangement with one or more entities is able to create value for the company and/or for the customers
Revenue model	Any information about a company's revenue and financial performance	How the value proposition results into revenue streams How pricing mechanisms are defined How a company's value proposition turns into financial performance
Cost structure	Any information related to a company's costs	How significant costs are managed to reduce their impact on a company's performance

Table I.
The components of
BM

The following sentence illustrates the case of implicit connection. Three focused text-units have been coded in this paragraph. The first illustrates how the firm manages the key activity concerning pig multiplication. The following two text-units explain the advantages derived from the collaboration with outsourced companies. In this case, the linkages are provided through the verbs (in bold):

[In our porcine business, we outsource more than 95% of our pig multiplication requirements to third-party producers or customers]. Value_conf [Our network of multiplication partners is a significant strength **allowing** us to meet demand for our genetics] Partnership [while **reducing** our exposure to farming and commodity risk] Partnership (Genus, §27-28-29).

According to Milne and Adler (1999), there are two reliability issues in using content analysis to investigate disclosure. The first deals with the definition of well-specified coding rules, to facilitate consistent coding decisions across time and researchers. Second, the reliability of coding decisions adopted by researchers needs to be demonstrated through adequate measures.

As regards the first point, researchers discussed data collected from a pilot study of ten SRs (not included in the final sample), and inconsistencies were resolved through discussion. Thereafter, two SRs (included in the sample) were analysed by the same researchers to verify the coding agreement. The rate of agreement was over 95 per cent, which was considered to be satisfactory (Clatworthy and Jones, 2003; García-Osma and Guillamón-Saorín, 2011). Final coding instructions were reported in a coding manual and applied by the same two coders to the remainder of the sample. The rate of agreement was recalculated for the total sample to verify that it was over 95 per cent. Moreover, to assess the stability across time of the coding procedures, two SRs were recoded after one month. The few discrepancies that were found confirmed the reliability of the adopted procedures.

6. Results

6.1 *How firms describe their BM*

Within the SRs that were analysed, 1,529 text-units were coded, devoted to BM (Table II, panel a). Results show that BM disclosure is mainly focused on two specific topics, Value proposition and Resource and capabilities, which represent together 60 per cent of the total disclosures. The majority of firms does not disclose any information about Cost structure, which consists of only 15 text-units, equal to 1 per cent.

To justify high concentration of BM disclosure around the description of firm's resource and capabilities, we have to take into account the magnitude of information included in this category. A more detailed analysis shows that firms mainly focus on specific categories of resources, especially physical and human resources. While resources are described in detail, much less information is provided about capabilities, which the IC is largely based on and represent the core of a company's competitive advantage. This poor attention to this crucial issue might suggest that firms consider their ability to integrate, build, and reconfigure internal and external competences very proprietary information.

Table II, panel b, shows the number of text-units disclosed by company. Every company discloses at least one piece of information about its Value proposition, and most of them spend a lot of words on this topic. This evidence documents a strong consensus among firms about the pivotal importance of the offering factors in BM description. The recommendations included in the FRC Guidance may have influenced this result, as they explicitly advise companies to "describe what the entity does and why it does it" (FRC, 2013, §6.38).

In the same way, the absence of any reference in the Guidance about the financial aspects may justify that most of the companies neglect this topic. The few firms that disclose information on their Revenue model mainly focus on how revenues are generated, while Cost structure information usually refers to specific initiatives or mechanisms aimed at cost saving. The low level of coded information related to financial aspects, on average, about four text-units, does not mean that firms do not disclose financial information, when they present their BM. On the contrary, several firms report many financial performance indicators and comment on their economic performance and/or their financial structure. However, such information is mainly geared towards offering an overview of financial results for the reported financial year, instead of providing a comprehensive illustration of a firm's ability to translate the value it offers its customers into money and revenue streams (Petrovic *et al.*, 2001).

Table II, panel c, exhibits the average number of focused text-units coded for each topic. As explained before, to code BM information according to the focus dimension, this study assessed whether the text-unit is centred on firm's value. Less than half of the coded text-units, 720 out of 1,529, focus on value creation, even if we can observe several differences among the topics. In particular, only a little over a third of the text-units devoted to Resource and capability illustrate how a firm's physical and intellectual capitals are involved in value creation processes. Similarly, few disclosures on Value proposition adequately centre on how products and services differentiate the firm from its competitors.

In many other cases, the information provided mainly consists of a firm's offering description.

On the contrary, despite the fact that firms offer few disclosures about their Relationship and Partnership, in most cases this information explains how these relationships are able to create value.

Disclosure practices differ considerably among firms, with a minimum amount of focused text-units equal to zero and a maximum equal to 50 (Table II, panel d).

Moving to comment on the level of interrelation among the pieces of information, this study found a low number of connected text-units, only 173 out of 720, equal to 24 per cent of the focused information provided. This result points out that firms are scarcely aware of the interconnection issue. Most of connections link a firm's Value proposition with other elements such as Customer relationships, Target customers, or firm's Revenue model. The predominance of links involving a firm's Value proposition is not surprising, taking into account the central role of this element in BM descriptions.

BM disclosure often consists of a series of descriptions of different elements, which are presented in autonomous paragraphs or sections. These disclosure practices may reflect a firm's desire to make BM information easier to read, by avoiding the inclusion of complex elements to explain. On the other hand, this approach prevents shareholders from a comprehensive understanding of the value creation mechanisms and a view of the IC "in action".

6.2 BM disclosure patterns

To provide an overall assessment of BM disclosure practices, this study worked out an interpretative framework that maps different disclosing patterns, based on the three dimensions that were analysed before. More precisely, the minimum disclosure level that offers a complete description is accomplished when at least a piece of information for each of the four pillars is provided. Furthermore, it is assumed that BM disclosure is

focused if at least a piece of focused information for each disclosed component is found. Finally, BM disclosure has been classified as connected when at least one “node” among the focused information is found.

Based on these dimensions, five disclosure patterns were identified, as illustrated in Figure 1.

This study identified as No BM disclosure a BM description that neglects some of the BM components and mainly provides information that is not value oriented. The description of all the components, but in the absence of any focused information, was labelled as Boilerplate disclosure. When focused information is provided only for some pillars, we have a partial representation of BM (Partial BM disclosure). Only when a company offers complete and focused information, i.e. focused information is provided for each BM pillar, it actually represents its BM (BM disclosure).

However, the dimensions of completeness and focus are necessary but not sufficient conditions to accomplish a Relevant BM disclosure, useful for understanding a company’s strategy for value creation and the role played by the IC in this strategy. Only whether BM description puts into evidence the interactions among the BM elements, it offers a disclosure, which is conducive to effectively presenting a company’s IC in action, as the IC elements can be interpreted in a dynamic perspective, understanding their contribution to the value creation process driven by the strategic choices of the company’s management (Nielsen *et al.*, 2008). On the opposite, when BM presentation is complete and focused, but it does not show the connections among the elements, it can offer only a representation of a company’s IC on hold, as “intangible resources are extracted from the context in which they work” (Chicchi, 2013).

In light of these patterns, this paper interpreted disclosure practices of the sample firms. It emerges that only 17 out of 35, equal to about half of the sample, provide a BM disclosure. Of these, 13 companies offer a Relevant BM disclosure, as they show their IC in action. For the rest, 11 per cent of companies communicate a Partial BM disclosure, while 20 per cent provide a Boilerplate disclosure. Lastly, 20 per cent of companies report a BM description that is neither complete nor focused – substantially they do not report their BM. We have to consider that these firms mainly base their value creation

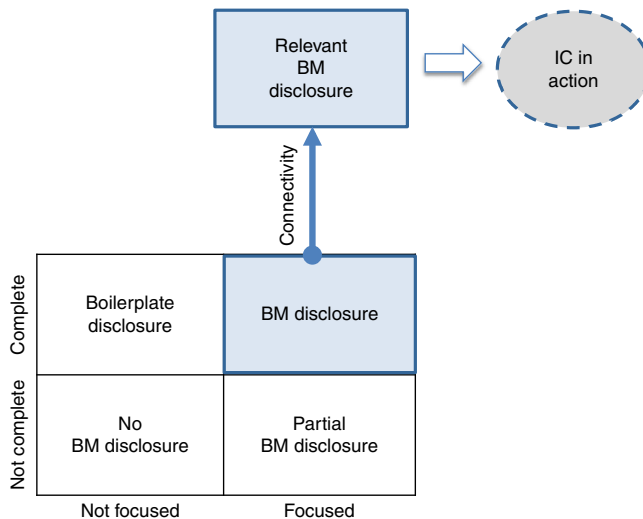


Figure 1.
BM disclosure patterns

on knowledge resources, as they operate in high-technology industries. This evidence suggests that firms are scarcely interested in or not completely aware of the importance of providing stakeholders with an integrated representation of their BM and IC elements.

7. Conclusion

This paper investigates BM disclosures of a sample of listed UK companies after the introduction of mandatory requirements by the emended CA.

Over the last decade, in parallel with the explosion of the BM concept in management studies, a growing number of researchers and practitioners have recognized the potential of the BM concept also in the accounting field, especially concerning the narrative reporting. Focusing on the strong interrelations between the IC concept and the BM concept, several researchers have proposed the BM as an overarching unifying framework for company's IC disclosure (Beattie and Smith, 2013; Nielsen, 2010; Nielsen and Bukh, 2013). However, BM reporting raises new challenges, in particular concerning disclosure modalities. As the UK is the first country to explicitly mandate the BM disclosure in the Annual Report, this paper offers a detailed depiction of BM disclosure from a preparers' perspective. Thus, it answers the call for empirical research on BM reporting adopted by firms (Beattie and Smith, 2013; Bukh, 2003).

By developing a specific framework of analysis, this study followed three major avenues of enquiry to examine BM disclosure quality of a sample of companies in the FTSE techMARK Focus Index. First, the attention was focused on what information companies report when they describe their BM. Then, the study aimed to understand to what extent information is value oriented. Finally, it assessed whether a company's BM disclosure is able to convey a cohesive story that highlights the interconnections among the different information disclosed.

Overall, results document that only a restricted number of companies take advantage of the compulsory requirement to communicate their value creation story. In total, 12 years after Bukh's (2003) complaint about the inadequacy of IC reporting compared to analysts' expectations, this study suggests that such gap is not limited to Danish firms and it has persisted over time. As firms continue not to explain those elements and interconnections that are relevant for understanding a firms' value creation, then the analysts must do the interpretation (Bukh, 2003, p. 54).

These results lead to substantial concerns about the effectiveness of a mandatory intervention with loose specification to regulate BM disclosure. Two main issues emerge:

- BM disclosure is scarcely focused on value creation. Therefore, firms prevent stakeholders from fully understanding how companies create value and how IC actively contributes to generate such value. These results might be influenced by the lack of specification of BM-component description provided in the FRC Guidance. Consequently, they offer some suggestions in response to the FRC's call for comments concerning the materiality of information included in the SRs (FRC, 2013, Questions 4, 8, and 9). A BM definition that does not precisely identify the boundaries of the BM concept carries with it the risk to confuse BM with other correlated information. On the other hand, the absence of a clear identification of the BM components increases the risk of boilerplate disclosure and of selectivity strategies, as firms can decide to focus their attention on specific contents.

- UK companies scarcely take into account the connectivity issue, despite the fact that this is seen as an essential aspect in the BM disclosure by the FRC itself (FRC, 2013, §6.41). Following a silos approach, firms mainly disclose a list of key drivers, which are not “entangled” into the narrative and do not help to explain how its IC is integrated with a company’s BM.

These issues suggest that the development of a detailed framework, which clearly identifies the role of BM disclosure, within business reporting, and the connections between BM and IC disclosure, might be helpful to orient disclosure practices towards a common objective. For instance, the IIRC Framework for Integrated Reporting (IIRC, 2013) places the BM as a constituent element of a more general disclosure framework.

This paper is an exploratory analysis aimed at investigating firms’ practices of BM disclosure. It has focused on a specific sample, which consists of firms operating in high-technology industries. Additional research should enrich this paper’s results, highlighting differences among industries and corporate determinants of this kind of disclosure. A further development of this paper is also the analysis of the relationships between the degree of BM communication and the reactions of the financial market.

Note

1. In 2014, FRC published the final version of Guidance on the Strategic Report (FRC, 2014). Because the analysis focuses on 2013 Strategic Reports, the paper refers to the Exposure Draft.

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