Where there is a will there is a way

IC, strategic intent, diversification and firm performance

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Abstract

Purpose – The purpose of this paper is to examine whether strategic intent influences developing intellectual capital (IC) and if IC affects performance measured in terms of product and service diversification within small and medium enterprises over time.

Design/methodology/approach – This study discusses if and how structural equation models can be located within the third stage of IC research, and subsequently presents an analysis developed using 1,392 questionnaire responses through a temporal lens.

Findings – Empirical results show how relational, human and structural capital strongly connects to support a firm's performance measured in terms of product and service diversification. Additionally, IC and strategic intent influence each other creating a constraint effect on one side and an ambition effect on the other. Interestingly, the constraint effect is much higher than the ambition effect, and this falls in line with a contingency approach to strategic intent.

Practical implications – Several practical implications are developed. First, results show that high regulation where firms can offer mandatory product/services can limit IC development. Therefore the findings contribute to the dialogue between policy makers, managers and businesses. Second, business schools should consider how strategic intent contributes to developing IC in order to design future curricula for accounting and management studies. Third, firms that operate in similar contexts should pay attention to managerial myopia due to low competition where a significant part of firms' revenues is from mandatory product/services.

Originality/value – This paper contributes to the existing literature by investigating how IC affects strategic intent and how strategic intent fosters IC development. Additionally, findings build on existing theory, helping to understand how IC affects performance measured in terms of portfolio diversification.

Keywords Performance, Diversification, Structural equation model, Intellectual capital, Accounting practices, Strategic intent

Paper type Research paper

Introduction

The old English proverb "where there is a will there is a way" means that people with high determination find a way to achieve their aims. Within the business literature, the firm's will represents the strategic intent, while intellectual capital (IC) offers a way to reach desired aims. Interestingly, how to develop IC according to a

Journal of Intellectual Capital
Vol. 16 No. 3, 2015
pp. 490-517

1469-1930
DOI 10.1108/JIC-07-2014-0091

firm's strategic intent and what are its impacts on firm performance is unclear. The aim of this paper is first to examine whether IC development is influenced by strategic intent and second if IC affects performance. Specifically, the influence of IC on performance is theoretically discussed and analysed through the lens of diversification. The research context is based on small- to medium-sized enterprises (SMEs), and more precisely on small and medium accounting practices. These SMEs are important business advisors to other SMEs, and represent an interesting context in which to study IC due to the nature of their business, which is mainly characterised by intangible resources.

Within the specific research context, this study discusses if and how statistical analyses can be applicable within the "third stage of IC" and presents a structural equation model (SEM) as a useful approach to gathering insights on "how IC works". Therefore, this research uses SEM to analyse 1,392 questionnaires returned from a population of 11,267 small and medium accounting practices.

Using a temporal lens, the research outlines how existing IC at time-t strongly influences strategic intent but weakly influences the development of IC at time-t+1. Therefore, the proverb "where there is a will there is a way" that is the starting point of the research requires insights to be fully understood and cannot be taken for granted from a managerial perspective.

These findings build upon existing literature within the under investigated context of IC and SMEs. More precisely, this paper presents interesting insights within the context of small and medium accounting practices. Using a contingency approach it explains the low connection between strategic intent and IC development.

The findings are useful also at a practical level. First, the results contribute to the dialogue between policy makers and managers. Several European countries show low-IC development and, for most of them, structural reforms are a priority (Lin *et al.*, 2012). The findings show that high product market regulation, whereby firms supply mandated product and services, can create a conservative approach within these business sectors that limits IC development. Second, the results contribute to the dialogue between professional accounting bodies and business schools to develop the accounting curriculum. Third, findings can stimulate managers of SMEs to reflect on portfolio diversification choices by showing how firms providing mainly mandatory products and services limit their competitiveness by reducing IC development. Therefore, a manager's risk appetite is stimulated because the reduced competitiveness of a highly regulated market creates myopia, whereby managers focus on short-term profit strategy rather than on long-term profitability. This short-term view could seriously erode firm competitiveness and subsequently harm firm performance.

Eight further sections constitute this study. The first section examines the literature surrounding the connection between IC, strategic intent and performance and proposes two research questions. The second section locates the analysis within the specific context of small and medium accounting practices and presents the main characteristics of these firms. The third section presents the methodology and locates the study within the "third stage of IC" (Guthrie *et al.*, 2012). The fourth section introduces the hypothesis for testing while the fifth section illustrates the survey instrument and describes the measurement process. The sixth section depicts the main results and the seventh provides a discussion of the empirical evidence and its implications from a theoretical and managerial perspective. The last section presents conclusions and offers insights for further developments from this study.

Literature review

This section illustrates a brief description of the main theoretical debates linking IC, strategic intent and performance to outline two research questions.

IC and strategic intent

This section provides insights into the relationship between IC and strategic intent in developing competitive advantage and formulates the first research question. According to Dumay and Guthrie (2012, p. 29) "Discussing strategy from an IC lens is useful because one of the reasons firms employ IC practices is to develop a competitive advantage over their rivals". According to this competence-based view of competition "IC should be one of the central considerations in formulating strategy and one of the primary constants upon which a firm can establish its identity and frame its strategy, as well as one of the primary sources of the firm's profitability" (Marr *et al.*, 2003, p. 444). Additionally, Dumay and Guthrie (2012, p. 29) argue "strategy helps with understanding how IC practices contribute towards competitive advantage".

Edvinsson (2013, pp. 164-165) identifies that IC is evolving – "from reporting of IC as a position to a process view of the non-hierarchical interaction and interdependencies between the IC components that shape value". Interactions are a key concept in IC because as Kong and Thomson (2009, p. 359) recognise, human capital (HC) depends heavily on structural capital (SC) and on relational capital (RC). Additionally, "the contact between employees and customers enables employees to understand customers' needs" (Shih *et al.*, 2010, p. 81), fostering both the development of RC and HC. Managing RC, firms can obtain access to critical knowledge (Delgado-Verde *et al.*, 2011, p. 7; Gruner and Homburg, 2000, p. 2). The need to manage all this knowledge requires the support of SC, which "brings a relevant improvement in organizational effectiveness through coordination" (Delgado-Verde *et al.*, 2011, p. 7). Thus, HC, RC and SC are strongly connected, interacting to shape firms' IC (Hsu and Sabherwal, 2012; Hsu and Wang, 2012; Peppard and Rylander, 2001; Rylander and Peppard, 2003). Therefore, IC should be analysed considering HC, SC, RC and their interactions.

IC as a resource should also be analysed through a strategic lens. As Roos *et al.* (2001, p. 26) argue, analysing IC from a strategic viewpoint forces managers to focus not only from a rational lens but also from an emotional and political lens, because strategy is meaningful only when it is backed up by committing to people. Indeed, a shared strategic intent is characteristic of visionary leadership, and it helps to create a driving force for developing IC (Bratianu and Orzea, 2013, p. 139). Hamel and Prahalad (1989, p. 64) define strategic intent as the essence of winning that pushes firms to create and sustain consistent motivation to overcome resource constraints. "Whereas the traditional view of strategy focuses on the degree of fit between existing resources and current opportunities, strategic intent creates an extreme misfit between resources and ambitions" (Hamel and Prahalad, 1989, p. 67). Therefore, IC should be analysed from a strategic perspective considering its interaction with ambitions and desires embedded within firm's strategic intent.

For example, Hamilton *et al.* (1998, p. 406) focus on the connection between resources and strategic intent and state that the critical issue for successfully implementing strategic intent is that all people within the firm must share "a sense of obligation to the corporate challenge". Therefore, "IC is not the key, but the alignment between IC and a firm's business strategy […] understood by people from different functions" (Yu and Humphreys, 2013). According to Mantere and Sillince (2007, p. 417) "strategic intent creates purpose when it focuses people's minds on progress towards a distant

objective". Additionally, by spreading their strategic intent, firms can create a communicative action and "can generate a series of benefits, such as establishing new channels for elucidating strategy, redistributing access to existing information, or providing new information for a more in-depth discussion of IC" (Yu and Humphreys, 2013). Through this process people within the firm have to search for and spread the knowledge required to fit the desired strategic intent (Gratton, 1994, p. 48) and thus, the whole strategy formulation process should start with competent people (Sveiby, 2001, p. 345). Therefore, strategic intent and IC are strongly connected and influence each other.

The connection between IC and strategic intent focuses both on the stocks and flows of intangible resources embedded in a firm (Peng, 2011, p. 22), with the flow perspective being the dominant view. From the flow perspective, IC is "a complex and dynamic system powered by integrators and driven by vision" (Bratianu and Orzea, 2013, p. 134) and should be thought as a flow more than as a stock (Marzo, 2014, p. 52). Interestingly, Edvinsson (2013, p. 166) states that "traditional measurement tools are too limited and do not capture the flow of knowledge, the impact of the flow and the value creating dimensions over time". Strategic intent helps the dynamic flow process by providing a common vision across the firm and focusing on shared goals (Rylander and Peppard, 2003, p. 321). Strategic intent creates the target that should guide IC development and "organizations wishing to develop IC may benefit from considering how the development IC fits with the strategic intent of the organization" (Dumay and Roslender, 2013, p. 265). By contrast, strategic intent cannot be considered an unfettered ambition and firms have to manage carefully their competitive engagements so scarce resources are conserved (Hamel and Prahalad, 1989, p. 69). According to Edvinsson and Kivikas (2007, p. 381) "showing how those factors influence one another gives management another priority list of where to take action (and also where not) and therefore helps them to allocate investments more efficiently".

Concentrating on IC as a flow focuses on who is part of it, and thus the temporal lens becomes a critical approach for analysing the evolution of IC (Giuliani, 2009, p. 246). There are three reasons to study the IC temporal lens. First, "IC elements are not stable; they do not always display the same features, and they may even cease to exist or change intensity, direction and nature over time" (Montemari and Nielsen, 2013, p. 524). Second, as Naidenova and Parshakov (2013, p. 636) state, "there is a certain inertia which delays total and immediate use of benefits derived from IC investments". Third, "the formation of a company's intellectual capital does not happen overnight" (Heng, 2001, p. 54). Thus, the impact of IC takes time before managers can evaluate IC. Additionally, firms "adopt different disclosure strategies in different time periods to address the needs of the corporate stakeholders and also to address events that might potentially affect corporate image" (Haji and Ghazali, 2012, p. 382). Thus, IC evaluation requires a longitudinal analysis to avoid contingent and time-dependent effects. Indeed, "the intellectual capital formation process is both evolutionary and creative, often influenced by the environment, market context and managerial personalities at the moment of time and space" (Heng, 2001, p. 54). Interestingly, "the temporal lens allows for a simultaneous consideration of both static and dynamic properties of IC because it permits focusing on new classes of independent and dependent variables" (Giuliani, 2009, p. 247). Therefore, the following research question develops from a temporal IC lens:

RQ1. How does IC and strategic intent influence each other evolution over time?

Depicting the IC performance relationship: the role of diversification

This section's purpose is to provide insights into the relationship between IC performance and the role of diversification, and formulate the second research question. Several studies argue there is a direct relationship between IC and firm performance (Cheng *et al.*, 2010; Peng *et al.*, 2007; Sharabati *et al.*, 2010). However, despite empirical evidence confirming the existence of a positive relationship between investing in IC resources and firm performance (Demartini, 2013, p. 69), this connection is not straightforward (Jardon and Martos, 2012, p. 463). For example, in the banking sector, Curado *et al.* (2014, p. 104), state "clearly, there is no confidence in the universality that intellectual capital has a positive influence on banking performance in all contexts". Additionally, other researchers, such as Dumay and Garanina (2013, p. 18), argue that there is not a proven direct causal link between IC and performance. Therefore, the relationship between IC and firm performance is complex (Joshi *et al.*, 2013, p. 279) and requires further research.

Interestingly, "while corporate financial performance is an intuitive measure to understand how well a firm is doing, it often fails to provide information on long-term firm performance and viability" (Kang, 2013, p. 94). According to this approach, the whole concept of performance and value could be extended, including not only monetary outcomes but other elements like the worth, utility and importance of products and services to customers and other stakeholders (Dumay and Garanina, 2013). Additionally, even though several studies complement financial performance with non-financial measures (Bose and Thomas, 2007; Martín-Castilla and Rodríguez-Ruiz, 2008) empirical evidence is rare. Therefore, on the one hand there is a call for better analysing the effect of IC on performance, while on the other there is the need to enlarge the concept of performance dealing with other measures and providing empirical evidence of their connection with IC.

To deal with the IC performance problem, portfolio diversification is one possible and interesting way to enlarge the notion of firm performance. First, information like the number of products/markets or the number of new products/markets developed in a year is commonly used as non-financial performance measures (Warren *et al.*, 2008, p. 1115). Second, within several sectors, diversification directly connects with firm financial performance. Indeed, for example, within the professional services sector diversified firms demonstrate better performance and are able to outperform competitors (Bagchi-Sen and Kuechler, 2000, p. 117). Additionally, in other businesses like "the farming sector, it can be observed that diversification primarily contributes to reducing dependency on a single product, but also helps meet customer needs, use surplus resources or achieve synergy among products, markets or technology" (St-Jean *et al.*, 2010, p. 207), therefore supporting financial performance development. Interestingly, within other sectors "a number of researchers have developed theory positing a curvilinear Diversification-Performance relationship" (Palich *et al.*, 2000, p. 158). Ramanujam and Varadarajan (1989, p. 524) state that "a review of the literature reveals that there is a great deal of variation in the way diversification is conceptualized, defined and measured". However, according to Ansoff (1957, p. 117) "diversification calls for a simultaneous departure from the present product line and the present market structure". Therefore, product/service portfolio diversification is an interesting non-financial measure of performance that, within specific sectors like the professional service, directly connects with financial performance.

Additionally, diversification is an on-going process of accumulating and constructing new knowledge, and people skills are one of the main factors fostering

this process (Neffke and Henning, 2013, p. 297). Indeed, the effectiveness and efficiency of diversification is strongly connected with integrating resources in what Neffke and Henning (2013, p. 300) call "portfolio coherence". Indeed, "a diversification strategy should focus on identifying new activities requiring resources that are already possessed, but currently underleveraged by a firm" (Neffke and Henning, 2013, p. 300). Additionally, technological resources can be used in diversification strategies since they both can reduce production costs and increase product and service differentiation (Camison and Villar-Lopez, 2010, p. 122). At the same time, reputation – a key element of IC (Steenkamp and Kashyap, 2010, p. 368) – could also help firms to enter new markets, thus fostering the diversification process (Fernández-Olmos and Díez-Vial, 2013, p. 199). Camelo-Ordaz *et al.* (2004, p. 77) state that "developing and investing in knowledge and related capabilities enables companies to undertake processes of expansion and diversification, and to take advantage of the evolution of markets and future opportunities in industries of rapid growth".

Interestingly, according to Kor and Leblebici (2005, p. 938) "even though the resource-based view provides us with these key insights about the importance of firms' resources for successful diversification, the literature fails to address how strategies related to management and development of human assets at the business level affect the success of diversification strategies at the corporate level". Additionally, searching the Scopus academic online database using the keywords "diversification" and "IC" to uncover the extent of the research reveals only two articles. Similarly, the same search within the Ebsco database reveals only seven articles. None of these articles specifically addresses the topic of the role of IC on diversification. Therefore, the arguments from the IC literature is that IC can support firm diversification even though there seems to be a lack of theoretical and empirical analysis to back up the claim. This premise creates the ground to develop the second general research question, which is:

RQ2. How does IC influence firms' performance in terms of portfolio diversification?

IC, strategic intent and the performance of SMEs

This section's purpose is to outline why the research uses SMEs to investigate the two research questions. SMEs are the engine of economic growth in most European countries, accounting for two out of three jobs and around 50 per cent of the total value added created. Similarly, in Australia SMEs contribute over a third of the industry value added (Clark *et al.*, 2011, p. 3) and in the Asia-Pacific Economic Area they employ over half of the workforce (Asia-Pacific Economic Cooperation, 2014, p. 1). Additionally, SMEs differ from large firms because of their constrained resources and different managerial capabilities and practices (Cohen and Kaimenakis, 2007, p. 241). Therefore, research into the link between IC, strategic intent and diversification is important from a SME perspective because of their importance to the wider economy and a paucity of this type of IC research (Dumay, 2014, p. 12).

According to Jardon and Martos (2012, p. 463) "IC is more important as a source of competitive advantage in SMEs than large companies because tangible resources are often lower, and SMEs should compete through intangible resources". Interestingly, even though organisational knowledge is the most salient resource at the disposal of SMEs (Desouza and Awazu, 2006, p. 32), there is a lack in these organisations of specific knowledge repositories (Cohen and Kaimenakis, 2007, p. 245; Wong and Aspinwall, 2004, p. 48). HC "is managed informally, and the entrepreneur plays the role of knowledge 'storage', whereas organizational knowledge is being created, shared and

transferred through members of the organization without the intervention of specific systems" (St-Pierre and Audet, 2011).

SMEs also leverage RC to acquire knowledge and increase performance (Døving and Gooderham, 2008, p. 847). Continuously interacting with partners and customers improves reciprocal trust, enforces personal and organisational relationships, aligns beliefs and motivates teaching and learning, fostering RC (Bell and Zaheer, 2007; Bennett and Robson, 2004; Easterby-smith *et al.*, 2008; Lyles and Dhanaraj, 2004). The need to interact forces organisations to structure processes with customers and suppliers to reduce costs and increase effective knowledge exchanges (Easterby-Smith *et al.*, 2008; Mason and Leek, 2007). Additionally, SMEs differ from large enterprises in the way IC components interact with each other (St-Pierre and Audet, 2011). Therefore, how HC, RC and SC interact within the context of SMEs requires specific research.

According to Cohen *et al.* (2014, p. 298) the economic cycle, especially during a recession, could affect SMEs investing in IC components due to resource constraints and higher uncertainty of returns. A firm's strategy affects developing IC, which affects how an SME performs (Cohen *et al.*, 2014, p. 297). Entrepreneurs are inextricably linked to the decision-making process within the enterprise (Henry, 2013, p. 85) and, thus, the deliberate choice of seeking out new opportunities could be problematic. In SMEs, strategic intent could be more focused on maintaining independence and long-term survival rather than gathering new riskier growth opportunities (Douglas, 2013). Indeed, "whereas opportunistic entrepreneurs may be motivated by the need to achieve or to succeed (as measured in economic terms), other entrepreneurs are driven by what could be described as survival-oriented motivations" (Carsrud and Brännback, 2011, p. 14). This different strategic intent could affect developing IC. Independent firms that value long-term survival will measure performance through firm longevity reducing riskier investments for developing their IC. Market-dominant firms could be more preoccupied with growth, pushing investments into IC. Therefore, the link between strategic intent and IC requires specific attention in SMEs.

Fernández-Olmos and Díez-Vial (2013, p. 197) state that while a positive relationship between intangible resources and diversification could be justifiable in any firm, it is particularly relevant when applied to SMEs. These firms can use some elements of IC that are common in small businesses as a personal relationship with clients to support diversification (Bennett and Robson, 2004, p. 471). Additionally, SMEs are usually less bureaucratic compared to larger firms (Huggins and Weir, 2012, p. 96) and the knowledge dilemma, balancing the need to be open with partners to acquire new knowledge vs protecting internal resources, is usually more challenging (Bolisani *et al.*, 2013, p. 193). Additionally, in SMEs fundamental knowledge is dependent on entrepreneur and key employees (Huggins and Weir, 2012, p. 96). Therefore, the link between IC and diversification requires specific attention within the context of SMEs.

Even though SMEs are economically important, especially in terms of IC, strategic intent and diversification, there is a paucity of research on this topic (Dumay, 2014). Indeed, St-Pierre and Audet (2011) also call for research to develop a better understanding of the IC performance relationship within SMEs. Additionally, Cohen *et al.* (2014, p. 310) argue that the IC literature could be expanded by analysing the relationship between IC and executive decision making in SMEs in relation to strategy. Thus, this study answers the research questions presented above with a focus on SMEs.

Research context

SMEs are diverse and in relation to strategy have different owner-manager characteristics that make each business configuration specific (St-Pierre and Audet, 2011). This study focuses on the context of small and small and medium accounting practices with the aim to provide a specific "ground for understanding the levers behind IC drivers" (Andreou and Bontis, 2007, p. 365). Indeed, small and medium accounting practices are both SMEs and an important business advice provider for SMEs (Gooderham *et al.*, 2004). The study focuses on small and medium accounting practices in north-eastern Italy because Northern Italy is the base for two authors, offering proximity and understanding the challenges facing the region. Additionally, north-eastern Italy offers a unique context for this research because small and medium accounting practices in north-eastern Italy have been challenged by increasing complexity due to the decline in the manufacturing sector (industrial production index reached 89.1 in April 2014 starting from a base of 100 in 2010 (Istat, 2014, p. 1)) and the change in requested services from existing manufacturing clients driven by the increasing demand for management consulting. According to the Association of Chartered Certified Accountants (2014, p. 3), professional accountants have to "actively support and mentor entrepreneurs seeking finance". A further challenge is the development of services based on internationalisation. According to the Association of Chartered Certified Accountants (2013, p. 5) "SME advisors themselves need to develop better skills to advise SMEs on international trade".

Cohen *et al.* (2014, p. 298) state that during financial crises SMEs are more likely to adopt conservative strategies to stabilise and retain existing levels of IC. In north-east Italy, the economic context and client needs in small to medium accounting practices is increasing competitive pressure, reducing profitability from traditional mandatory accounting services and pushing firms to develop new non-mandatory (innovative) services.

Additionally, previous empirical evidence reveals that proactive firms are able to diversify their portfolio of accounting services offering customised services and outperforming reactive and less diversified firms (Bagchi-Sen and Kuechler, 2000, p. 117). Interestingly, IC supports the development of mandatory accounting services. To qualify as authorised accountants, Italian chartered accountants must have a specific university degree in accounting, spend a three-year internship period in an accounting practice and pass a series of exams to obtain authorisation to practice. However, this "certified IC" is not sufficient to explain the existence of different firms' performance across the accounting practice sector. When it comes to introducing new services, and especially non-mandatory accounting services in accounting practices' portfolios, a new IC has to be developed. Therefore, the specific context offers an interesting perspective to analyse the development of IC through the temporal lens.

There are a large number of small, usually family-run accounting practices in this region, facing several economic changes. The IC required to diversify is not common among these businesses, especially for introducing non-mandatory accounting services. Additionally, the part of Italy chosen is populated by several bilingual minorities (German speakers, Slovene speakers), which allows the research to reduce the role of cultural bias on data collected from one country (Lepshy and Lepshy, 1998).

Methodology

IC research is now in the so-called third stage (Guthrie *et al.*, 2012), and a growing attention is paid "on the deeper managerial implication of managing IC in all types of

organization" (Dumay and Garanina, 2013). There are two different research issues recognised: one is the call to develop a contingent approach to IC studies that co-locates IC within specific firms' characteristics; the other is the growing call for developing studies on "how IC works" (Dumay and Garanina, 2013).

Within these research issues, the third stage of IC research identifies two different theoretical lenses for problematising IC research being the "ostensive" vs "performative" (Guthrie *et al.*, 2012). According to the ostensive approach "IC has a set of fundamental properties that exist 'deep down' in the complexities of organizational life" (Mouritsen, 2006, p. 822). "Within performative approaches, IC gains its identity by its relations to other entities and […] there is no fundamental formula to understand the role of IC in organization and society" (Mouritsen, 2006, p. 823). While ostensive research is developed through a top-down approach mostly using statistical models, performative researchers prefer bottom-up approaches that investigate how theoretical lenses Dumay and Garanina (2013) stated that "when by examining 'How IC works' rather than building a 'new and improved' top-down ostensive IC causal framework or model, provides a better view of the actual impact of IC in action".

Additionally, performative research has outlined how narratives are of fundamental importance for the understanding of IC practices (Chiucchi, 2013, p. 50). The growing attention to the performative theoretical lens could lead to questioning whether this agenda makes statistical testing impossible? The answer is "No". As Mouritsen (2006, p. 835) recognises, "it just requires statistical approaches to be more imaginative". Indeed, "when the performative bottom-up approach is used to gather insights into the workings of IC then models describing the interaction of IC elements can be developed rather than trying to allocate abstract IC measures in an attempt to fit a predefined framework or model" (Dumay and Garanina, 2013). Additionally, research on IC "is not dependent on a particular methodological preference […] it just calls for more interesting research that questions established conclusions" (Mouritsen, 2006, p. 835). To make this research more interesting, SEM helps describe how IC interacts with strategic intent to foster portfolio diversification.

SEM does not provide a unique predefined model because any initial proposed model can be modified by deleting insignificant paths, finding new paths and testing them again (Ni and Sun, 2009, p. 1048). Thus, SEM allows to develop consideration about competing models and evaluation of alternative relationships (Andersen and Nielsen, 2009, p. 97). Additionally, SEM measures unobservable and abstract constructs and reflects a more holistic and less blatantly causal interpretation of real world phenomena representing social interactions and artefacts (Westland, 2012, p. 20).

SEM is a widely used methodology within IC studies. Daou *et al.* (2014) use SEM in multi-group testing to verify the existence of IC distinctive characteristics that are unique to the Mexican context. Liang *et al.* (2013) compare the same model developed through SEM to different Taiwanese equipment manufacturers to verify whether value-creating activities and IC accumulation are affected by different strategies. Molodchik *et al.* (2014) use SEM to explore a set of indicators based on publicly available data to measure latent and not directly measurable constructs of IC. Bontis and Serenko (2009) use SEM to develop an IC causal model to better understand the various outcomes of antecedent configurations of intangible asset components. Andreou *et al.* (2007) use SEM to develop a theory about the impact on business performance of a list of operational knowledge assets on IC derived from qualitative focus groups. Therefore, SEM is a widely accepted research method to analyse similar research contexts and topics.

Research questions and hypothesis development

The main outcome of this study is to determine whether IC and strategic intent influence each other within the context of small and medium accounting practices. As outlined above the IC's temporal dimension is an important lens for observing IC performance. Therefore, the researchers present three more detailed questions:

RQ1a. Considering the small and medium accounting practice context is there any influence of IC existing at time-*t* on strategic intent?

RQ1b. Considering the small and medium accounting practice is there any influence of IC existing at time on IC at time-*t*+1?

RQ1c. Considering the small and medium accounting practice context is there any influence of strategic intent on IC existing at time-*t*+1?

Another desired output of this study is to verify the connection between IC and portfolio diversification within the context of medium accounting practices. Thus *RQ2* is expanded as follows:

RQ2a. Considering small and medium accounting practices context, is there any influence of IC existing at time-*t*+1 on portfolio diversification at time-*t*+1?

For each research question a list of two hypotheses are developed: H_0 (null hypothesis), that assumes the existence of no influence between IC, strategic intent and diversification and H_A that is the opposite of the H_0. Table I summarises each hypothesis.

Figure 1 depicts research questions and hypothesis.

Survey instrument and data collection

The research uses a lagged analysis with a structured questionnaire. The questionnaires ask the same questions with a time lag of three years (time-*t* and time-*t*+1) and were submitted to 11,267 small and medium accounting practices located in north-eastern Italy through e-mail. The original e-mail was sent three times to increase the response rate resulting in 2,266 responses, but only 1,392 were usable for

Research questions	Research hypothesis
RQ1a. Considering the small and medium accounting practice context is there any influence of IC existing at time-*t* on strategic intent?	H_0 There is no influence of IC existing at time-*t* on SI
	H_A There is a direct influence of IC existing at time-*t* on SI
RQ1b. Considering the small and medium accounting practice is there any influence of IC existing at time on IC at time-*t*+1?	H_0 There is no influence of IC existing at time on IC at time-*t*+1?
	H_A There is a direct influence of IC existing at time on IC at time-*t*+1?
RQ1c. Considering the small and medium accounting practice context is there any influence of strategic intent on IC existing at time-*t*+1?	H_0 There is no influence of SI on IC existing at time-*t*+1
	H_A There is a direct influence of SI on IC existing at time-*t*+1
RQ2a. Considering small and medium accounting practices context, is there any influence of IC existing at time-*t*+1 on portfolio diversification at time-*t*+1?	H_0 There is no influence of IC existing at time-*t* +1 on portfolio diversification at time-*t*+1
	H_A There is a direct influence of IC existing at time-*t*+1 on portfolio diversification at time-*t*+1

Table I. Research questions and hypothesis

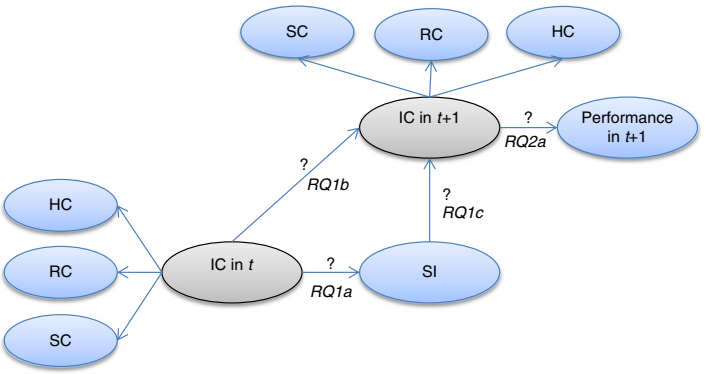

Figure 1.
The research questions

this analysis (11 per cent of the total population) as responses with missing data were deleted. The response rate is comparable to that in similar surveys (Døving and Gooderham, 2008; Mole, 2002). The following sections present items asked in the questionnaire.

Performance and portfolio diversification questions

According to Bagchi-Sen and Kuechler (2000), diversified firms outperform more focused ones. At the same time, product and service responsiveness to clients' needs is a critical factor in supporting firms' performance (Craighead *et al.*, 2009). Following this line of research, firm diversification is a proxy of performance assuming that more proactive firms have superior performance (Bagchi-Sen and Kuechler, 2000). Therefore, the questionnaire measures the number of services provided by each accounting practice.

To analyse the accounting practices' service portfolio, the researchers developed a list of services that Italian small and medium accounting practices to provide. Further, a group of five experienced and qualified chartered accountants tested the validity of the list and then compared it to the official web site of the Italian Association of Chartered Accountants. From this process, 19 services were identified, with the final list closely replicating prior studies in the field (Bagchi-Sen and Kuechler, 2000; Døving and Gooderham, 2008). Respondents indicate whether a service is or is not provided by the firm and its importance in terms of percentage of revenues both at time-*t* and time-*t*+1. Table II provides a complete list of these services.

Additionally, services provided by small and medium accounting practices are split into mandatory and non-mandatory accounting services. Mandatory accounting services are traditional services provided by small and medium accounting practices (Marriott and Marriott, 2000). The IC required for providing these services is common across the sector (Døving and Gooderham, 2008). The Italian legal classification of services as assigned to chartered accountants (according to the Italian law: D.Legs. 28/06/05 n.139) is used to identify services as being mandatory or non-mandatory. The first classification was then submitted to a group of experts for further verification. The final list is similar to the general classification proposed by the International Federation of Accountants (2010). The methodological approach to match and compare information acquired by the analysis of the law, specific reports and expert interviews is in keeping with previous studies on small and medium accounting

Service	SMPs that offer it in t	%	SMPs that offer it in t+1	%
Real estate management	143	10.3	183	13.1
Debt administration/closure of firms	280	20.1	361	25.9
Arbitration	109	7.8	219	15.7
Bankruptcy and crisis management	266	19.1	355	25.5
Taxation/tax planning	856	61.5	931	66.9
Remuneration schemes/salary administration	287	20.6	317	22.8
Financial auditing	837	60.1	921	66.2
Administrative routines	1,198	86.1	1,226	88.1
Valuation of firms' mergers/demergers	728	52.3	847	60.8
Administration of naval accident practice	19	1.4	49	3.5
Inheritance issues/generation transfer	192	13.8	295	21.2
Contracts and litigation	606	43.5	719	51.7
Strategic planning	205	14.7	361	25.9
Marketing/sales	27	1.9	94	6.8
Management/organisation/HRM	240	17.2	384	27.6
IT consultancies	35	2.5	70	5.0
Financial management/budgeting	224	16.1	331	23.8
Internationalisation services	89	6.4	175	12.6
Others	261	18.8	300	21.6

Table II.
Services offered in t and in t+1

practices (Døving and Gooderham, 2008). Table VIII provides a complete list of services recognised as mandatory and non-mandatory.

IC questions

The IC literature does not provide a shared scale for measuring a firm's IC. Thus, according to previous studies (Leitner, 2011; Spanos and Lioukas, 2001), a self-assessment question using a one to five Likert scale is warranted. According to other studies (Subramaniam and Youndt, 2005), IC is measured by formulating statements about typical characteristics of its components: HC, RC, SC. Respondents have to evaluate the competencies of front-line staff, authorised chartered accountants (Associates), non-associate authorised chartered accountants and interns as a proxy of firms' HC. To measure RC respondents evaluate the accounting practices' brand, reputation and ability to establish a close relationship with clients and partners (Sharabati *et al.*, 2010). Respondents assess the importance of databases, manuals and the ability to create a quality approach in work practices as a proxy for SC (Leitner, 2011; Subramaniam and Youndt, 2005). Tables III and IV provide a complete list of the questions related to IC at time-t and t+1.

Strategic intent questions

A self-assessment approach on five-point Likert-scale is used to measure the accounting practices' strategic intent. Because of the recognised definition of strategic intent (growth-oriented ambition), respondents have to evaluate the importance of fostering the firms' growth. According to previous studies (Bagchi-Sen and Kuechler, 2000), growth ambitious should be accompanied by a proactive approach and thus respondents have to evaluate the importance of keeping high levels of innovation, complementarity and customisation of provided services. Table V reports a complete list of the questions related to strategic intent.

Variable	Mean	SD	Factor loading	*t*-value	Cronbach's α
Resources at time-t – intellectual capital framework					
Please, rate the importance of the following resources for increasing firm's performance					
(1 not important – 5 very important)					
Human capital					*0.80*
Competences of front-line staff	3.60	1.02	0.75	17.44	
Competences of interns	2.85	1.20	0.88	24.12	
Competences of associated authorised chartered accountants	3.44	1.22	0.85	23.26	
Competences of not associated authorised chartered accountants	3.12	1.11	0.75	20.80	
Relational capital					*0.78*
Close relationship with clients	3.30	1.10	0.84	13.83	
Close relationship with others (partners, etc.)	3.58	0.97	0.82	26.09	
Brand and reputation	3.60	1.09	0.70	19.90	
Structural capital					*0.72*
Procedures of interaction with clients	3.48	1.04	0.63	18.33	
Harmonisation of procedures among offices	2.63	1.11	0.65	14.77	
Database and other knowledge repositories	2.99	1.04	0.80	16.75	
Resources for managing fees (payments, etc.)	2.79	1.07	0.60	13.91	

Notes: Goodness of fit of the model: $\chi^2(41)510.73$; $p < 0.001$; NNFI = 0.96; CFI = 0.97; RMSEA = 0.075

Table III.
Questionnaire and statistics on IC at time-*t*

Variable	Mean	SD	Factor loading	*t*-value	Cronbach's α
Resources at time-t+1 – intellectual capital framework					
Please, rate the importance of the following resources for increasing firm's performance					
(1 not important – 5 very important)					
Human capital					*0.84*
Competences of front-line staff	3.72	1.00	0.80	15.00	
Competences of interns	3.17	1.18	0.89	28.60	
Competences of associated authorised chartered accountants	3.60	1.15	0.85	26.52	
Competences of not associated authorised chartered accountants	3.40	1.10	0.81	26.12	
Relational capital					*0.82*
Close relationship with clients	3.57	1.07	0.86	10.93	
Close relationship with others (partners, etc.)	3.75	1.00	0.87	28.65	
Brand and reputation	3.74	1.07	0.74	22.80	
Structural capital					*0.78*
Procedures of interaction with clients	3.52	1.05	0.74	14.53	
Harmonisation of procedures among offices	2.95	1.12	0.75	19.72	
Database and other knowledge repositories	3.23	1.04	0.82	22.32	
Resources for managing fees (payments, etc.)	3.04	1.13	0.66	16.51	

Notes: Goodness of fit of the model: $\chi^2(41)547.97$; $p < 0.001$; NNFI = 0.97; CFI = 0.98; RMSEA = 0.071

Table IV.
Questionnaire and statistics on IC at time-*t*+1

Variable	Mean	SD	Factor loading	*t*-value	Cronbach's α
Strategic intent at time-*t*					*0.78*
Please rate the importance of the following items for your strategic intent (1 not important – 5 very important)					
Having high service range	3.68	1.02	0.83	32.79	
Having high service customisation	3.84	0.98	0.73	26.45	
Having high service complementariness	3.60	1.05	0.86	33.57	
Providing innovative services	3.44	1.11	0.82	30.45	
Growing firm dimension	4.03	0.96	0.69	21.96	

Notes: Goodness of fit of the model: $\chi^2(5)44.52$; $p < 0.001$; NNFI = 0.99; CFI = 1.00; RMSEA = 0.055

Table V. Questionnaire and statistics on SI

Measurement process

This study develops a four-step measurement process. First, preliminary measure analysis evaluates the estimation model. Subsequently, IC, strategic intent and portfolio diversification reliability are measured. Thus, exploratory and confirmatory factor analysis is developed and tested using Cronbach's α and factor loading *t*-values.

Second, a second-order reliability test is developed. Because IC is measured including HC, RC and SC the theoretical model includes eight first-order factors (HC, RC, SC all at time-*t* and, HC, RC, SC all at time-*t*+1, strategic intent and diversification) and two second-order factors (IC at time-*t* and IC at time-*t*+1). To test the existence of a second-order factor, four different models are compared measuring reliability and with the chosen model having the highest reliability index.

Third, parameter estimation and model validation tests are measured. Several indices are used to assess the fit of the measurement model (Diamantopoulos and Singuaw, 2000; Medsker *et al.*, 1994). The study focuses on the goodness of fit index and adjusted goodness of fit index (AGFI) , for which values from 0.85 to 0.90 are considered acceptable (Medsker *et al.*, 1994) and non-normed fit index (NFI), for which values should be close to one for a good model fit (Diamantopoulos and Singuaw, 2000). The model also examines the root mean square error of approximation (RMSA) , which should be below 0.08 (Diamantopoulos and Singuaw, 2000). Finally, Critical N statistic is measured, and values over 200 are an expression of an adequate representation of the data (Diamantopoulos and Singuaw, 2000). The parameter estimation analysis focuses on these measures since they are widely used in similar studies (Hsu and Sabherwal, 2012; Sharabati *et al.*, 2010; Shih *et al.*, 2010).

Fourth, the study develops a model cross-validation process. Using the average revenues provided by mandatory (traditional services) and non-mandatory (innovative services) accounting services the sample has two groupings. The first considers innovative firms being those with revenues from non-mandatory accounting services above the average of the sample. The second group considers traditional firms being those with revenues from non-mandatory accounting services below the average of the sample. Both these groups are tested using the same SEM to check general validity.

The measurement process uses the statistical software "R" to develop descriptive statistics, exploratory factor analysis and Cronbach's α tests. The confirmatory factor analysis and SEM analysis uses "LISREL 8.80".

Results

This section presents the results following the four steps of the measurement process. The first sub-section introduces the findings of the preliminary measures describing therefore validity of the constructs used in the analysis. The second sub-section presents the second-order validity test showing how independent but strongly interconnected constructs shape IC. The third sub-section provides results of the parameter estimation and validation results, which test the hypotheses. The fourth sub-section provides results of cross-validation tests.

Preliminary measures

The first step of the measurement process is an analysis of skewness and kurtosis to define the estimation model. Coefficients of skewness for the observed variables range from −0.60 to 1.06, and the coefficients of kurtosis range from −0.7 to 0.0 with a slight non-normality. According to Vieira (2011) sample size reduces violation of the normality assumption and if the distribution is not widely non-normal maximum likelihood is reliable in most situations. Thus, results confirm the validity of the maximum likelihood approach since skewness indices should be less than three and kurtosis less than eight to reach a critical point (Kline, 2005). Additionally Diamantopoulos and Singuaw (2000, p. 56) state that "although maximum likelihood is not the most appropriate estimation method under all circumstances, the general recommendation is that authors routinely report results from ML estimation […] results of alternative procedures might be reported in summary form if contradict ML results". To follow this suggestion, the model is also tested using a corrected normal theory method (Kline, 2005, p. 195) without reaching any contradictory results. Therefore, this study uses the maximum likelihood as estimation method.

Subsequently, a reliability and validity test must be developed. Results obtained from the questionnaire measure the number of services provided by each firm and all respondents. Administrative routines are the most provided services (86 per cent of the sample in time-t and 88 per cent in time-t+1) while the management of naval accident practice is the least provided service as it never reaches 4 per cent both in time-t and time-t+1. Table II depicts basic information on the service portfolio of respondents at time-t and time-t+1.

Focusing on IC, Cronbach's α indicates for all IC components (HC, SC, RC) values above 0.70 both in time-t and time-t+1, suggesting the internal consistency of the measured items. Additionally, all factor loadings are statistically significant at the 0.001 level with a minimum t-value of 13.91. Goodness of fit index obtained by a confirmatory factor analysis indicates a good fit. Tables III and IV provide details about questions, measures and results of the analysis.

Strategic intent questions show Cronbach's α above 0.78 and factor loadings significant at the 0.001 with a minimum t-value of 21.96. Additionally, goodness of fit index obtained by a confirmatory factor analysis indicates a good fit of the model. Table V provides details about questions, measures and results of the analysis.

Second-order reliability test

The second step of the measurement process is the existence of a second-order factor used to identify IC as a latent variable of HC, SC and RC. The analysis develops four different models. Model 1 uses a unidimensional first-order factor to explain the variance among all items. Model 2 hypothesises three correlated first-order factors: HC, RC, SC. Comparing Models 1-2, the latter shows better goodness of fit measures.

This result supports the idea of the multidimensionality of IC. Thus, all three dimensions of IC (HC, RC, SC) are assumed to capture unique theoretical content and support discriminant validity of IC (Hsu and Sabherwal, 2012).

To verify the existence of a second-order factor, strategic intent is used as an external criterion variable as suggested by Hsu and Sabherwal (2012, p. 520). Thus, in Model 3 HC, RC and SC have a direct effect on strategic intent while in Model 4 a second-order variable (IC) is created to represent the first-order factors (HC, RC, SC). The comparison between Models 3 and 4 shows superior fit measures for the latter. The same results measure IC at time-t+1. Tables VI and VII give goodness of fit measures for the models.

Parameter estimation and validation results

The third step of the measurement process is the parameter estimation and validation analysis. Findings show that IC at time-t has a direct and positive effect on strategic intent with a standardised coefficient of 0.59, t-value of 16.77 and p-value less than 0.001, reaching statistical significance. At the same time, existing IC at time-t has a positive and statistically significant effect on IC at time-t+1 with a standardised coefficient of 0.77, t-value of 7.91 and p-value less than 0.01. Strategic intent positively influences IC at time-t+1, with a standardised coefficient of 0.24 and t-value of 5.63. Thus, with a p-value of less than 0.001, there is a positive and statistically significant relationship between strategic intent and IC at time-t+1. Additionally, IC at time-t+1 positively influences performance at time-t+1, with a standardised coefficient of 0.62, the t-value of 20.52 and a p-value less than 0.01.

However, the statistical model shows the existence of several mediation effects. According to Iacobucci (2008, p. 1) a "mediation structure posits a particular conceptualization of the mechanism through which an independent variable might

Model	Description	Goodness of fit indices
Model 1	Unidimensional first-order factor	$\chi^2 = 1{,}206.85$, df = 44, χ^2/df = 27.42, CFI = 0.92, NNFI = 0.90, RMSEA = 0.12
Model 2	Three correlated first-order factors: HC, RC, SC	$\chi^2 = 672.29$, df = 41, χ^2/df = 16.39, CFI = 0.96, NNFI = 0.95, RMSEA = 0.087
Model 3	HC, RC and SC have a direct effect on SI	$\chi^2 = 977.77$, df = 98, χ^2/df = 9.98, CFI = 0.97, NNFI = 0.96, RMSEA = 0.069
Model 4	A second-order variable (IC) was created for representing the first-order factors (HC, RC, SC)	$\chi^2 = 996.30$, df = 100, χ^2/df = 9.96, CFI = 0.97, NNFI = 0.96, RMSEA = 0.069

Table VI. Models for testing IC second-order factor at time-t

Model	Description	Goodness of fit indices
Model 1	Unidimensional first-order factor	$\chi^2 = 1{,}542.92$, df = 44, χ^2/df = 35.06, CFI = 0.93, NNFI = 0.92, RMSEA = 0.13
Model 2	Three correlated first-order factors: HC, RC, SC	$\chi^2 = 793.28$, df = 41, χ^2/df = 19.34, CFI = 0.97, NNFI = 0.96, RMSEA = 0.088
Model 3	HC, RC and SC have a direct effect on SI	$\chi^2 = 1{,}107.20$, df = 98, χ^2/df = 11.29, CFI = 0.98, NNFI = 0.97, RMSEA = 0.070
Model 4	A second-order variable (IC) was created for representing the first-order factors (HC, RC, SC)	$\chi^2 = 1{,}118.76$, df = 100, χ^2/df = 11.18, CFI = 0.98, NNFI = 0.97, RMSEA = 0.070

Table VII. Models for testing IC second-order factor at time-t+1

affect a dependent variable – not directly, but rather through an intervening process, captured by the mediator variable". Mediation effects are also called indirect effects. Findings show an indirect effect of IC at time-*t* that through the mediation of strategic intent affects IC at time-*t*+1. Standardised coefficient of the indirect effect is 0.14 and a *t*-value is 6.77. Additionally IC at time-*t*+1 mediates the effect of strategic intent on performance with a standardised coefficient of 0.15 and a *t*-value of 6.94. Therefore, the total impact of IC at time-*t* on IC at time-*t*+1 is 0.91 that results as 0.77(direct effect) +0.14 (indirect effect). These results show the very low impact of strategic intent on IC at time-*t*+1.

To test the model validity goodness of fit measures are analysed. The higher the model fit, the higher the usability of the model. Among the absolute fit indicators, the goodness of fit index value of the model is 0.89, RMSA is 0.055 and Critical N is 318, all within an acceptable range. Analysing incremental fit indicators, the AGFI is 0.87, NFI value is 0.98 and incremental fit index is 0.98. All the incremental measures of fit reach the standards suggested by the literature and above described. Figure 2 shows main results of the SEM analysis.

Model cross-validation

The fourth step of the measurement process is the model cross-validation. Two groups split the sample considering the average of revenues provided by mandatory and non-mandatory accounting services as described in the methodological section. The first group called "traditional", has 860 firms and revenues (as a percentage of the total revenues) provided by non-mandatory accounting services, lower than the average of the sample. The second group called "innovative" has 532 firms with revenues (as a percentage of the total revenues) derived from non-mandatory accounting services higher than the average of the sample. The SEM is tested using both groups. Results are similar within the two groups. Table VIII depicts main findings.

Analysis and discussion

Table IX summarises research questions, hypotheses and findings.

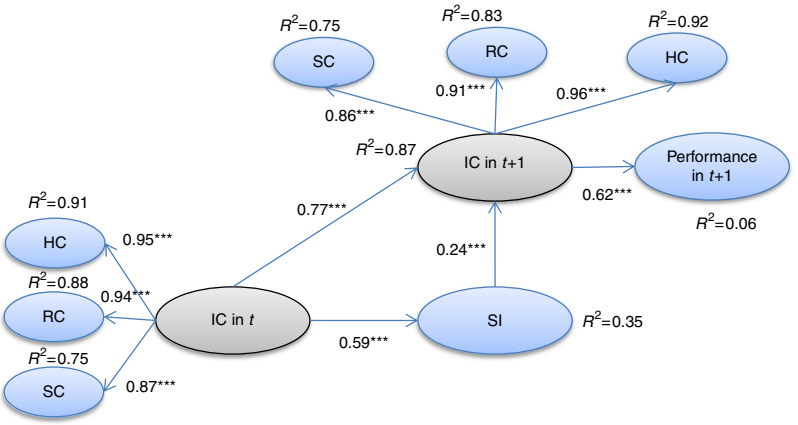

Figure 2.
Findings

Notes: Goodness-of-fit of the model: χ^2 2(330)2,138; $p<0.001$; NNFI=0.98; CFI=0.98; RMSEA=0.055; CN=318. *$p<0.10$; **$p<0.05$; ***$p<0.01$

Results of the measurement process contribute to building on the existing IC literature. The first general research question investigates the IC-strategic intent reciprocal influence over time developing three-specific research questions. Findings show that existing IC at time-*t* positively affects strategic intent with a coefficient of 0.59 and *p*-value less than 0.001. These results provide support for rejecting the H_0 in the case of *RQ1a*. Therefore, strategic intent cannot be considered an "unfettered ambition" and existing resources are important constraints that limit a firm's ambition (Hamel and Prahalad, 1989).

Additionally, the existence of a second-order latent variable (IC) establishes that HC, RC and SC are independent components of IC, but it recognises that they are strongly connected influencing strategic intent. Interrelation between components of IC is a well-analysed topic but empirical results are contradictory (Cortini and Benevene, 2010; Hsu and Sabherwal, 2012; Leitner, 2011; Namvar *et al.*, 2010; St-Pierre and Audet, 2011). The findings of this study show that all IC components could contribute to a knowledge transformation creating a cycle where HC, SC and RC influence each other to support a firm's ambition. These results from the Italian context offer support for research and practice in other European Countries. For example, according to the German Wissensbilanz project "the interdependency between human, structural and relational capital, knowledge processes as well as the coaction with business processes lead to corporate success" (www.akwissensbilanz.org/methode/strukturmodell-en.htm).

Model	Traditional firms Coefficient	*t*-value	*p*-value	Innovative firms Coefficient	*t*-value	*p*-value
IC in *t*→SI in *t*	0.60	10.11	***	0.58	13.35	***
SI in *t*→IC in *t*+1	0.25	2.70	***	0.23	3.27	***
IC in *t*→IC in *t*+1	0.77	3.30	***	0.90	3.97	***
IC in *t*+1→performance	0.31	7.49	***	0.29	7.65	***
Goodness of fit indices	$\chi^2 = 1{,}176.06$, df = 330, CN = 220, CFI = 0.98, NNFI = 0.98, RMSEA = 0.060			$\chi^2 = 1{,}479.21$, df = 330, CN = 292, CFI = 0.98, NNFI = 0.98, RMSEA = 0.054		

Notes: *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$

Table VIII. Replicating the model for traditional and innovative firms

Research questions	Results	*p*-value	Hypothesis
RQ1a. Considering the small and medium accounting practice context is there any influence of IC existing at time-*t* on strategic intent?	IC in *t*→SI	< 0.01	H_0: rejected
RQ1b. Considering the small and medium accounting practice is there any influence of IC existing at time on IC at time-*t*+1?	SI→IC in *t*+1	< 0.01	H_0: rejected
RQ1c. Considering the small and medium accounting practice context is there any influence of strategic intent on IC existing at time-*t*+1?	IC in *t*→IC in *t*+1	< 0.01	H_0: rejected
RQ2a. Considering small and medium accounting practices context, is there any influence of IC existing at time-*t*+1 on portfolio diversification at time-*t*+1?	IC in *t*+1→ diversification	< 0.01	H_0: rejected

Table IX. Research hypothesis and results

Analysing *RQ1b*, the findings show that IC at time-*t* influences IC at time-*t*+1 with a coefficient of 0.77 and a *p*-value less than 0.001. These results provide support for rejecting the H_0 in the case of *RQ1b*. IC elements are not stable over time and more precisely IC at time-*t* positively affects IC at time-*t*+1. Therefore, even though IC may change the intensity, direction and nature over time (Montemari and Nielsen, 2013, p. 524), it shows a path-dependent evolution. In SMEs, IC is strongly dependent on the entrepreneur and key employees (Huggins and Weir, 2012, p. 96), that provide the grounds for improving existing IC. The strong level of path dependence exposes the importance of "analyzing the changes in organization design and top management functioning that are required if knowledge strategies are to be successfully implemented" (SubbaNarasimha, 2001, p. 223). As such, IC statements can be used to monitor continuously changes over time to measure the success of specific actions and to control risks and critical resources (InCas, 2006, p. 8).

Focusing on *RQ1c*, the findings show a positive influence of strategic intent on existing IC at time-*t*+1 with a coefficient of 0.24 and *p*-value less than 0.001. These results provide support for rejecting the H_0 in the case of *RQ1c*. Strategic intent creates an ambition that pushes firms to fill the gap between existing and required resources (Hamel and Prahalad, 1989). Interestingly, even though findings show a positive and statistical significant connection between strategic intent and IC at time-*t*+1, the standardised coefficient is relatively low, especially considering the mediation role of strategic intent described above. Therefore, the constraint effect of existing IC at time-*t* on strategic intent is much higher than the power of pushing the organisation to increase the needed IC at time-*t*+1.

Additionally, it is quite interesting to compare results obtained for "traditional" and "innovative" firms. The knowledge required to develop traditional mandatory accounting services is quite common among these accounting firms and thus it could be reasonable to expect a higher influence of strategic intent for IC because there are few barriers to IC. Interestingly, the perceived effect of strategic intent on IC appears to be the same between firms focused on more traditional services and those focused on more innovative services. Several reasons may explain these results. According to Cui *et al.* (2013), strategic intent is strongly connected with managers' motivation to take high risks in view of significant potential long-term benefit. Small and medium accounting practices operate in a very regulated market and mandatory accounting services provide more than 77 per cent of the average revenue of the firms in the sample. Therefore, more competitive firms have a significant part of their revenue coming from mandatory accounting services. Competitiveness could be considered limited since a majority of their revenue is provided by mandatory services and thus a contingency approach could contribute to explaining these results.

Focusing on *RQ2a*, findings show a positive influence of IC at time-*t*+1 and portfolio diversification with a coefficient of 0.62 and a *p*-value less than 0.001. These results provide support for rejecting the H_0 in the case of *RQ2a*. Dumay and Garanina (2013) highlighted the need for a deeper analysis of the impact of IC on performance that could be extended to non-economic measures. This study measures IC-based performance in terms of the range of services offered and, thus, these findings build upon existing literature expanding the understanding of the role of IC on firms' performance.

Conclusion

The results of this study find that strategic intent fosters IC development, supporting diversification and confirming the English proverb that "where there is a will there

is a way". What is interesting is the intensity and direction of this reciprocal influence in a specific research context of small and medium accounting practices, which contributes to building upon existing literature and offers interesting insights for policy makers and managers.

Indeed, this research focuses on SMEs since they are an under-researched context when compared to larger organisations, especially considering their economic importance. Small and medium accounting practices are analysed as a specific kind of SME because of their role as important business advisors for SMEs and because of the important role of IC due to the nature of their business.

Within the specific research context, "ostensive" and "performative" research methods are analysed to identify the research method, with this paper presenting SEM as a useful method for analysing data on "how IC works". Widely used in previous IC research, structured equation modelling allows for developing competing models and alternative relationships and, therefore, cannot be considered a predefined framework or model that abstractly measures IC or tries to fit IC to a specific framework.

Results of the SEM show how IC influences strategic intent indicating that the firm's ambition cannot be unfettered, but must be strongly connected with existing resources. Interestingly, results show that strategic intent influences IC, but the intensity of the link is low. A contingent approach is proposed to explain this result. Since mandatory accounting services are 77 per cent of the average revenue in the sample, firms could have reduced motivation to search for new business opportunities because the few mandatory services provide the majority of their turnover. Additionally, results show that HC, RC and SC are separate constructs that interact and shape the IC required to develop a diversified portfolio.

These findings contribute to building upon existing literature depicting the interaction between IC and strategic intent within SMEs. More specifically, the results offer interesting insights within the specific research context of small and medium accounting practices. The reduced competitive pressure determined by the mandatory nature of some services provided by small and medium accounting practices could explain the limited effect that strategic intent has in the evolution of IC and therefore in supporting diversification and performance.

Thus, the findings of this study have managerial implications. According to the empirical results, firms need to create a virtuous circle, working both on the level of IC and strategic intent. The existence of a relatively protected market could reduce the effectiveness of the accounting practices' strategic intent and firms could prefer autonomy rather than pursuing business opportunities. This conservative approach could become a serious issue for accounting practices, stopping IC development and thus compromising future opportunities for the firm. As recognised by Edvinsson *et al.* (2005, p. 140) "it is a leadership liability not to address this potential or IC in waiting". One possible support could be the IC Reporting for SMEs (RICCARDIS report) to make the management of the "SMEs' intangibles a conscious and deliberate exercise, so that objectives and actions are developed and implemented with a view to growth and effectiveness" (European Commission, 2006, p. 20). In fact, the most recent advances in IC reporting in Japan (OSMERI, 2008) and Hong Kong (Intellectual Property Department, 2009) focus on SMEs rather than larger or publicly listed companies.

Similarly, from a competitive advantage perspective this questions IC's espoused role in developing competitive advantage because it appears that SMEs are, at times, content with their existing business and are not motivated to expand beyond their comfort zones. Therefore, in these cases, "where there is no will there is no way" and

a sort of service arbitrage could exist. This is where an ambitious SME could enter a specific market with innovative service offerings and catch a less ambitious firm unawares, first establishing innovative service offerings and then taking away the lucrative mandatory services from its competitors. Similarly, there may be an opportunity for smaller firms to leverage and combine their IC and use "collaborative advantage" as a strategy (Amidon, 2002) whereby SMEs work together to develop innovative service offerings to protect themselves from potentially predatory competition.

Managers of SMEs that operate in highly regulated markets must avoid a short-term perspective – myopia – that focuses on mandatory product/services rather than on long-term profitability. According to Levinthal and March (1993, p. 110), temporal myopia "tends to sacrifice long run to a short run". Therefore, managerial myopia can reflect a narrow view of temporal choices focusing decision makers on the near term, encouraging short-term solutions (Ridge *et al.*, 2014, p. 604) that focus firms on producing mandatory product/services with reduced competitiveness rather than invest in future opportunities. Interestingly, these firms are strongly exposed to market regulation risks. Additionally, IC has a strong path dependency and as Miller (2002, p. 689) states, the risk is that by the time knowledge is needed, it is too late to gain it. Therefore, focusing on mandatory services could affect firm ability to rebuild competences, create managerial myopia and affect long-term competitiveness.

Considering the important role of small and medium accounting practices in providing business advisory service to SMEs and that two out of three jobs in the European Union come from SMEs, there is a call for further development of these results. Helping SMEs of all types survive in an increasingly competitive environment by leveraging IC and knowledge can help build stronger SMEs and a stronger economy. The rapid development of the EU as a knowledge economy should reflect the role of SMAP for SMEs' growth. Using the words of Edvinsson (2013, p. 168) the authors argue that "we might learn from another type of ecosystem that works less for administrative functions and more for knowledge innovation". Additionally, a national analysis of IC reveals that for several southern European countries (Italy included) "their prosperity did not sustain them into the modern age and their national intellectual capital development has been surpassed by many less resourceful countries" (Lin and Edvinsson, 2011, p. 112). The findings of this study contribute to this literature, explaining possible reasons of low-IC development within the Italian context.

Additionally, there are practical implications for teaching small business management in business schools. Indeed, strategic intent is connected with ambition, self-confidence and stresses management attitude. However, most business schools teach strategy from the big end of town and focus little on SME management. Therefore, business schools should re-consider their offer, evaluating what they are doing for shaping the strategic intent of students, many of whom are likely to work in or own an SME at some stage in their career, especially if they become a chartered accountant. These results build on the "corporate longitude" perspective proposed by Edvinsson (2002), asking for the a new kind of leadership (Edvinsson *et al.*, 2005, p. 113) that, according to this study, results should be developed, starting within business schools.

Considering the role of small and medium accounting practices as business advisors of SMEs, these findings offer interesting insights to policy makers on how to deal with the effect of regulation and to managers on how to manage IC development. Additionally, results could be extended to other professional SMEs operating in relatively regulated markets like law services and construction.

As with any research, this study has some limitations. First, this study is limited to an analysis of the Italian small and medium accounting practices context. Second, insights to single case studies could help to identify specific praxis used to reinforce the circle IC-strategic intent-IC. All these limitations could stimulate the development of further studies that might add to the validity of these findings.

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