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Abstract

Purpose – Based on the literature devoted to family firms and the intellectual capital-based view of the firm, the purpose of this paper is not only to identify the most important human capital intangibles owned by family firms but also to show a number of indicators that can help measure them.

Design/methodology/approach – A qualitative case-study-based research approach was adopted taking as reference: 25 family firms belonging to different sectors; previous works existing in the literature; and the intellectus model.

Findings – The present study identifies ten intangibles associated with the human capital of family firms and shows 60 indicators that can be used to measure them. It additionally provides empirical evidence and gives examples of these intangibles through the analysis of 25 international family firms.

Research limitations/implications – The difficulty in collecting all the human capital intangibles of family firms; the problems associated with the creation of accurate indicators; and those specific to the research methodology adopted.

Practical implications – Identifying the human capital intangibles of family firms and their indicators can help managers become aware of their importance, and this will consequently help them improve their management. This could be an interesting starting point to value these intangibles in the balance sheet as well as to draw comparisons between family and non-family organisations.

Originality/value – The framework provided by family firms sheds light on several intangibles specific to these firms – precisely for their condition as "family" firms. Those intangibles – human capital intangibles being especially highlighted in this study – provide the basis for the achievement of competitive advantages.

Keywords Human capital, Family firms, Measurement, Intellectual capital

Paper type Case study

1. Introduction

Firms can only compete effectively if they learn new skills which allow them to find, manage, share and use information as well as knowledge (Abell and Oxbrow, 1999). Therefore, competitive advantage increasingly relies on strategic assets, such as knowledge, and on a set of dynamic capabilities (Wang and Ahmed, 2007; Helfat *et al.*, 2007; Tidd, 2006) which mainly lead to innovations. Knowledge-based intangibles are now extremely relevant factors in the creation of value for a firm (Lev and Daum, 2004) and strategy-oriented intellectual capital management enables companies to understand the value creation process (Kim and Kumar, 2009); hence the essential significance that intellectual capital has acquired within business organisations. Nevertheless, as pointed out by Bontis (1998), the real problem is how to value knowledge, for which purpose developing a set of indicators could be a good proposal.

Family firms stand out as the most important wealth-creation agents – together with intangibles. Their activities cause a considerable impact on society, and these firms

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also contribute to create value chains for products and services which represent the largest part of the market demand. The human capital intangibles associated with family firms are linked to the founder-entrepreneur's personality, the values shared by family members or the knowledge acquired from ancestors, amongst other things. Due to the relevance of such intangibles, human capital can be said to have become an important area insofar as it is closely related to the success and survival of a family firm (Astrachan and Kolenko, 1994; Sirmon and Hitt, 2003).

Although several theoretical and empirical works in the literature have already referred to intellectual capital, few of them actually link intellectual capital to family firms. This can be because research on family firms has often been constrained by problems such as the lack of secondary data sources or the variety of theoretical approaches adopted by researchers (Ibrahim *et al.*, 2004). Furthermore, most of the literature on intellectual capital focuses on describing, classifying and measuring intangibles (Brooking, 1996; Edvinsson and Malone, 1997; Sveiby, 1997; I.U. Euroforum Escorial, 1998; Viedma, 2000; CIC, 2003) and on stressing the importance of intellectual capital reports (Sudarsanam *et al.*, 2006; Pike *et al.*, 2005), as well as on highlighting the importance of human capital intangibles and human capital indicators (Nerdrum and Erikson, 2001; Sáenz, 2005; Catasús and Gröjer, 2006; Benevene and Cortini, 2010; Díez *et al.*, 2010; Massingham *et al.*, 2011) without making any specific references to family firms.

Seeking to fill this gap and based on the conviction that individuals are essential for firms, the present paper written from the perspective of family firms has a twofold aim: to identify the most important human capital intangibles owned by family firms from empirical evidence; and to design several indicators that can help measure them.

The authors' essential motivation stems from the fact that individuals represent the most important input for knowledge-related work – which revolves around people's skills and competences rather than around the execution of programmed tasks and work routines. According to the human capital theory, individuals own skills, experience and knowledge which provide firms with economic value. Therefore, being informed about the human capital intangibles of family firms – as well as about the indicators which can be used to measure such intangibles – will surely help improve the management of those intangibles, thus making the most of intellectual capital.

While most firms acknowledge the importance of their human resource assets, few of them have really tried to show it in their balance sheet. Moreover, most companies do not identify core intellectual capital indicators in some areas that directly influence business value (Itter and Larcker, 2003). This is why the human intangibles associated with family firms identified in this study together with the indicators created to measure them can become an interesting starting point to value human capital assets in the balance sheet as well as to draw comparisons of these human intangibles between family and non-family organisations.

The paper is structured in five sections. The introductory section precedes a review of the literature devoted to the concepts of family firm and intellectual capital, after which the third section shows the methodology used in this study. The fourth section, which is focused on identifying and describing the main human capital intangibles of family firms along with the indicators that can be used to measure them, additionally shows empirical evidence supplied by international family firms. The paper finishes with the conclusions drawn from it, highlighting its contributions and limitations, along with the future lines of research that it can give rise to.

2. Literature review: family firms and intellectual capital

Since the present paper focuses on a specific type of firm, it becomes essential to clarify what the expression "family firm" actually means. Despite the absence of a unanimously accepted criterion which can be applied to define this type of business organisation (Langsberg *et al.*, 1988), Tagiuri and Davis (1996) claim that it is a complex system resulting from the interaction of three subsystems: firm; family; and ownership (what has come to be known as "the three-circle model"). The criteria used to identify family firms include: the concepts of family, ownership and control (Gallo and Sveen, 1991; Donckels and Fröhlich, 1991); family management (Daily and Dollinger, 1993); family employment (Astrachan and Kolenko, 1994), the involvement of several generations (Shanker and Astrachan, 1996); and the intention to transfer the firm to the next generations (Ward, 1987; Churchill and Hatten, 1997). In fact, among the most characteristic features of family firms stands out their vocation for continuity; that is, the desire of founders and their descendants to keep the ownership and management of their firm permanently in the family's hands.

In accordance with the resource-based view of the firm, endogenous factors represent a more solid basis for firms to maintain their competitive advantages due to the dynamism inherent to the business environment (Wernerfelt, 1984; Barney, 1991; Grant, 1991; Amit and Schoemaker, 1993; Peteraf, 1993). Resources and capabilities often mean substantial differences between family firms and non-family firms in terms of competitiveness. Habbershon and Williams (1999) explain how family firms have been described as unusually complex, dynamic and rich in intangible resources; to which they add that the advantages of family firms usually appear as something specifically linked to a particular firm owned by a particular family. The convergence between family-system and firm-system thus generates some hard-to-imitate capabilities – the so-called "familiness"– which make the family firm especially apt to survive and grow (Habbershon and Williams, 1999; Chrisman *et al.*, 2003).

Habbershon and Williams (2000) additionally point out that family control creates the family-related conditions which generate idiosyncratic resources at the firm level – and these idiosyncratic resources of an intangible and tacit nature are inherent to the firm because they have been generated throughout its years of operation. These authors also highlight that, precisely for their "family" condition, family firms are a source of intangible assets which can serve as the basis for their achievement of competitive advantages.

In this context, the intellectual capital-based view of the firm exclusively focuses on the analysis of intangible resources and capabilities, paying special attention to the stocks and knowledge flows incorporated into the firm (Reed *et al.*, 2006).

Intellectual capital can be defined as the sum of the knowledge as such and the specific knowledge capabilities which the firm can use to obtain competitive advantages (Stewart, 1997; Youndt *et al.*, 2004). Intellectual capital provides a quantitative perspective and is more closely connected with the measurement and identification of the existing intangible assets developed by the firm. A number of intellectual capital classification and measurement models have appeared over time (Brooking, 1996; Edvinsson and Malone, 1997; Sveiby, 1997; I.U. Euroforum Escorial, 1998; Viedma, 2000; CIC, 2003; CIC, 2012) and it has now become widely accepted that intellectual capital groups intangibles together into three main blocks, namely: human capital; structural capital; and relational capital.

Human capital comprises not only the knowledge, skills and capabilities that individuals own and use but also their capacity to generate all those resources. Human capital is made up of everything that people and groups know, complemented by their capacity to learn and share this knowledge with others for the benefit of the organisation (CIC, 2012).

Human capital has traditionally appeared as an important research area in the literature about entrepreneurship and family businesses, according to which an entrepreneur's human capital has to do with firm entry and performance (Bates, 1990; Bosma *et al.*, 2004; Shane, 2008).

Human capital is also of paramount importance in the origin of a firm because, as Kaye (1999) explains, the founders who set it up with little or no financial capital were using their human resources to create wealth. In other words, the family often gives the firm a steady supply of trustworthy human resources during the early years of a family business venture (Dyer, 2006). And, most importantly, although relatively efficient capital markets and institutions exist which can more easily provide entrepreneurs with much-needed resources to start a business, intellectual capital and human capital may constitute the scarce resources that distinguish winners from losers (Dyer and Mortensen, 2005).

3. Methodology

With a view to achieve the aims sought by this paper, the present section focuses on identifying a set of human capital intangibles owned by family firms and on designing a pool of indicators that can be used to measure them.

A qualitative case-study-based research approach was adopted because the characteristics of case studies made it possible to come closer to the study object. Following this approach, the inductive method becomes especially relevant in the absence of an initial hypothesis, as it permits to create the basis for a future theory; hence our decision to implement a case study – a fundamental mechanism, not for testing theories but for theory-building (Eisenhardt, 1989).

This is actually an exploratory case study meant to show examples of human capital intangibles. The difficulty in obtaining information about those intangibles led the authors to use secondary data which could help improve their understanding of the problem. Secondary data represent information used in research that has already been collected for another purpose, rather than directly by the research itself – these are internal or external data and can come from paper-based sources or electronic ones (Schutt, 2006).

The choice of a multiple case study – as opposed to a single case study – sought to avoid lack of representativeness because evidence has shown that the multiple case approach is more convincing and, on the whole, more robust than the single case method.

A selection of different cases was made in order to obtain a diverse sample that could provide a broad range of possibilities for comparison – as this enabled a richer theory development (Strauss and Corbin, 1990). The starting point for case selection was a non-random sample from which those cases which offered good learning opportunities were drawn.

The information provided by the family firm ranking carried out by the online journal *Family Business* (www.familybusinessmagazine.com/) served as the basis to prepare a list of family firms belonging to different activity sectors. After analysing the contents of secondary data found in web sites, books and published papers, along with annual and corporate management reports, a total of 25 firms became a significant reference to show examples of the human capital intangibles owned by family firms. Information about the firms under analysis can be found in Table I. Based on these examples, as well as on previous works existing in the literature about human resource management and family firms and on the intellectus model, a set of indicators were developed to measure the aforesaid human capital (CIC, 2012).

Table I. Family firms analysed

Firm	Founder	Foundation year	Industry	Country
Anheuser-Busch Cos. Inc.	EberhardAnheuser	1860	Food	USA
Associated British Foods plc	Willard Garfield Weston	1935	Food	UK
Bertelsmann SE&Co. KGaA	Carl Bertelsmann	1835	Media	Germany
BMW Group	Franz Josef Popp	1916	Automobile	Germany
Bouygues SA	Francis Bouygues	1952	Real Estate, Construction, Television, Electronic Communication	France
Robert Bosch GmbH	Robert Bosch	1886	Electronics	Germany
C&A	Clemens and August Brenninkmeijer	1841	Textile	Holland
Cargill Inc.	William Wallace Cargill	1865	Food, agricultural, risk management, financial, and industrial products and services	USA
Carrefour Group	Fournier and Defforey families	1959	Distribution	France
Estée Lauder Inc.	Estée Lauder	1946	Cosmetics	USA
Heineken Holding N.V.	Gerard Adriaan Heineken	1864	Food and Beverage	Holland
Henkel AG & Co.	Fritz Henkel	1876	Chemical and industrial products	Germany
Hyundai Motor Company	Chung Ju-Yung	1967	Automobile	South Korea
Ikea Group	Ingvar Kamprad	1943	Home furnishing	Sweden
JM Family Enterprises Inc.	Jim Moran	1968	Automotive distribution and sales, Finance and Insurance	USA
LG Electronics	In-Hwoi Koo	1958	Electronics	South Korea
L'Oréal Group	EugèneSchueller	1909	Cosmetics	France
Marriott International Inc.	John Willard Marriott	1927	Hospitality	USA
Michelin Group	Édouard& André Michelin	1889	Automobile	France
Nestlé S.A	Henri Nestlé	1867	Food	Switzerland
Samsung	Lee Byung-chul	1938	Electronics	South Korea
S.C. Johnson & Sons Inc.	Samuel C. Johnson	1886	Chemical	USA
Solvay SA	Ernest Solvay	1863	Chemical, Plastics and Pharmaceutical	Belgium
Tous	Salvador Tous and Rosa Oriol	1965	Jewellery	Spain
WalMart Stores, Inc.	Sam M. Walton	1962	Distribution	USA

Source: Self-elaboration based on data obtained from web sites

4. Identification and measurement of human capital intangibles in family firms

It has already been explained in the second section of this paper that the concept of human capital is very wide and consists of several intangibles which range from the educational level of individuals to their skills and even their ability to learn. Some of these intangibles of a more explicit nature have previously been measured in the literature about human capital – and it is common to find indicators related to the educational level or experience of human resources, measured according to the number of academic qualification or the years spent working for the firm, respectively (Skaggs and Youndt, 2004; Hatch and Dyer, 2004; Hitt *et al.*, 2001; Gimeno *et al.*, 1997). However, our purpose in this paper is more ambitious, since an attempt has been made to identify those intangibles of a more tacit nature which characterise the human capital of family firms; hence the novelty of this work, which also represents its greatest difficulty.

The examples provided by the international family firms analysed as well as the references found in the literature permitted to identify the human capital intangibles described below:

- Several studies on leadership highlight that leaders can influence motivation, behaviours and followers' attitudes (Shih *et al.*, 2012; Judge and Piccolo, 2004; Podsakoff *et al.*, 1990). Leaders provide vision, motivation, systems and structures at every organisational level which facilitate the conversion of knowledge into competitive advantages (Bryant, 2003). Effective leaders may ensure that the employees' values are aligned with those of an organisation, offer constructive feedback, and make it easier to retain the key people (Bontis and Serenko, 2009).

The founder of a family firm will most probably exert a considerable influence (leadership) on the definition of business goals and objectives, especially during the firm's embryonic stage (Ward, 1987). Family firms typically show the presence of a leader who can contribute to business change through the generation of an innovative capacity within the firm (Hamzah and Minai, 2014). Such leaders can not only surround themselves with a team formed by able individuals – from both inside and outside the family – but also combine them and coordinate them properly around a structure, a strategy and a number of clearly established goals, involving them in the success of the family business and granting them a decision power suited to their skills and knowledge.

Family firm leaders are close to the concept of transformational leadership – a kind of leadership behaviour which transforms members' mental models, attitudes and behaviours (Shih *et al.*, 2012; Tsai *et al.*, 2009; Bass, 1985).

In the light of practical experience, leadership is an intangible that family firms try to boost in all their executives:

SC Johnson: In relation to Herbert Fisk Johnson Sr., member of the second generation who runs the firm, it is highlighted that "the willingness to connect with people –to make them feel like part of a larger family– made Herbert a respected leader. Herbert believed that all employees should participate in the success of our business" (SC Johnson, 2013).

Cargill: "We've identified key capabilities and qualities, called the heart of leadership, that we seek, develop and expect from our people. These qualities are essential to build trust, enhance employee engagement and contribute to sustainable results:

- Integrity: It's important for leaders to be honest, trustworthy and able to admit mistakes.

- Conviction: With leadership also comes a strong vision that inspires others to rally around those leaders and take action.
- Courage: Our leaders are risk-takers. They face adversity with courage, challenge the status quo, and champion new viewpoints" (Cargill, 2013).

Bertelsmann: "Executive Education: Bertelsmann University. As a driver of leadership through partnership, the Bertelsmann University develops leadership programs that give managers an opportunity to reflect on and expand their personal effectiveness and leadership resources" (Bertelsmann, 2014).

Anheuser-Busch Cos.: The 2013 Annual Report highlights the following: "We expect our leaders to be guided by personal example, pointing the way forward for the entire organisation. We expect them to get the right results in the right way with a spirit of passion, urgency and accountability, and to inspire our colleagues to do likewise. Leaders never take the easy way out nor do things in a manner that places their own interests above those of the company, the consumers, the shareholders, their colleagues and the community" (Anheuser–Busch Cos., 2014).

JM Family Entreprises: "Leadership. Our Executive Management Team's role is to lead and inspire. Together they provide direction for the company's continued success in business and nurture the JM Family's unique culture by exemplifying our guiding principles every day" (JM Family Enterprises, 2014).

The contributions made by Shih *et al.* (2012), along with the intellectus model (CIC, 2012) and a number of examples found in the cases analysed helped design some indicators which could be used to measure "Leadership":

(1) percentage of people who know the firm's strategy and are involved in the achievement of the aims sought;

(2) percentage of people who see themselves as sharing the success of the business;

(3) percentage of people who consider that managers talk about the most important values and beliefs;

(4) percentage of people who feel a collective sense of mission;

(5) percentage of people who think that managers spend time teaching and coaching; and

(6) percentage of managers who take part in leadership training courses.

   - The leader will detect business opportunities which can only be achieved if external knowledge complements the family's already-existing knowledge. "Empowerment" – along with experience and training – are elements that can help motivate and develop the firm's human resources, regardless of whether they belong to the family or not, encouraging employees' commitment to problem-solving, to the accomplishment of objectives and, in short, to ensuring success for the firm. Dunham and Burt (2011) point out that psychological empowerment for individuals incorporates the sense of meaning, competence, self-determination and impact that knowledgeable employees may attain in their work. Han, Chiang and Chang (2010) argue that the participation of employees in organisational decision-making enhances their working motivation and makes them more willing to increase their investment in the organisation. In this context, it is possible to have a self-motivated staff through the satisfaction of several personal factors, including fulfilment, recognition and a rewarding task, along with the need for responsibility and personal development (Leach, 1991).

The empirical evidence presented below shows the extent to which the family firm takes an interest in generating the internal conditions related to empowerment and personal satisfaction that can favour their employees' self-satisfaction.

Bertelsmann: "From the beginning, Reinhard Mohn, founder of the firm, saw himself as a partner to everyone who worked with him for Bertelsmann. The great ideas underpinning its corporate culture have their roots here. Like no other, he understood how to motivate people by granting them the freedom to act on their own responsibility. He wasn't fond of rigid hierarchies. As a young man under the Nazis, he had seen where blind obedience to authority could lead. He wanted to do things better. He gave employees the freedom needed to take responsibility for their tasks. He gave the growing company a decentralised structure and delegated responsibility to many competent minds. He saw himself as a partner to his employees and made a point of speaking to one another as equals" (Bertelsmann, 2014).

Nestlé: "Nestlé has always believed that its human team is the company's most valuable asset, its main source of competitiveness and a key factor in its success [...] The company pays constant attention to the motivation and satisfaction among the people who work for Nestlé, which dedicates a considerable volume of its resources to supply tools for training as well as for personal and professional development" (Nestlé, 2013a).

Carrefour: "Happy employees mean happy customers, so we do everything we can to promote their well-being. Listening, an on-going social dialogue, a respectful work environment and proper compensation are levers for our staff performance and for the trust our customers have in them" (Carrefour, 2013).

C&A: "No firm with the size of C&A could operate so effectively if it were only made up of lone fighters. We need employees willing to work in a team, who work together for a goal, that is, for the firm's success. Seeking to maintain our employees' efficiency and satisfaction levels, we allocate them the highest possible degree of own responsibility in their work area" (C&A, 2013).

Marriott: "Our workplace practices and policies on providing fair compensation, safe and healthy workplaces and other commitments to human rights reflect our belief that the long-term success of our company is linked to our associates' satisfaction and well-being" (Marriott, 2013).

Based on the ideas of Dunham and Burt (2011), Han, Chiang and Chang (2010), the Intellectus Model (CIC, 2012) and a number of examples provided by the cases examined, these could be some indicators for "Self-motivation":

(1) percentage of people satisfied in their work positions;
(2) percentage of labour absenteeism;
(3) percentage of people promoted;
(4) number of people who value the work environment positively/total staff;
(5) number of training courses offered to employees;
(6) percentage of people who can decide by themselves how to do their work;
(7) percentage of people who think that the activities performed are meaningful to them; and
(8) percentage of people who participate in the decision-making related to work processes or the firm's strategy.

- Closely linked to the figure of the founder is entrepreneurship. Family firm entrepreneurs are characterised by their capacity to: identify problems and solve them; set objectives; control their fate; and seek prestige as well as recognition, although they may not always have as their ultimate aim to achieve a profit. One of the main problems which usually affect the family firm over time – and especially when it reaches success– is the proneness to accommodate within a specific situation, thus losing its entrepreneurship. Coping with this problem would require the adoption of family governance mechanisms which can transfer this entrepreneurial spirit to future generations. Among those mechanisms stands out succession planning and the firm's professionalisation process that must be linked to the implementation of a family protocol (which sets up governance structures such as the family assembly, the family holding council and the family councils of group firms). These succession and professionalisation procedures seek to guarantee the presence inside the firm of executives – belonging to the family or not – who own the knowledge, capabilities and skills required to ensure an enterprising orientation. At the same time, the existence of a family protocol can not only fix the values that need to be transmitted to the younger members and to the next generations but also act as a source of motivation and development for those future generations, who will see how their process of learning and adaptation to the family firm business is carried out in a proactive, formal and controlled way and being planned over time – since the processes to reach personal and professional goals are clearly specified (Lozano Posso, 2000). This all would be providing both family and non-family employees with possibilities for training, with freedom to work creatively and with chances for personal self-fulfilment.

Below can be found some cases providing empirical evidence for this intangible:

Walmart: Regarding the maintenance of entrepreneurship through the professionalisation process, Walmart points outs that "from the beginning, Sam Walton surrounded himself with the kind of people who had big ideas and weren't afraid to take risks and bring those ideas to life. Walmart has elevated and been guided by leaders like these, who constantly inspire us to achieve the next level of success" (Walmart, 2013).

Ikea: One of the values of this firm is: "Constant desire for renewal: Change is good. We know that adapting to customer demands with innovative solutions saves money and contributes to a better everyday life at home" […] "Daring to be different. We question old solutions and, if we have a better idea, we are willing to change" (Ikea, 2013).

Hyundai: "Core values: Challenge. We refuse to be complacent, embrace every opportunity for greater challenge, and are confident in achieving our goals with unwavering passion and ingenious thinking" (Hyundai, 2013).

Bosch: "Our values. Initiative and Determination. We act on our own initiative, with an entrepreneurial but accountable spirit, and demonstrate determination in pursuing our goals" (Bosch, 2013).

Solvay: "At Solvay, we encourage entrepreneurial spirit and high performance. We believe in our teams: the quality of our people, their commitment combined with a passion for innovation will be a key success driver to achieve our vision (being a model of sustainable chemistry, attracting and growing the people who will imagine, engineer and make the solutions which meet the global challenges that society faces)" (Solvay, 2014a).

Henkel: "We build our future on our family business foundation. We value the continuity of our purpose and vision based on our long history of success and a strong focus on our values. We are guided by our long-term vision which rests on a fair entrepreneurial spirit and a solid financial basis" (Henkel, 2014).

The examples above help identify some indicators for "Entrepreneurship":

(1) number of goals achieved by employees/number of targets;

(2) number of family executives/total executives;

(3) number of non-family members in the Board of Directors;

(4) existence of a family protocol;

(5) number of existing family-firm-governance structures;

(6) number of innovative solutions proposed by family members; and

(7) number of innovative solutions proposed by non-family members.

- Employee commitment influences overall performance and can be defined as the degree to which a person identifies with an organisation (Bontis and Serenko, 2009; Allen and Meyer, 1990). Employees may develop organisational commitment on the basis of being positively attracted by the sense of belonging to the organisation (Han *et al.*, 2010; Meyer and Allen, 1997).

The family members' level of commitment, their feeling of membership and dedication to the family business – all of which can also be considered highly valuable intangibles – together with a high degree of satisfaction regarding personal expectations within the organisation's framework, contribute to create a common purpose among employees and help them consolidate a feeling of identification with the organisation's achievements and a commitment to their firm (Habbershon and Williams, 1999). In fact, when the employees' sense of belonging is stronger, their willingness to remain in the organisation grows, and they show a stronger commitment to their organisations (Han *et al.*, 2010).

The shared identity among family business members permits to increase family and business loyalty, thanks to which a clear feeling of mission is obtained and more objective decisions are adopted. Sharing these values, a common commitment and taking part in the firm's decisions all become highly motivating factors for family firm employees, particularly for those who do not belong to the family – as they highly appreciate being so well received and integrated into the family:

Nestlé: As for Nestlé's Management and Leadership Principles, the value "grow talent and teams" shows that this firm "has a passion for building and sustaining an environment where people have a sense of personal commitment to their work and give their best to promote our Company's success" (Nestlé, 2011).

Michelin: "Michelin firmly believes that business performance and the professional success of its employees go hand in hand. The 'Moving Forward Together' program reaffirms the values that guide us every day and expresses the mutual commitments that the Group has undertaken and that employees are expected to demonstrate. Michelin wants every employee to be able to find fulfilment in their jobs. That's why performance and potential are assessed with a view to the long term, and training policies allow each employee to continue growing throughout their careers, while helping to drive the Group's development. As the same time, career management focuses on promoting from within and offering mobility opportunities" (Michelin, 2013).

C&A: "At C&A, we are a great family where each one of us is well informed and owns the same knowledge level. We help each other dedicating time to others. We work jointly in all sectors in order to ensure our firm's success" (C&A, 2013).

BMW: "Working together as a team. We want to constantly motivate one another to be better and to offer even better products. This can only be achieved with a strong team spirit. Critical reflection and self-critical development are only possible within the security of a functioning team. Because we treat each other with respect and esteem, our employees share a strong feeling of community –the crucial condition for success. Satisfied and motivated employees are an inestimably valuable competitive advantage for us" (BMW, 2013).

Heineken: "The passion of the Heineken family remains as strong today as it was in 1864 when we first started brewing beer" (Heineken, 2014).

Bouygues: "Martin Bouygues, Chairman & CEO of Bouygues, created a corporate savings plan invested in Bouygues shares in 1990 in order to give employees a stake in the Group's growth. The plan, to which the Group makes matching contributions, is a great success. The original scheme has been steadily improved over the years, encouraging small pay-ins in order to increase the number of investors" (Bouygues, 2014).

According to the contributions made by Matzler *et al.* (2011), Han, Chiang and Chang (2010), the intellectus model (CIC, 2012) and the preceding examples, some indicators could be designed for "Commitment, feeling of membership, dedication and shared identity":

(1) percentage of people who are proud of being a firm member;

(2) degree to which people feel that they belong to the firm;

(3) years of service in the firm;

(4) percentage of people involved in corporate improvement activities;

(5) percentage of employees with shareholdings in the firm;

(6) percentage of people who share family values;

(7) number of hours dedicated to the integration of new employees (family or non-family members);

(8) percentage of people who have been involved in developing the organisation's mission; and

(9) percentage of people who have been involved in shaping the organisation's vision.

- Emotions are far more influential in a family firm than in any other type of business organisation due to the emotional life experiences associated with kinship and because there is a whole lifetime during which the approaches to learning have been similar – as a result of which the decision-making process becomes more complex too. Feelings, which flow permanently inside the family firm, influence both the behaviour and the decision-making capacity of its members. This strong emotional component may be a powerful motivating element that materialises in a strong commitment to the family firm's success as well as its growth and development – but it can also become an important obstacle if it causes disputes and rows. The family system organisation can keep the family united (Davis, 1983), as it regulates the behaviour of family members through verbalised conduct rules and restrictive behaviour patterns which are unconsciously maintained. It would be wise to make sure that these rules and patterns provide an education oriented towards the understanding and good handling (intelligent use) of emotions – thus making a positive contribution to the family firm's success

Estée Lauder: "Today, Estée Lauder's children and grandchildren are active and involved in the thriving house of beauty that she so carefully built over many decades. But for them, it is much more than a family business; it is a way of life" (Estée Lauder, 2013).

C&A: "Despite its great size, C&A is still a family firm. That is what every single one of its 36,000 employees feels every day, because from the time when the firm was founded 170 years ago, our business culture has been characterised by fairness, frankness, equal opportunities and mutual confidence. We are convinced that this is one of the secrets behind C&A's success" (C&A, 2013).

L'Oréal: "This is a firm which forms part of my life," explained Jean-Victor Meyers, the grandson of L'Oréal owner, Liliane Bettencourt, during the L'Oréal general assembly held on 17 April 2012 that validated with a 97.6% of positive votes his incorporation into the Board of Directors for a four-year term of office, thus taking the baton from his grandmother at the cosmetic empire's board of directors (Teruel, 2012).

Based on the above, and taking into account the works of Han, Chiang and Chang (2010) and Davis (1983), the indicators that could measure the "Emotional family component" would include:

(1) number of verbalised and unconsciously maintained conduct rules which are oriented towards an intelligent use of emotions;

(2) number of unconsciously maintained restrictive behaviour patterns which are oriented towards an intelligent use of emotions;

(3) degree to which family members feel involved in the firm's successes or failures; and

(4) number of family employees/total employees.

- Creativity can be defined as the generation of novel ideas, useful concepts or new solutions to problems (Liu, 2013; Beth and Amabile, 2010). Highly motivated and creative groups often outperform groups with greater physical or financial resources (Quinn *et al.*, 1996).

For Sirmon and Hitt (2003) the ***c***reativity, skills, capabilities and acquired knowledge of family members characteristically allow family firms to accumulate a great potential to generate a deep tacit knowledge which is not only specific to the firm but also hard to imitate. The origin of a family firm lies in some knowledge or core competences (a privative know-how exclusive to the family) which have been tacitly transmitted from parents to children and which have been gradually enriched with new knowledge provided by well-trained descendants and employees who are additionally well connected with certain external agents. That initial knowledge has been continuously updated in order to cope with the new demands imposed by the ever-changing business environment.

This knowledge exclusive to the family and tacitly transmitted among family members can be treated like a kind of organisational memory, which recognises the capacity of organisations to learn from their past experiences (Dunham and Burt, 2011). Organisational memory allows firms to learn from their past, avoiding the repetition of past mistakes and adopting successful practices (Dunham and Burt, 2011; Neustadt and May, 1986; Johnson and Paper, 1998).

Walmart: "The founder Sam Walton said: Listen to your associates. They're our best idea generators. Our Grass Roots Process is our way of capturing associates' ideas, suggestions and concerns. But listening is not enough. That's why every area of the company also puts together a Grass Roots action plan to make good on our associates' ideas" (Walmart, 2013).

C&A: "We are always open to other people's opinions and take advantage of the different proposals so that we can continue to improve. In that respect, we suggest a results-based culture, requesting constructive comments and offering our own feedback about the results generated. We are permanently looking for better ideas that can allow us to keep optimizing our firm" (C&A, 2013).

BMW: "We regard the diversity of our employees as one of the BMW Group's particular strengths. It provides a pool of talented and competent individuals, helps integrate different perspectives into our everyday business and ensures a distinctive potential for innovation. As a result, the company is able to spot new trends and topics early on, understand the varied needs of its customers better and translate this information into solutions" (BMW, 2013).

Nestlé: "Nestlé understands the importance of continuous learning and improvement, as well as sharing knowledge and ideas freely with others" (Nestlé, 2011). "We also believe that our long-term success depends on our capacity to attract, develop, protect and retain the right and best employees" (Nestlé, 2010). "We are committed to continuous learning and development for our people. We encourage people to test their skills and develop new ones, both by giving them responsibility as early as is reasonable and by offering opportunities to work with people from many different countries and cultures" (Nestlé, 2013b).

Hyundai: "Core values: People. We believe the future of our organisation lies in the hearts and capabilities of individual members, and will help them develop their potential by creating a corporate culture that respects talent" (Hyundai, 2013).

Samsung: "A firm is essentially shaped by its employees. At Samsung, we offer our employees all the opportunities required for them to develop all their potential" (Samsung, 2013).

LG: LG Electronics develops initiatives aimed at promoting the wonderful atmosphere that is felt in the company, such as "We all learn from everybody else," a project which allows an employee to tell the other workmates something that only he knows or is familiar with (LG, 2013).

Cargill: "Personal growth through the development of new skills, knowledge and abilities is imperative to Cargill's success. We will provide you with the tools, the opportunities, and a culture that values and supports employee growth. Making the most of opportunities, however, begins with owning your responsibility for the strength of your network and development plan" (Cargill, 2013).

Carrefour: "Guaranteeing knowledge transfer and grooming the managers of the future. To help Carrefour employees buy into the same idea of trade and initiative, we are investing in training, field experience and work/study training. Carrefour's HR policy is also all about passing on knowledge: experienced employees groom future managers, identifying potential in their teams and sharing their knowledge of the business" (Carrefour, 2013).

Solvay: "Continuous skills improvement and the endorsement by every employee of the requirements of excellence are the keys to individual and collective performance. This was the premise of the "Performance, Development and Career" program that was deployed in 2013, with the goal of evaluating employee performance, developing behavioural skills that link in to the new corporate culture, defining individual development plans, and strengthening the discussion of career development" (Solvay, 2014a). "The Group survived both World Wars, thanks to its family shareholder base and jealously guarded manufacturing secrets" (Solvay, 2014b).

Anheuser-Busch Cos.: The Annual Report 2013 point outs that "We have created specific Excellence Programs to drive execution and sustainable results. These functionally focused programs help employees acquire and hone the skills to achieve excellence in several areas of work […]" (Anheuser–Busch Cos., 2014).

Several references have suggested indicators that can measure the intangibles proposed:

(1) Creativity indicators (based on Liu, 2013; CIC, 2012; and the examples above):
- percentage of proposed ideas which are successful;
- degree of diversity in the staff composition (e.g.: from different culture, from different country of origin);
- percentage of people dedicated to R&D&I activities;
- number of proposals suggested by employees to increase product quality;
- number of proposals suggested by employees to achieve goals or objectives; and
- number of proposals suggested by employees to develop creative solutions.

(2) Skills indicators (based on CIC, 2012 and examples):
- number of people who have carried out ongoing training/total staff;
- percentage of people who have occupied different roles during the period of work of the firm;
- number of people integrated into work teams oriented to sharing skills, knowledge or experiences;
- existence of an employee skills inventory;
- how often the employee skills inventory is implemented; and
- existence of competence assessment systems.

(3) Capabilities and knowledge acquired from indicators related to family members (Based on Dunham and Burt, 2011 and examples):
- number of years working with family members;
- number of projects developed with family members;
- degree of awareness about the fact that the activities carried out are specific to the firm; and
- degree of knowledge about the major turning points in the firm's past.

(4) A family firm must pay special attention to relationships between parents and children when the latter join the family firm with managerial responsibilities, or between successors belonging to the family when they share firm management tasks. Intergenerational conflicts may appear but new generations usually provide the family firm with a number of advantages such as the diversity

of opinions and perspectives for problem analysis, teamwork, the suggestion of new initiatives and higher objectivity during evaluation and decision-making processes. In this respect, both the task-related conflict (different visions about work and business, and with regard to the specific goals or objectives which have to be reached) and the process-related conflict (disagreement about the procedure or the methods used, about the way to do things) may prove highly positive for the family firm (Kellermanns and Eddleston, 2004) since they play a dynamising role both in the family and in the firm, apart from permitting communication between their members and contributing to a considerable increase in the maturity level of the firm as well as of the family (Ayala Calvo and Manzano García, 2005). Faced with this context, and in addition to being able to find solutions and reach agreements, the founder must be willing to share business management and his knowledge – and successors must have acquired the interpersonal skills required for shared decision-making – in order to achieve success. It helps keep the company's strength and maintain the energy that feeds the enthusiasm for firm growth, thus becoming a powerful motivating asset. Understanding the importance of knowledge transfer in the succession process may help develop and maintain competitive advantage in family firms (Cabrera–Suárez *et al.*, 2001).

Tous: Salvador Tous, co-founder of the firm with his wife, explains that he lives the transfer between generations "[…] with a lot of work. You must give way to the following generation, you are fully confident, but with a certain degree of fear. Text books are fantastic, but reality is not like that. The successor has to prove that he is good enough but, how can he do that if you are overshadowing him?" It is not easy to be used to doing whatever you want and suddenly see how another person does it in his own way" (Galtés, 2012). "We have been preparing generational replacement for many years. We have worked together during the last 20 years […]. and now it's their turn to do what they deem appropriate in a situation that has changed to a considerable extent" (El País, 29/11/2009).

According to the empirical evidence, these are some of the indicators which could be used to measure this sort of intangible:

(1) number of activities involving the founder's children;

(2) number of activities involving successors;

(3) number of contributions suggested and accepted by the founder's children;

(4) number of contributions suggested and accepted by successors;

(5) number of relatives involved in corporate projects; and

(6) number of relatives involved in the decision-making process.

- Non-family professional executives are attracted from outside because they own some knowledge that the firm does not have and that it cannot internally generate either. They usually import new ideas and working methods – together with a more objective vision of business – into the family firm. Furthermore, since they are not biased by the "recipes followed by the family firm," they can also provide more innovative and creative behaviours. Paying more attention to these employees will provide leadership opportunities, thus making them more interested in the collaboration and participation that can help solve the company's problems (Hashemitaba and Ferebee, 2013).

Samsung: "Creativity, collaboration and excellence are the features which define leadership at Samsung. Attracting the world's most talented executives and constantly developing our firm's culture to support them, we promote innovative ideas that contribute to technological progress, to the creation of new products and markets, and to the improvement of our customers' everyday life" (Samsung, 2013).

Marriott: "We value our associates and recognize that our global workforce is a key to our success. Our associates create the personal experiences that keep our guests coming back to our hotels. We were founded on the philosophy of 'taking care of our associates so that they can take care of our guests', and our commitment to human rights practices and performance is an integral part of this philosophy" (Marriott, 2013).

Associated British Foods: "As we seek to recruit the senior managers of the future, our standards and expectations are high. We look for high-calibre individuals whose technical skills in their own discipline are backed by energy, drive and ambition. Men and women who relish change and can demonstrate impressive team-working skills" (Associated British Foods, 2014).

Taking Hashemitaba and Ferebee, (2013) and the examples proposed as a reference, the indicators listed below could measure the "Knowledge owned by non-family professionals":

(1) number of contributions to business projects suggested by non-family professionals;

(2) number of ideas suggested and put into practice by non-family professionals;

(3) number of corporate activities in which non-family professionals are involved; and

(4) number of non-family executives/total executives.

Table II shows all the human capital indicators for family firms developed in this study.

5. Conclusions

Because family firms have a set of intangibles which distinguish them from non-family firms and, bearing in mind that individuals represent the most important input for firms, the purpose of this work was to identify a set of human capital intangibles in family firms as well as a series of indicators that can be used to measure them.

Seeking to achieve this purpose, ten intangibles characterising the human capital owned by these types of firms were identified on the basis of a thorough review of the literature devoted to family firms and the intellectual capital-based view of the firm, along with the empirical evidence obtained through a multiple case study which involved 25 family firms. Moreover, that empirical evidence together with previous works existing in the literature on human resources management, works on family firms and the intellectus model (CIC, 2012) served as the basis for the creation of 60 indicators meant to measure all the human capital intangibles identified.

Several contributions result from this paper. From a theoretical point of view, the intellectual capital-based view is linked to the literature about family firms, identifying a pool of human capital intangibles which are inherent to these firms and designing some indicators that can be used to quantify them. No publications offering a similar approach were available in the literature so far. And in managerial terms, identifying

Human capital intangibles in family firms	Indicators
Leadership	Percentage of people who know the firm's strategy and are involved in the achievement of the aims sought
	Percentage of people who see themselves as sharing the success of the business
	Percentage of people who consider that managers talk about the most important values and beliefs
	Percentage of people who feel a collective sense of mission
	Percentage of people who think that managers spend time teaching and coaching
	Percentage of managers who take part in leadership training courses
Self-motivation	Percentage of people satisfied in their work positions
	Percentage of labour absenteeism
	Number of people promoted
	Number of people who value the work environment positively/ total staff
	Number of training courses offered to employees
	Percentage of people who can decide by themselves how to do their work
	Percentage of people who think that the activities performed are meaningful for them
	Percentage of people who participate in the decision-making related to work processes or the firm's strategy
Entrepreneurship	Number of goals achieved by employees/number of targets
	Number of family executives/total executives
	Number of non-family members in the board of directors
	Existence of a family protocol
	Number of existing family-firm-governance structures
	Number of innovative solutions proposed by family members
	Number of innovative solutions proposed by non-family members
Commitment, feeling of membership, dedication and shared identity	Percentage of people who are proud of being a member of the firm
	Degree to which people feel that they belong to the firm
	Years of service in the firm
	Percentage of people involved in corporate improvement activities
	Percentage of employees with shareholdings in the firm
	Percentage of people who share family values
	Number of hours dedicated to the integration of new employees (family or non-family members)
	Percentage of people who have been involved in developing the organisation's mission
	Percentage of people who have been involved in shaping the organisation's vision
Emotional family component	Number of verbalised and unconsciously maintained conduct rules which are oriented towards an intelligent use of emotions
	Number of unconsciously maintained restrictive behaviour patterns which are oriented towards an intelligent use of emotions
	Degree to which family members feel involved in the firm's success or failures
	Number of family employees/total employees

(*continued*)

Table II.
Human capital intangibles and indicators of family firms

Human capital intangibles in family firms	Indicators
Creativity	Percentage of proposed ideas which are successful
	Degree of diversity in the staff composition
	Percentage of people dedicated to R&D&I activities
	Number of proposals suggested by employees to increase product quality
	Number of proposals suggested by employees to achieve goals or ojectives
	Number of proposals suggested by employees to develop creative solutions
Skills	Number of people who have carried out ongoing training/Total staff
	Percentage of people who have occupied different roles during the period of work of the firm
	Number of people integrated into work teams oriented to sharing skills, knowledge or experiences
	Existence of an employee skills inventory
	How often the employee skills inventory is implemented
	Existence of competence assessment systems
Capabilities and knowledge acquired from family members	Number of years working with family members
	Number of projects developed with family members
	Degree of awareness about the fact that the activities carried out are specific to the firm
	Degree of knowledge about the major turning points of the firm's past
Parent-child relationships and relationships between successors	Number of activities involving the founder's children
	Number of activities involving successors
	Number of contributions suggested by the founder's children and finally accepted
	Number of contributions suggested by successors and finally accepted
	Number of relatives involved in corporate projects
	Number of relatives involved in the decision-making process
Knowledge owned by non-family professionals	Number of contributions to business projects suggested by non-family professionals
	Number of ideas suggested and put into practice by non-family professionals
	Number of corporate activities in which non-family professionals are involved
	Number of non-family executives/total executives

Source: Self-elaboration

Table II.

the human capital intangibles of family firms and their indicators can help managers become aware of their actual importance and it will surely help them improve the management of such intangibles, thus making the most of intellectual capital. Authors like Giovannoni *et al* (2011) point out that human capital indicators give prominence to issues related to creativity and innovation. The authors of this paper think that the knowledge of these measures by executives turns out to be essential to improve firm performance and also that the formal introduction of new measures allows the staff working for the firm to become more aware of the need to achieve specific targets with regard to creativity and innovation as well. Moreover, the human intangibles of family firms identified in this study together with the indicators created to measure them could represent a useful starting point to value human capital assets in the balance sheet as well as to make comparisons of these human intangibles between family and non-family organisations.

The present study did face certain limitations mainly derived from the difficulty in collecting all the human capital intangibles which characterise family firms and the problems associated with the creation of precise indicators for their measurement. Another limitation stems from the fact that the empirical evidence used came from secondary data and from a case-study-based research, which prevents the generalisation of the results obtained to a larger population and to different theoretical conditions. However, all these limitations do nothing but encourage the authors to continue working in this field, to further develop and broaden the research initiated with this paper, seeking to reach a second level which can not only offer human capital intangibles but also intangibles related to structural and relational capital – along with the possibility to provide indicators which permit to quantify all those intangibles. This will hopefully provide a more faithful picture of family firms than the one often provided by the traditional assessment methods.

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