The impact of corporate social responsibility (CSR) knowledge on corporate financial performance: evidence from the European banking industry

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Abstract

Purpose – *Assuming that corporate social responsibility (CSR) is "a process of accumulating knowledge and experience" (Tang et al., 2012, p. 1298), this paper aims to investigate whether and how CSR knowledge (Asif et al., 2013; Kim, 2017) affects financial performance in the European banking industry.*

Design/methodology/approach – *The empirical research analyses a panel of 72 banks from 20 European countries over seven years (2009-2015). The hypotheses were tested using fixed effects regression analysis and the two-stage Heckman model (1976) to address endogeneity bias.*

Findings – *The findings of this work are twofold. First, consistent with the concept of knowledge absorptive capacity (Cohen and Levinthal, 1990), the internal CSR of banks (Kim et al., 2010) positively affects citizenship performance (Peterson, 2004a). Second, in line with the reputational effect of CSR (Margolis et al., 2009; Bushman and Wittenberg-Moerman, 2012), citizenship performance is a positive predictor of a bank's financial performance.*

Practical implications – *From a knowledge-based perspective, the analysis shows that accrued internal CSR knowledge plays a key role in implementing effective CSR programs for external stakeholders. Moreover, this study shows how CSR engagement in external initiatives can improve a bank's competitiveness because of the relationship between citizenship performance and the positive reputation of a bank.*

Social implications – *The management of CSR initiatives may favor the sharing of knowledge and creation of trust relationships among banks and internal and external stakeholders. CSR knowledge contributes to expanded value creation for both society and banks.*

Originality/value – *The knowledge management perspective of CSR provides new insights into the sustainability of banks' business models and contributes to advancing the debate on the governance modes and effects of CSR. Moreover, the CSR perspective offers additional opportunities for addressing the challenges associated with sharing tacit knowledge within and outside of organizations.*

Keywords *Corporate social responsibility, Financial performance, Banks, Social performance, Knowledge management, CSR knowledge*

Paper type *Research paper*

1. Introduction

The last financial crisis renewed the academic and policymaker interest in banking business models (Hurley *et al.*, 2014; Esteban-Sanchez *et al.*, 2017). Deteriorating reputations and the growth of nonperforming loans (NPL) are two aspects of the management crisis that the banking industry experienced in many economically developed countries. The European context was not immune to these phenomena, as shown by the

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size of the NPL (on average, 5 per cent of total gross loans in June 2017) and by the more restrictive measures adopted by the European Union to bail out distressed banks[1].

This scenario prompts new questions about how banks are managed, including their moral standards (Shen *et al.*, 2016). More specifically, an emerging and very infrequently investigated issue is the relationship between corporate social responsibility (CSR) knowledge (CK) and banks' financial performance. However, in addition to banks' involvement in the causes and effects of the last financial crisis, there are several theoretical and practical reasons why banks represent a significant setting for studies of knowledge management (KM) and the social responsibility of business.

In the literature, the banking system is considered one of the most knowledge-intensive sectors (Saengchan, 2008; Curado, 2008). Prior studies (Kamath, 2007) argue that the business nature of the banking sector is intellectually intensive. The core competitiveness in this industry is reliant on the ability of management to systematically manage and profit from accrued knowledge and experiences (Shih *et al.*, 2010). Value creation in the financial sector has gradually shifted toward the ability to develop and integrate intangible knowledge in the core business. Furthermore, in recent years, the banking industry has undergone noticeable changes in its business models and formal rules (e.g. new Basel agreements; product and process innovation; trust recovery and reputational risk). Knowledge creation and management have become even more important elements of differentiation for banks to cope with this increasingly changing environment (Curado *et al.*, 2014). Nevertheless, the literature on the role of the knowledge-creating process in the banking system is rather poor relative to research on other industries (Curado *et al.*, 2014). Existing studies have mainly focused on the role of intellectual capital, which represents only one aspect of the broader KM process (Wiig, 1997; Mouritsen *et al.*, 2002; Kok, 2007). A large portion of these studies, then, are geographically limited to specific areas, such as Malaysia (Ali and Ahmad; 2006), Thailand (Nantapanuwat *et al.*, 2010), Libya (Kridan and Goulding, 2006), Portugal (Curado, 2008) or Turkey (Uğurlu and Kızıldağ, 2013), or they analyze specific types of banks, such as Islamic banks (Nawaz and Haniffa, 2017).

Moreover, the competitiveness and soundness of the banking industry have a critical role in creating social benefits. Given its characteristics, the banking industry must stay abreast of the business cycles of all other industries (Shih *et al.*, 2010). Most empirical studies conclude that financial sector development accelerates economic growth (Levine, 1997, 2005; Wachtel, 2001). By using resources from society, banks have to provide feedback to the community more often than other sectors do (Wu and Shen, 2013). However, although the banking sector was among the first industries to engage in CSR (Scholtens, 2009; Soana, 2011), prior investigations of CSR engagement are rare and inconclusive (Wu and Shen, 2013). Some studies (Wu and Shen, 2013; Shen *et al.*, 2016; Esteban-Sanchez *et al.*, 2017) support the social impact hypothesis (Freeman, 1984), in which CSR ultimately leads to favorable financial performance. Other studies (Scholtens and Dam, 2007; Cabeza-García *et al.*, 2010; Chih *et al.*, 2008) are consistent with the trade-off hypothesis (Friedman, 1970), in which CSR engagement may lower financial performance. Apart from some inconclusive results, none of the mentioned studies thoroughly explores the causal relationships between CSR engagement and financial performance through the lens of knowledge. A large portion of the previous investigations examine the impact of CSR as a whole without considering relationships with different stakeholder categories or distinguishing the single pillars of CSR (Wu and Shen, 2013). Moreover, none of these prior studies on CSR commitment in the banking industry thoroughly investigates the links between the single pillars of banks' CSR engagement or tries to understand these interactions from a knowledge-based perspective. Finally, regarding the empirical strategy, the existing literature does not always consider the endogeneity bias, which is one of the main methodological explanations for mixed results (Jo and Harjoto, 2011, 2012).

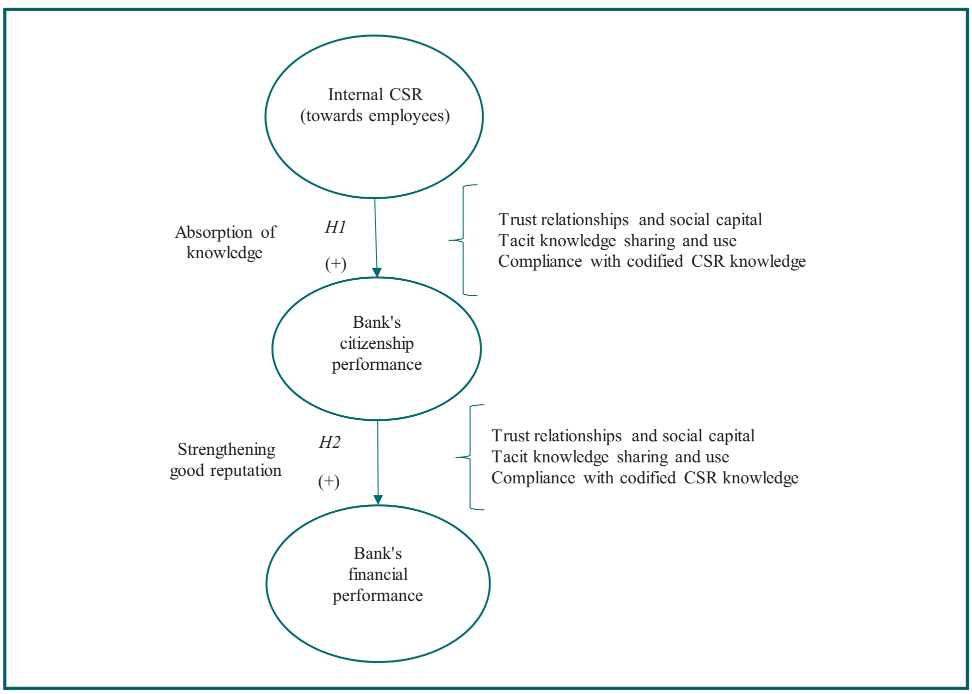
Assuming that CSR is "a process of accumulating knowledge and experience" (Tang *et al.*, 2012, p. 1298), this paper contributes to filling the aforementioned gaps in the literature. First, the current work adopts a multilevel analytical approach that disentangles the different dimensions of CSR and their relationships with banks' financial performance. Second, the study adopts a knowledge-based perspective to interpret the linkages and impacts of internal and external CSR. In particular, our analysis acknowledges the benefits of the mutual linkage between CSR and KM (Preuss and Cordoba-Pachon, 2009; Lapina *et al.*, 2014). In addition, the absorptive capacity of knowledge (Cohen and Levinthal, 1990) and the reputational effect of CSR (Margolis *et al.*, 2009) are both well-established premises of the conceptual framework of the current study. Third, we extend the empirical analysis to a geographic area that is wider than those explored in earlier studies. The context is the European banking industry, as Europe includes countries whose economies are traditionally bank dependent. Fourth, the test of the research hypothesis is based on a fixed effect model and the two-stage Heckman (1976) model for addressing endogeneity bias. The study period follows the eruption of the last financial crisis and ranges from 2009 to 2015. Data were gathered from Reuters data sets.

The remainder of the paper is organized as follows. Section 2 includes the theoretical background and the hypotheses. Section 3 explains the methods of the empirical study. Section 4 presents the results of descriptive and inferential analyses. Section 5 includes the discussion and implications of the empirical findings. The last section provides the main conclusions of the study, its limitations and an agenda for further research.

2. Background and hypotheses development

The conceptual framework of the current study is shown in Figure 1. To investigate the relationship between CSR and financial performance from a knowledge-based perspective, the study provides some preliminary clarifications.

Figure 1 Conceptual framework



First, based on stakeholder categories, we distinguish internal CSR from external CSR (Brammer *et al.*, 2007; Kim *et al.*, 2010; Hameed *et al.*, 2016; Hawn and Ioannou, 2016). Prior studies (Kim *et al.*, 2010; Esteban-Sanchez *et al.*, 2017) identify internal CSR with employees relations because it involves how an organization manages the people it employs[2]. In contrast, external CSR involves activities related to external stakeholder categories (Sirgy, 2002), such as the community, customer relations, the environment and human rights (Tang *et al.*, 2012). According to Kim *et al.* (2010), we refer to citizenship performance (Peterson, 2004a) as the social performance related to external CSR[3]. The latter encompasses initiatives and behaviors that prior literature defines as the key elements of good corporate citizenship (Epstein, 1989), such as community contributions, the way an organization interacts with the physical environment and its ethical stance toward external stakeholders (Carroll, 1979). Maignan *et al.* (1999) regard citizenship performance as the activities that a company undertakes to meet social demands responsibly. As argued by Brammer *et al.* (2007), external CSR refers to aspects primarily concerned with the external image and reputation of the organization.

Second, to better discern CSR engagement strategy and its effects, consistent with Tang *et al.* (2012), we disentangle the internal CSR performance of banks from their citizenship performance. Drawing on the phenomena of the absorption of knowledge and learning capability (Hull and Covin, 2010), it is suspected that internal CSR positively affect the citizenship performance of banks. Based on the relationship between CSR and corporate reputation (De Castro *et al.*, 2006; Margolis *et al.*, 2009; Tang *et al.*, 2012), better citizenship performance of a bank is expected to be positively associated with better financial performance.

The common denominator of these relationships is the management of CK (Preuss and Cordoba-Pachon, 2009; Tang *et al.*, 2012; Asif *et al.*, 2013; Lapina *et al.*, 2014; Kim, 2017). Based on the general definition of knowledge proposed by Nonaka (1994), CK pertains to actions informed by beliefs about the social responsibility of a corporation. CK can be defined as "an individual's awareness and understanding of a corporation's CSR activities that are obtained through both direct and indirect experience with the corporation" (Kim, 2017, p. 5). Hence, this paper examines CK from two related perspectives.

The first perspective is internal and involves organizational culture and the knowledge that pertains to individuals and groups employed by the bank. Through a climate of trust and shared values, internal CSR is expected to contribute positively to the organizational knowledge that is embedded in human resources and managerial skills (Brammer *et al.*, 2007). From this point of view, internal CSR has a synergistic relationship with effective KM, as people and culture are "at the heart of creating a successful knowledge-based organization" (Mårtensson, 2000, p. 211). At the same time, organizational knowledge and culture guide the ways that managers choose to address the potential social responsibilities of their company (Maignan *et al.*, 1999). The other perspective in our analysis is external and involves the relationship between CK and citizenship performance. The latter consists of CSR actions and outcomes that influence a bank's reputation and trust relationships with stakeholder categories outside the organization (Bhattacharya and Sen, 2004). This relational capital represents an intangible asset with a significant tacit knowledge component (Darroch, 2005). Effective KM provides coordinating mechanisms that convert the CK from citizenship performance into dynamic and operational capabilities that lead to competitive advantage (Eisenhardt and Martin, 2000; Zollo and Winter, 2002; Darroch, 2005; Cepeda and Vera, 2007)[4]. In particular, following Maignan *et al.* (1999), citizenship performance involves differentiated demands, is difficult to imitate and provides core arguments that can be used in external advertising aiming to improve a bank's image for customers and in negotiations with community leaders. These actions may be taken to mitigate the risk of stakeholders' backlash or to integrate stakeholders' demands and expectations into the company's operations, structures and processes (Crilly *et al.*, 2012).

2.1 Internal corporate social responsibility and knowledge management

One of the pillars of modern CSR, which integrates the social and economic responsibility of business (Carvalho *et al.*, 2014), is the interest in employees (Greening and Turban, 2000). People employed in an organization hold an implicit (uncoded) form of knowledge that is tacit in nature, being rooted in an individual's experience and values (Polanyi, 1966; Nonaka, 1994; Nonaka and Konno, 1998; Nonaka *et al.*, 2002). The progress of information technology has facilitated the storage of explicit knowledge (codified), whereas tacit knowledge resides in the minds of people and is difficult or impossible to reduce to writing (Van Wijk *et al.*, 2001). The tacit knowledge of the organization exists in the form of its employees (Asif *et al.*, 2013).

The sharing and use of tacit knowledge depend upon individual decisions and trust relationships (Holste and Fields, 2010). These concepts are significant for banks, as the latter can be considered knowledge-intensive organizations (Saengchan, 2008; Curado, 2008). The broad recognition that the effective management of knowledge is essential to the competitiveness of firms (Holste and Fields, 2010; Carayannis *et al.*, 2017) is consistent with modern bank management (Ali and Ahmad, 2006).

Lapina *et al.* (2014) highlight the mutual linkage between CSR and KM. The latter consists of the process of accumulating, creating and sharing knowledge so that it can be applied effectively throughout the organization (Turban *et al.*, 2003; Hoffman *et al.*, 2005). A dynamic view of knowledge aims to emphasize the importance of the individual as a knowledge worker and source of innovation (Preuss and Cordoba-Pachon, 2009). Delmas and Pekovic (2018) demonstrate how employees' social interactions have a decisive and positive impact on corporate sustainable innovation. Because internal CSR concerns the management of people[5], whose most valuable asset is knowledge, CSR and KM can be considered synergistically related (Lapina *et al.*, 2014).

KM can foster progress toward CK in different ways (Preuss and Cordoba-Pachon, 2009). From the element view (static), KM may aid in the capture, storage and distribution of the explicit type of CK. This is predominantly related to top-down decisions and codified standards of CSR. This element view of CK is somewhat similar to the concept of explicit CSR proposed by Matten and Moon (2008), in which it is possible to reduce CK to writing (documents, reports, presentations, etc.). The element dimension of CK is important in the banking industry[6]. The economic and social relevance of banks has led to the application of certified and nonmandatory standards for CSR and social disclosure (e.g. SA 8000; ISO 26000; GRI guidelines; Top Employers Institute Certification; Equator Principles; UN-Global Compact)[7]. From a process and more dynamic view, CSR knowledge emphasizes the skills of CSR advocates, and KM may support efforts for new ways of working within the organization in the transition to corporate sustainability. Operational aspects may assume the form of communities of practice, structures of dialog and other organizational solutions, such as a mix of top-down and bottom-up communication patterns, to facilitate the discussion about the implications of CSR (Preuss and Cordoba-Pachon, 2009). From both the element and process perspectives, KM aids the integration of CK with the explicit and tacit knowledge of the organization (Asif *et al.*, 2013). This integration confers greater legitimacy to CSR. It is difficult for individuals to enact their knowledge to implement CSR because this requires certain competencies at a collective level (Nijhof *et al.*, 2005; Asif *et al.*, 2013). Thus, the integration of CK within the organizational knowledge (Brammer *et al.*, 2007) may offer opportunities to consolidate and share employees' experience through internal CSR initiatives.

Furthermore, internal CSR may improve KM through the building of trust relationships, both affect-based and cognition-based (Lucas, 2005). Trust between people mitigates the perceived risks that sharing tacit knowledge may involve at an individual level (Holste and Fields, 2010). According to Mårtensson (2000), employees are frequently reluctant to share their expertise because they are competitive by nature and are inclined to hoard rather than share the knowledge they possess. Therefore, internal CSR represents a source of social capital within the organization (Putnam, 1993)[8], and its core is "the value created by fostering connections between organizational members", aiding in the management of tacit knowledge embodied in people (Hoffman *et al.*, 2005, p. 97). Internal CSR may be a media that makes the socialization of knowledge between individuals and groups more fluid[9].

In summary, internal CSR and KM can be the foundation for a sustainable bank culture that provides a group identity for people employed by the organization. This should increase opportunities for information sharing, cooperation, learning and knowledge creation that may sustain a competitive advantage over banks that are less adept at KM (Lewicki and Bunker, 1996; Hoffman *et al.*, 2005).

2.2 Citizenship performance and knowledge management

Another dimension of CK is related to external CSR. The latter is involved in enhancing relationships with stakeholders that are outside of organizational boundaries, with the ultimate goal of strengthening trust relationships between the bank and the social fabric. The strategic design of external CSR activities aims at increasing the bank's reputation and the perception of its legitimacy on the part of the community. Bank's reputation is a key factor in improving its competitiveness (Wu and Shen, 2013; Dell'Atti *et al.*, 2017; Forcadell and Aracil, 2017). This causal relationship justifies the growing interest in the construction and retention of a positive reputation and strong trust relationships with external stakeholders through effective citizenship performance (De Castro *et al.*, 2006; Kim *et al.*, 2010; Kim, 2017).

Prior studies argue that reputation is an asset characterized by a high rate of intangibility and tacit knowledge (Barney, 1999; Darroch, 2005; De Castro *et al.*, 2006). Accordingly, the production of reputational benefits from effective citizenship performance is closely intertwined with effective KM that enhances the conversion of knowledge into capabilities (Darroch, 2005), both dynamic and operational (Zollo and Winter, 2002; Helfat and Peteraf, 2003; Winter, 2003). In particular, due to the direct and continuous interaction with the external context, citizenship performance provides significant knowledge to capitalize on CSR efforts through effective KM. The latter is the formalized approach to manage the creation, transfer, retention and utilization of explicit and tacit knowledge assets (Liebowitz and Wilcox, 1997). Given the ties with reputation and social legitimation (De Castro *et al.*, 2006), a bank's greater awareness of external stakeholder needs represents what Cepeda and Vera (2007) define as a critical knowledge area connected to key success factors. Relative to that area, citizenship performance is a fundamental source of information that more competing socially responsible banks must manage effectively. This is consistent with a vision of knowledge as an information-handling problem ranging from the collection and storage of information to its availability and use (Mårtensson, 2000). Therefore, effective citizenship performance is linked with the creation, management and exploitation of knowledge.

According to Darroch (2005), KM provides the coordinating mechanisms (Nelson and Winter, 1982) needed to ensure that employees not only know their own tasks but also are able to interpret and respond to information flowing from the external environment into the organization. Relative to citizenship performance, KM allows for the accumulation and transformation of tacit knowledge of the external context into explicit knowledge that can be integrated into the bank's sustainable culture.

Second, KM contributes to converting citizenship performance into a bank's dynamic capabilities through experience accumulation and knowledge articulation and codification (Zollo and Winter, 2002; Cepeda and Vera, 2007). For instance, we can consider the social disclosure to external stakeholder through the application of codified standards (e.g. GRI).

This interaction between external CSR activities and KM further improves the citizenship performance of the bank over time, thus feeding a knowledge evolution cycle (Zollo and Winter, 2002) that supports the ability to compete for a knowledge-intensive organization such as a bank.

Finally, the KM capability (Darroch, 2005) allows competitive advantages to be obtained from another knowledge dimension related to citizenship performance, such as the CK held by external stakeholder categories through their direct and indirect experience with the bank. Earlier studies have claimed that negative stakeholder reactions to CSR engagement result from a lack of knowledge of the outcomes of CSR activities (Kim and Ferguson, 2016). Hawn and Ioannou (2016) find that a lack of knowledge of external CSR actions is negatively associated with market value of business as the accumulation of intangible assets depends on the interplay between internal and external CSR initiatives (Hawn and Ioannou, 2016). Accordingly, increasing external stakeholders' CK is the prerequisite to securing and maximizing the reputational benefits of a bank's CSR commitment (Kim, 2017). From this perspective, information deriving from citizenship performance is useful for designing CSR actions that better match claims from the external environment. This matching makes external stakeholders more likely to be aware of the outcomes of a bank's external CSR. This greater awareness by external stakeholders increases the effectiveness of citizenship performance in terms of improving both reputation (Kim, 2017) and financial performance (Wu and Shen, 2013; Dell'Atti *et al.*, 2017).

2.3 The relationship between internal corporate knowledge and a bank's citizenship performance

Internal CK may be a driver of social performance related to other stakeholder groups, which may foster additional knowledge both internal and external to the organization. Such knowledge can be considered a mix of experiences, values and contextual information that facilitate the incorporation and processing of new information (Gammelgaard and Ritter, 2005).

The main implementers of a CSR program are the people employed by the company (Lapina *et al.*, 2014). Employees and managers are the stakeholders whose values and experience drive socially responsible initiatives and exert pressure on CSR practices (Park *et al.*, 2014). Internal CSR influences employees' organizational identification (Hameed *et al.*, 2016), and KM contributes to integrating internal CK within the organizational culture. The integration of experiences and values into organizational processes aids in developing institutional knowledge that sustains CSR learning (Asif *et al.*, 2013). According to Ardito and Dangelico (2018), the strategic orientations related to CSR performance (e.g. environmental performance) refer to the general culture in an organization. These aspects affect the design and effective implementation of CSR activities addressed to external stakeholders such as the community, the environment or customers (Sirgy, 2002). Internal CK can aid in self-evaluation by managers and employees with regard to other CSR actions (Collier and Esteban, 2007). A bank that has invested in the management of internal CK can be more effective when it is called upon to decide how to invest in CSR policies that involve the bank's citizenship performance.

Tang *et al.* (2012) note that the benefits of CSR activity directed toward external stakeholders will evaporate quickly if the related knowledge is not internalized into the organization's operations and routines[10]. CSR initiatives driven solely by external pressures are more likely associated with less integrated CSR and can be easily decoupled from day-to-day practices (Basu and Palazzo, 2008). Regarding the concept of knowledge absorption (Cohen and Levinthal, 1990), Tang *et al.* (2012) note that the focus on internal CSR allows an organization to build its internal capacities, which can help the organization respond to the requirements of other stakeholder groups more effectively in the long term. It would be difficult to consider a business model to be committed to its moral obligation to society if the organization is inadequate in taking care of its employees. This "internal-to-external approach" (Tang *et al.*, 2012, p. 1283) functions as a signal that can help a bank build a durable reputation and achieve competitive advantage (Bhattacharya and Sen, 2004).

Studies confirm that external CSR is closely related to organizational commitment (Brammer *et al.*, 2007) and job satisfaction (Valentine and Fleischman, 2008). Employees who participate in CSR efforts directed toward other stakeholder groups offer their time, experience and skills, often through voluntary programs. Their role cannot be confined to the mere execution of CSR activities. Employees involved in internal CSR can also suggest other CSR policies because they have a voice in the organization's CSR initiatives (Kim *et al.*, 2010). Such a proactive role enhances employees' work attitudes (Peterson, 2004b). Indeed, empirical evidence in the banking industry confirms the positive impact of internal CSR on banks' competitiveness (de la Cruz Déniz-Déniz and De Saá-Pérez, 2003; Mention and Bontis, 2013; Eren *et al.*, 2013; Esteban-Sanchez *et al.*, 2017).

Therefore, internal CSR makes people more aware of their social responsibility. The identification of employees with positive organizational values encourages the sharing of tacit knowledge and personal expertise, thus increasing the effectiveness of the KM that is necessary to design and implement effective external CSR actions. Through the absorption of knowledge, internal CSR fosters the ability of banks to address the claims of external stakeholders. Accordingly, summarizing the above discussion, we formulate the following hypothesis:

H1. Internal CSR performance positively impacts banks' citizenship performance.

2.4 The relationship between a bank's citizenship performance and financial performance

Banks are economic institutions that exercise the sensitive functions of collecting and employing resources in the community (Wu and Shen, 2013). Acting as financial intermediaries, banks manage money and information (Chemmanur and Fulghieri, 1994). The execution of this complex activity requires the management of two related intangible resources: reputation and trust. Scott and Walsham (2005) argue that the knowledge economy places value on organizational reputation. Trust is more than a contract; it holds people together in periods of uncertainty (Scott and Walsham, 2005). From this perspective, the discussion about reputation risk cannot be solely focused on a failure to fulfill contractual obligations; rather, reputation must also be considered within the context of social responsibility and business ethics (Sison, 2000).

Because social responsibility is part of a broader reputation agenda, one way to integrate CK management with modern banking theories is to relate it to the role of bank reputation (Wu and Shen, 2013). The latter can be understood as the consensus about perceptions of a bank and is subject to processes of chronic revision (Scott and Walsham, 2005). This consensus is based on the beliefs of a community. When beliefs are generated, sustained and organized through the flow of information, they can be linked with people's knowledge of a given organization, both within and outside its boundaries. The presence of many converging positive beliefs indicates a good reputation.

A good reputation contributes to fostering trust. Given the purpose of this paper, a good reputation can be associated with the sense of security that external stakeholders have regarding a bank. Trust and reputation enhance the citizenship right (Carroll, 1998; Matten and Crane, 2005) of a bank as an organization whose existence is legitimized. de Castro *et al.* (2006) argue that a bank's reputation is the outcome of a process of social legitimization, and this was confirmed by Deephouse (2000). A corporate reputation requires time and is developed through a social process. Barney (1999) defines reputation as a "socially complex capability" that is characterized by a unique historical context, path dependence, social complexity and causal ambiguity. A bank's reputation can be assumed to have a high rate of tacit knowledge and intangibility (de Castro *et al.*, 2006). Scott and Walsham (2005) connect a dynamic view of reputation to the emergence of a knowledge society and to the spiral model of knowledge creation and management proposed by Nonaka (1994).

These views of a good reputation have several practical implications in terms of dynamic and operational capabilities (Zollo and Winter, 2002) within the banking industry. For instance, Chemmanur and Fulghieri (1994) consider a bank's reputation to be an incentive to implement more rigorous selection of creditworthy companies, thereby preserving banks from adverse selection. Moreover, a good reputation fuels the trust of third parties. Depositors and investors cannot directly observe how many resources a bank devotes to the quality assessment of a project or business. It is not easy to determine the standards adopted by banks before investing in a given company. Therefore, acting as external stakeholders (outsiders) as opposed to the bank's managers (insiders), investors and depositors can evaluate only ex-post the reliability of a bank through the quality and performance of the founded companies.

Although expensive in the short term, managers' interest in protecting a bank from reputational risk represents a means for greater long-term profitability and a lower probability of "marketing lemons" (Chemmanur and Fulghieri, 1994, p. 58). Bushman and Wittenberg-Moerman (2012) show that most reputable banks are associated with higher credit quality and greater profitability.

Citizenship performance fortifies relationships with external stakeholders (Brammer and Millington, 2005) and improves the image of an organization (Fombrun *et al.*, 2000; Yoon *et al.*, 2006; Margolis *et al.*, 2009; Deng and Xu, 2017). By acting as an additional driver of reputation and knowledge, effective citizenship performance may be considered a strategic tool that strengthens banking competitiveness in different ways. First, a bank's citizenship performance supports product innovation (Gallego-Alvarez *et al.*, 2011; Bocquet *et al.*, 2013; Costa *et al.*, 2015) and differentiation (Boehe and Cruz, 2010; Tang *et al.*, 2012). This is relevant from a knowledge perspective to the extent that the depth and breadth of knowledge searches influence new product introduction and routines (Katila and Ahuja, 2002). Such innovation leads to business models that are less price sensitive, with a stronger CSR brand for banks that approach socially responsible practices in a strategic manner (Brine *et al.*, 2007).

Second, by managing the money of third parties, banks must guarantee the trust of stakeholders through daily operations. Effective CK management related to citizenship performance may be a condition for building trust relationships with stakeholders that are aware of the benefits of a bank's CSR commitment (Kim, 2017). The expected impact is twofold, consisting of increased capacity for stakeholder influence (Barnett, 2007) and reduced transaction costs. According to Hawn and Ioannou (2016), the knowledge by external stakeholders of CSR efforts generates organizational legitimacy through the endorsement by outside audiences. The prevention of a gap of knowledge between external and internal actions allows to reflect the full value of CSR engagement in the market performance.

Third, citizenship performance enhances a bank's relational capital characterized by a significant component of tacit knowledge (Darroch, 2005). Effective KM helps to convert this knowledge into organizational capability to aligning a bank's operations with stakeholder expectations. From a resource-based view (Barney, 1991; Surroca *et al.*, 2010), the favorable response of external stakeholders to improved citizenship performance may lead to better reputation and innovation, which ultimately lead to better financial performance of the bank (Wu and Shen, 2013; Dell'Atti *et al.*, 2017; Forcadell and Aracil, 2017). Therefore, effective citizenship performance has different facets that may justify its contribution to a bank's competitiveness from a knowledge-based perspective. In particular, it:

- increases a bank's product innovation and differentiation;
- enhances service quality; and
- improves external stakeholders' positive beliefs about the benefits of a bank's CSR actions.

Hence, all these elements depict an effective citizenship performance as the conversion of CK underlying a bank's relational capital into operational and dynamic capabilities that are the ultimate source of competitive advantage (Teece *et al.*, 1997). Accordingly, we summarize the above discussion through the following hypothesis:

H2. Bank's citizenship performance positively affects its financial performance.

3. Methodology

3.1 Sample and data sourcing

The empirical analysis is based on data from a sample of European banks extracted from the Thomson Reuters dataset. To compose the sample, the study matched the list of 259 European banks reported by Reuters with the Worldscope database for financial indicators and the Asset4 database for CSR measures. As recognized by Thomson Reuters, Asset4 offers one of the most comprehensive databases in the industry, covering over 6,000 public companies across more than 400 different CSR metrics (https/financial.thomsonreuters.com).

Given the aim of the study, the analysis excluded banks for which Asset4 did not report CSR indicators during the study period (2009-2015). This sampling procedure yielded a final panel of 72 banks from 20 European countries (Table I).

Table I Sample distribution by country

Country of headquarters	*N*	*(%)*
North Europe	*22*	*0.31*
Denmark	3	0.04
Norway	1	0.01
Republic of Ireland	3	0.04
Sweden	4	0.06
UK	11	0.15
Western Europe	*14*	*0.19*
Austria	2	0.03
Belgium	2	0.03
France	4	0.06
Germany	2	0.03
The Netherlands	2	0.03
Switzerland	2	0.03
Eastern Europe	*13*	*0.18*
Czech Republic	1	0.01
Hungary	1	0.01
Poland	8	0.11
Russia	3	0.04
Southern Europe	*23*	*0.32*
Cyprus	1	0.01
Greece	4	0.06
Italy	10	0.14
Portugal	2	0.03
Spain	6	0.08
Total	72	1.00

3.2 Variable operationalization

This section explains the variables adopted in the empirical analysis of CSR measures (Section 3.2.1), bank financial performance (Section 3.2.2) and control variables (Section 3.2.3). Table II summarizes the variables and the sources of data.

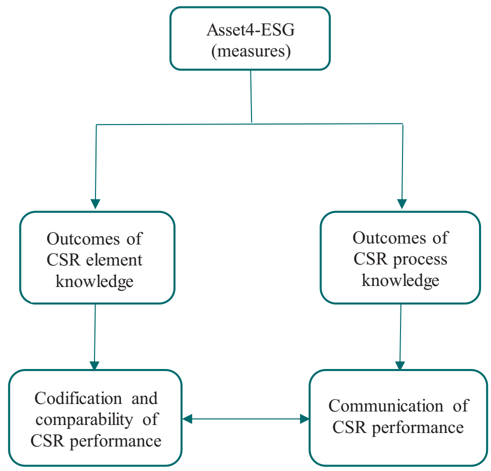
3.2.1 Corporate social responsibility measures. Given the conceptual framework of this study, the empirical analysis uses two separate measures, one for internal CSR and another for citizenship performance. For both measures, the source is Asset4, which is a database widely adopted in similar investigations (Cheng *et al.*, 2014; Luo, *et al.*, 2015; Ferrell *et al.*, 2016; Hawn and Ioannou, 2016). In particular, Asset4 provides information that is consistent with a knowledge-based perspective of CSR, as proposed by Preuss and Cordoba-Pachon (2009) (see Figure 2). Asset4 processes information disclosed by banks (communication of CSR performance) and then converts this information into standardized scores (comparability of CSR performance). Asset4 provides measures that can be assumed to be proxies for the interaction between the outcomes of the process view (stakeholder dialog) and the element view (knowledge codification) of CSR knowledge. As noted in previous studies (Ferrero-Ferrero *et al.*, 2015), Asset4 generates transparent, auditable and comparable information to evaluate corporate social performance. Relative to the inquiry of the current study, the use of Asset4 implies some aspects that should be considered critically. First, this data set provides static measures of CSR performance, both internal and external, whereas the accruing of CK may be a more dynamic phenomenon. Second, by reflecting the voluntary disclosure of banks, the scores provided by Asset4 are somewhat subjective in the assessment of CSR performance of banks. Nevertheless, in addition to the wide diffusion among scholars, the reliability of Asset4 is confirmed by the broad use of its systematic information by prominent investment houses that integrate nonfinancial data into their traditional investment evaluations (Cheng *et al.*, 2014). Moreover, Asset4 reflects a great experience as its history goes back to 2002 (https://financial.thomsonreuters.com).

For internal CSR, this work adopts a variable (I-CSR) that is the average of the scores Asset4 provides in relation to employees. It includes employment quality, training and development, diversity and equal opportunities and health and safety. For assessing banks'

Table II Description of variables

Variables	*Source*	*Symbol*	*Description*
CFP indicator 1	Worldscope	NII_TA	Net Interest Income divided by Total Assets
CFP indicator 2	Worldscope	IM_TA	Intermediation Margin (Net Interest Income + Non Interest Income) divided by Total Assets
CFP indicator 3	Worldscope	NPL_TL	Non-performing Loans divided by the Total Loans
CFP indicator 4	Worldscope	NPL_TE_5	Average of the last five years of Non-Performing Loans divided by Equity
Internal CSR	Asset4	I-CSR	The average of scores related to Employment quality, Training and Development, Diversity and opportunity, Health and Safety
Bank's citizenship performances	Asset4	E-CSR	The average of CSR scores including Community, Customers relations, Human rights and the Environment
Control variables			
Leverage	Worldscope	TotDeb_TotCap	Total Debt divided by Total Capital
Loan-To-Deposit Ratio	Worldscope	LoanDep	Total Loans divided by Total Deposits
Size	Worldscope	logEmployees	It represents the logarithm of the number of employees
Coverage	Worldscope	NPL_Reserve	Non-Performing Loans divided by Loan Loss Reserve
Free Float	Worldscope	F_float	The percentage of total shares in issue available to ordinary investors
Res	Barth *et al.* (2012)	Restriction	The degree of restriction on banking activities in securities, ranging from 1 (less restriction) to 4 (high restriction)
GDP per capita	The World Bank	GDPper	Gross Domestic Product based on current price/population
Growth of GDP	The World Bank	GDPgrowth	Gross Domestic Product per capita growth rate

Figure 2 Asset4-ESG measures from a knowledge-based framework



Source: Authors' elaboration based on the Preuss and Cordoba model (2009)

citizenship performance, this paper uses a variable (E-CSR) that is calculated as the average of scores provided by Asset4 for the CSR pillars that are different from relations with employees and encompass community relations, customer relations, human rights and the environment. Our variable is consistent with the concept of citizenship performance reported in the theoretical background of the current study. As specified by the Asset4 glossary, through the scores that we have included in E-CSR, we can measure a company's management commitment to and effectiveness in maintaining its reputation within the general community and the capacity to maintain its license to operate by being good citizen (https://financial.thomsonreuters.com).

3.2.2 Financial performance measures. To gauge banks' financial performance, this study adopts several measures. First, the analysis considers the ratio between net interest income (NII) and total assets to obtain a comparable measure of banks' efficiency (Knowles, 1999). Second, this study includes the ratio between the intermediation margin and total assets (IM_TA) to capture the effects of service diversification. Third, two variables are used to capture the efficiency of credit allocation, the ratio of NPL to total loans (NPL_TL) and the last five years of NPL divided by total equity (NPL_TE_5). The data source is Worldscope.

3.2.3 Control variables. Consistent with previous investigations (Harjoto and Jo, 2008; Jo and Harjoto, 2012; Wu and Shen, 2013), several variables were used to control for firm-specific factors, including the ratio of debt to total capital (Leverage), the loan-to-deposit ratio (Loan-To-Deposit), the ratio of loan loss reserves to NPL (Coverage), the logarithmic transformation of the number of employees (logEmployees) and the percentage of shares issued available to ordinary investors (Free float). Moreover, this study controlled for macroeconomic factors such as the gross domestic product (GDP) at the current price divided by the population (GDPper) and the growth rate of GDP per capita (GDPgrowth). In addition to country and year effects, the econometric models control for the impact of the regulatory environment (Res), considering the rules restricting banking activities in securities by country (Barth *et al.*, 2012).

3.3 Empirical strategy

The empirical analysis is consistent with the conceptual framework of the current study. For the causal relationship between internal CSR and banks' citizenship performance, a pooled ordinary least squares (OLS) analysis was conducted. After application of the Hausman test, a fixed effects regression analysis was conducted, allowing us to evaluate the impact of the independent variables on the dependent variable by controlling for unobserved variables. The fixed effect estimation can be expressed as follows:

$$y_{i,t} = \alpha + \beta \;\; I - CSR_{i,t-1} + \gamma X_{i,t} + \varepsilon_{i,t} \tag{1}$$

where y denotes the corporate citizenship indicator at time t, I-*CSR* represents the internal CSR measure at time $t - 1$, $X_{i,t}$ is the vector of firm-specific and macroeconomic control variables and ε represents the random error term.

The research results confirm the impact of citizenship performances (E-CSR) on banks' financial performance. Prior literature notes that studies on the relationship between social performance and financial performance may be biased by endogeneity (Jo and Harjoto, 2011 and 2012), but the OLS estimation procedure does not allow for managing endogeneity bias. Therefore, consistent with previous investigations (Jo and Harjoto, 2011 and 2012), this study adopts Heckman's two-stage estimation procedure (1976) to correct the specification for endogeneity. The following probit model was applied:

$$PR = [E - CSR\_0\_1_{i,t}|Z_{i,t;t-1}] = \Phi[B \;\; Z_{i,t;t-1}] \tag{2}$$

where E-$CSR\_0\_1_{it}$ is a dummy variable equal to one if firm i exhibits high levels of bank citizenship performance (above the median value of the panel) in year t and 0 if it exhibits low levels of corporate citizenship performance (under the median value of the panel). $Z_{i,t;t-1}$ is a vector of explanatory variables that includes the lagged I-CSR$_{t-1}$ and firm characteristics at time t. B is a vector of coefficients (at time t and $t-1$), and ε represents the random error term.

The estimates obtained from the probit model (decisional equation) were used to calculate the inverse Mills ratio (IMR), which was included as an additional explanatory variable in the following OLS estimation (performance equation):

$$y_{i,t} = \alpha + \beta \;\; E - CSR_{i,t} + \gamma IMR_{i,t} + \delta X_{i,t} + \varepsilon_{i,t} \tag{3}$$

where y denotes the financial performance indicators; E-*CSR* represents the bank's citizenship performance; *IMR* is the inverse Mills ratio; $X_{i,t}$ represents the control variables, both macro and firm specific; and ε is the random error term.

4. Results

Before commenting on the results of the inferential analysis, we must note some considerations regarding the correlation between the variables. Table III reports the Pearson's pairwise correlation matrix and variance inflation factor (VIF) of the independent variables used in the empirical analysis. The correlation coefficients are sufficiently lower than the conventional threshold of 0.7 (Ratner, 2009). Moreover, all the variables present an average VIF of 1.70, which is below the conventional threshold of 6, and the maximum VIF is 3.02, which is below the conventional threshold of 10 (McDonald and Moffitt, 1980). These results indicate that multicollinearity is not an issue in the estimates of this study.

Before conducting the panel data analysis, we developed tests to validate the model assumptions. We verified the homoskedasticity (Breausch–Pagan test) and normality of the

Table III Correlation matrix and VIF

N.	Variables	1	2	3	4	5	6	7	8	9	VIF
1	I-CSR t-1	1.000									1.71
2	TotDeb_TotCap	0.279	1.000								3.02
3	LoanDep	0.092	0.542	1.000							1.78
4	logEmployees	0.546	0.028	−0.207	1.000						1.7
5	NPL_Reserve	0.169	0.150	0.102	−0.039	1.000					1.12
6	F_float	0.259	0.299	0.007	0.177	0.166	1.000				1.29
7	Res	−0.303	−0.524	0.007	−0.286	−0.006	−0.358	1.000			1.83
8	GDPper	0.173	0.511	0.272	−0.075	0.002	0.232	−0.277	1.000		1.54
9	GDPgrowth	−0.127	−0.339	−0.130	−0.101	−0.149	−0.266	0.248	0.036	1.000	1.28

dependent variable (Shapiro-Wilk test). The test results were statistically significant, and Table IV displays the descriptive statistics related to the variables used.

With reference to the relationship between a bank's engagement in internal CSR and its citizenship performance, Table V reports the estimates of the pooled OLS (Model 1) and fixed effect (Model 2) models to provide evidence for *H1*. The probit analysis (Model 3) allows for estimation of the IMR, which was added to the performance equation to address endogeneity.

In Models 1 and 2, the corporate citizenship performance score (E-CSR) is the dependent variable, whereas in Model 3, the dependent variable (E-CSR_0_1) is a dummy variable that is 1 for banks with citizenship performance above the median and 0 otherwise. The primary independent variable is the I-CSR in year *t-1*, which measures the bank's CSR with respect to employees. The remaining independent variables represent the control for firm-specific characteristics and macroeconomic factors.

Both the OLS model and fixed effect model indicate that the lagged I-CSR has a significant positive impact on a bank's citizenship performances. The higher the internal CSR performance is at time *t-1*, the higher the bank's performance at time *t*. These findings support the first hypothesis (*H1*), thus confirming the positive effect of knowledge absorption through internal CSR on efforts directed towards other stakeholder categories. The probit model (3) also shows that banks with higher internal CSR performance are more likely to have better citizenship performance.

Table IV Descriptive statistics

Variable	Obs	Mean	Median	Std. Dev.	Min	Max
NII_TA	466	0.019	0.016	0.011	−0.002	0.071
IM_TA	466	0.035	0.031	0.018	−0.009	0.132
NPL_TL	424	0.080	0.054	0.093	0.000	0.641
NPL_TE_5	363	0.473	0.362	0.777	−3.640	5.083
I-CSR t-1	432	66.146	74.018	22.978	7.080	94.715
E-CSR	454	58.865	65.378	23.729	78.233	93.470
TotDeb_TotCap	480	75.762	80.960	17.529	0.000	107.550
LoanDep	464	1.501	1.332	0.747	0.569	7.405
logEmployees	475	9.721	9.800	1.507	5.537	12.709
NPL_Reserve	399	1.950	1.733	2.177	0.002	39.000
F_float	465	65.929	72.000	30.328	0.000	100.000
Res	455	1.323	1.000	0.705	1.000	3.000
GDPper	504	36,396.090	37,138.230	15,984.270	10,219.52	89,590.810
GDPgrowth	504	0.001	0.007	0.038	−0.321	0.256

Table V Propensity to engage in corporate citizenship performance

Variables	(1) *E-CSR*	(2) *E-CSR*	(3) *E-CSR_0_1*
I-CSR	0.663*** (−17.58)	0.314*** (−6.47)	0.0713*** (−6.33)
TotDeb_TotCap	0.0477 (−0.62)	−0.243** (−3.03)	0.00812 (−0.43)
LoanDep	0.0774 (−0.06)	1.022 (−0.67)	−0.191 (−0.53)
logEmployees	4.604*** (−6.25)	7.146*** (−3.76)	0.999** (−3.16)
GDPper	−0.000488 (−1.14)	0.000171 (−1.00)	−0.000246 (−1.67)
GDPgrowth	27.58 (−1.13)	9.994 (−0.76)	−6.506 (−1.10)
F_float	−0.0674* (−2.56)	−0.006 (−0.20)	−0.0224* (−2.32)
NPL_Reserve	−0.421 (−0.46)	0.752 (−0.91)	0.33 (−1.18)
Res	−0.947 (−0.16)		−1719 (−0.00)
Year	YES	NO	YES
Country	YES	NO	YES
Intercept	−2.968 (−0.14)	−25.06 (−1.15)	21.04 (0.00)
F	42.38***	10.27***	
LR χ^2			303.07***
Observations	330	364	289
N. Firms	72	72	72
R-squared	0.79	0.57	0.76

Notes: This table shows the coefficients of the estimates from the OLS model (Column 1), the fixed effect model (Column 2) and the probit model (Column 3), explaining the determining factors of CSR engagement. The dependent variable is represented by corporate citizenship performance (E-CSR). In the probit model, the dependent variable E-*CSR_0_1* is a dummy variable set to 1 if a firm exhibits a level of corporate citizenship performance above the median and 0 otherwise; *, ** and ***indicate statistical significance at the 10, 5 and 1% levels, respectively. *R*-squared means Adj *R*-Squared in Columns 1 and 2 and means Pseudo *R*-squared in Columns 3

With reference to the control variables, bank size (LogEmployees) is positive and statistically significant, suggesting that larger banks tend to have higher levels of citizenship performance. This result is consistent with prior literature that found a size gap with respect to CSR engagement (Graafland *et al.*, 2003; Lawrence *et al.*, 2006; Perrini and Russo, 2010).

Table VI Regression models based on the Heckman two-stage treatment effect model

Variables	(4) *NII_TA*	(5) *IM_TA*	(6) *NPL_TL*	(7) *NPL_TE_5*
E-CSR	0.0001*** (4.17)	0.0002** (2.74)	−0.00153** (−2.28)	−0.0328** (−3.24)
TotDeb_TotCap	−0.000092** (−2.12)	−0.00029** (−2.70)	−0.000441 (−0.60)	0.00667 (0.61)
LoanDep	0.00074 (1.38)	0.0023* (1.78)	−0.000447 (−0.50)	−0.378** (−2.91)
logEmployees	0.00308*** (9.45)	0.004*** (5.86)	−0.00890* (−1.64)	−0.129* (−1.67)
Res	−0.498** (−2.94)	−0.00925 (−1.82)	−0.00941 (−0.28)	0.00152 (0.00)
GDPper	0.00007** (3.00)	0.000001* (1.53)	−0.00434*** (−10.04)	−0.000001 (−0.14)
GDPgrowth	−0.315 (−0.46)	−0.0809* (−2.06)	0.118*** (4.53)	−6.967 (−1.86)
Year	YES	YES	YES	YES
Country	YES	YES	YES	YES
Inverse Mills Ratio	0.0024** (3.10)	0.00401* (1.92)	−3.239** (−2.30)	0.469* (2.48)
Intercept	−0.0574*** (−4.46)	−0.0594** (−1.85)	2.019*** (9.34)	5.246 (1.68)
Wald χ^2	2,484.06***	612.48***	921.25***	139.21***
Observations	330	330	330	312
N. Firms	72	72	72	72

Notes: This table presents two-step Heckman (1979) regression coefficients and in parentheses associated *t*-statistics. In the first step, the analysis runs the probit model with same specification as in Table IV. The inverse Mills ratio estimated from the first step of the regression is used in the second stage with the CSR indicator and control variables. The dependent variables in the second stage are NII_TA (Model 4), IM_TA (Model 5), NPL_TL (Model 6) and NPL_TE_5 (Model 7); *, ** and ***denote coefficient estimates that are significantly different from 0 at the 10, 5 and 1% levels, respectively. A significant Wald χ^2 illustrates that the models are significant and that the independent variables do affect the indicators of financial performance.

Regarding investigation of the second research hypothesis, Table VI presents the results of the performance equation, which estimates the impact of a bank's citizenship performance on its financial performance using Heckman's (1979) two-stage model. The dependent variables used are NII_TA (Model 4), IM_TA (Model 5), NPL_TL (Model 6) and NPL_TE_5 (Model 7). These measures of a bank's financial performance are a function of its citizenship performance (E-CSR), various firm-specific characteristics, macroeconomic factors country and the year dummy.

Regarding the effects of a bank's citizenship performance (E-CSR) on its financial performance, the results indicate that E-CSR has a positive and highly significant coefficient for NII_TA (t = 4.17) and IM_TA (t = 2.74). These results indicate that the higher the overall level of bank engagement in CSR activities directed toward the community, the human rights and the environment, the higher its financial performance in terms of the NII and intermediation margin. Furthermore, Models 6 and 7 show negative and highly significant coefficients for both the NPL_TL (t = −2.28) and NPL_TE_5 (t = −3.24), indicating that the higher the bank's citizenship performance is, the better its credit allocation. The findings support the hypothesis of a positive impact of citizenship performance on a bank's financial performance (*H2*). In accordance with the literature on bank reputation (Wu and Shen, 2013; Shen *et al.*, 2016), one of the resources most difficult to accumulate (de Castro *et al.*, 2006), banks that conduct more CSR activities outperform banks that are less engaged in CSR.

Several coefficients of the control variables are statistically significant. Both the NII_TA and IM_TA are negatively influenced by bank leverage (TotDeb_TotCap) and positively affected by bank size (logEmployees). Therefore, larger banks are associated with higher margins, whereas it is the reverse for more leveraged banks. In Models 6 and 7, both NPL_TL and NPL_TE_5 are significantly and negatively affected by bank size (logEmployees). Moreover, NPL_TE_5 is significantly and negatively affected by the loan-to-deposit ratio (LoanDep). Therefore, both larger banks and banks with a higher incidence of loans on funds raised from depositors are associated with more efficient credit allocation.

5. Discussion and implications

According to Tang *et al.* (2012), this study assumed that CSR is a process of accumulating knowledge that can be strategically managed by banks. In contrast to prior analyses (Wu and Shen, 2013; Esteban-Sanchez *et al.*, 2017), this work disentangled the performance of internal CSR, which is addressed to employees (Kim *et al.*, 2010), from citizenship performance (Peterson, 2004a), that addresses other CSR dimensions such as customer relations, the community, human rights and the environment. This distinction is useful in developing the inquiry of the current study.

Consistent with the synergistic linkage between internal CSR and KM (Preuss and Cordoba-Pachon, 2009; Lapina *et al.*, 2014), the empirical analysis indicates that internal CK is a driver of better citizenship performance. That is, the absorption of CSR knowledge through employee-facing initiatives represents a form of leverage for banks to enhance the design and implementation of CSR efforts that match the needs of other stakeholder categories. In particular, the findings of this study indicate that the better the internal social performance is, the better the citizenship performance of banks, thus confirming *H1*.

The second step of our empirical analysis shifted the focus on the impact of citizenship performance on a bank's financial performance. The conceptual premise is the linkage between citizenship performance and good corporate reputation (Brammer and Millington, 2005; Margolis *et al.*, 2009) and its positive effect on better financial performance (Bhattacharya and Sen, 2004; Surroca *et al.*, 2010). Good reputation is an intangible asset that has a significant tacit knowledge component (Darroch, 2005; Kim *et al.*, 2010). It is difficult to imitate, and its development follows a socially complex process involving the organization and stakeholders (Deephouse, 2000). Through effective citizenship performance, successful banks provide superior value to customers and are able to differentiate their products from competitors and improve their image within the community (Maignan *et al.*, 1999; Kim, 2017). The findings of the current study are consistent with these well-established assumptions. In particular, the results empirically highlight the positive impact of citizenship performance on a bank's competitive advantage, measured by several accounting-based indicators of financial performance, thus supporting *H2*.

The findings are robust and have several practical and theoretical implications. First, by creating a climate of trust, internal CSR may be seen as in incentive for sharing tacit knowledge among employees. Owing to a bank's commitment to internal CSR, employees are likely to identifies themselves with positive organizational values (Peterson, 2004a; Brammer *et al.*, 2007) that increase their willingness to share personal expertise and individual efforts to satisfy external stakeholder needs. Therefore, bank managers may invest in internal social performance because it benefits knowledge creation and effective citizenship performance.

Second, external CSR engagement is a tool to improve a bank's reputation. This intangible asset can be a source of competitive advantages (Wu and Shen, 2013). In particular, the most reputable banks attract more customers (savers and companies), and their business model may be less price sensitive than that of less reputable banks. Depositors may be more willing to accept lower remuneration in exchange for greater bank reliability. Companies may prefer to be financed by banks with the best reputations at higher costs, which are balanced by the benefits of better certification. Furthermore, better trust relationships with stakeholders may mitigate opportunistic behavior. Trust and knowledge sharing allow successful banks to exploit a combination of hard and soft information (codified or not) that lowers information asymmetry, thus improving the quality of service and the selection and monitoring standards of customers.

Third, greater attention of banks to their relations with external stakeholders benefits society. In particular, better citizenship performance means the development of better business ethics compliance and an orientation towards long-term profit. Socially responsible banks tend to care more for their relational capital by offering the most appropriate services and delivering products that meet the real needs of customers, with higher quality of information and advice. Banks that are more engaged in citizenship performance are more environmentally friendly, as reflected in the selection of more sustainable firms with lower environmental risk. Moreover, well-functioning banks support investments and sustain prosperity. Given the positive externalities, governments should support banks engaging in CSR activities with altruistic motives.

Finally, from a theoretical perspective, this study highlights the mutual linkages between CSR and KM by offering new insights to explain why meeting social demands does not limit competitiveness. The internal social capital and the tacit knowledge of relational capital are conceptual constructs that bridge KM and CSR. On the one hand, CSR offers additional opportunities to avoid the risk of lacking the ability to share knowledge and collaborate within the organization. As argued by Mårtensson (2000), the greatest challenge in KM is not a technical one but a cultural one. In this sense, CSR may play an important supporting function in terms of cultural identity and trust. On the other hand, KM encompasses the coordinating mechanisms to enhance conversion of the awareness of social responsibilities into organizational capabilities and, hence, into effective corporate citizenship. Therefore, KM provides the instruments to enhance CK creation, both explicit (codified) and implicit (uncodified), whereas CSR connects internal social capital to the sharing and use of tacit knowledge. These conceptualizations are meaningful for the advancement of both bodies of literature.

6. Conclusions

The deterioration of the banking system's reputation triggered by the subprime mortgage crisis and the growth of NPL are interconnected phenomena that call for increased attention to socially responsible banking business models. Reputational risk has increased the pressure on banks in terms of the capability to meet their social responsibilities. For knowledge-intensive companies such as banks, the "creation, accumulation, sharing, and integration of knowledge are the momentum for the creation of corporate value and sustainable operations" (Shih *et al.*, 2010, p. 75). In a context of fierce competition, successful banks rely on access to information and knowledge creation as their major resources of competitiveness. Nevertheless, the connections between KM, the strategic approach to internal and external CSR, and their impact on a bank's financial performance are relevant but rarely investigated topics (Wu and Shen, 2013; Esteban-Sanchez *et al.*, 2017). The current study aimed to fill this gap.

Relative to relationships within the CSR engagement strategy, timing is relevant. That is, internal CSR is a good entry point that improves the effectiveness of external CSR strategy. Drawing from a knowledge-based perspective, we explained this effect through the learning process and knowledge accumulation underlying internal CSR initiatives. A knowledge-based approach indicates the need for organizational members to recognize the values of the activities they are engaged in. Accrued knowledge is useful for the organization itself and for external stakeholders such as local communities or customers. Implicit CK exists in the form of people employed by the organization and is a form of leverage for more effective CSR programs directed toward other stakeholder categories. Moreover, as the reputation of the banking industry worsened during the financial crisis, citizenship performance has become more critical to enhance the image and brand differentiation of banks. This study demonstrates that managers can use this advantage to increase the intermediation margin and improve loan quality. Therefore, organizational arrangements to improve internal CSR and corporate citizenship performance may be justified also from the shareholders' perspectives because of the positive connections with financial results. The more a bank invests in CSR, the more it can benefit from internal and external trust relationships that may support knowledge sharing within and outside of the organization. The synergistic linkage between CSR and KM increases opportunities for knowledge creation and thus improves the competitiveness of banks.

6.1 Limitations and future lines of research

The current study is not without limitations. First, although we significantly extend the geographical area relative to that considered in prior investigations, our findings are limited to the European banking industry. This may condition the generalization of the results. Therefore, there is a need to replicate the study in different economic and cultural contexts.

Second, despite efforts to provide conceptualizations and measure of social performance (both internal and external), the study relies solely on the information provided by Asset4. This source is widely used in scientific studies, but future research could rely on multi-informant research design. In particular, by administering surveys to employees, customers and public stakeholders, researchers may better depict a bank's CSR engagement and obtain information on the perceptions of internal and external stakeholders.

Third, in relation to the capacity for knowledge absorption, the current study estimates the impact of internal CSR on citizenship performance as a whole. Future refinements could more thoroughly investigate the impact on the individual pillars of external CSR and, subsequently, their effects on financial performance.

Fourth, through questionnaires directly administered to bank managers, future research could investigate how different components of the knowledge conversion process (e.g. periodic brainstorming and internal conferences, information networking, community of practice, digital storage, skills management) impact social performance.

Overall, this research constitutes an attempt to understand internal and external CSR from a knowledge-based perspective within the banking industry. Our findings and the aforementioned limits should encourage further efforts investigating the synergistic linkage between CSR engagement and KM.

Notes

1. In 2014, the European Union issued directive n. 59, known as the BRRD (Bank Recovery and Resolution Directive), which extends the negative effects connected to the financial recovery of banks to the shareholders and bondholders and, in the worst cases, to depositors.
2. Internal CSR includes manifold activities involving employee welfare, such as nondiscrimination policies, open dialog between different organizational levels, equal and transparent career opportunities, training and development initiatives and a high-quality, safe workplace.
3. In this paper, the terms "social performance" and "CSR performance" are interchangeable and reflect the extent to which a company engages with CSR issues. According to Wood (1991), in terms of CSR principles, social performance can be defined as the processes of corporate social responsiveness and the outcomes of corporate behavior, including impacts, policies and programs.
4. Capabilities are organizational processes and routines rooted in knowledge. Prior literature distinguishes operational capabilities that are geared toward the operational functioning of a company from dynamic capabilities (Zollo and Winter, 2002; Helfat and Peteraf, 2003; Winter, 2003). The latter are dedicated to the modification of the former over time. Dynamic capabilities involve the ways in which firms develop new skills and routines that allow them to compete (Cepeda and Vera, 2007).
5. Prior studies highlight the positive impact of internal CSR on human resources management (Greening and Turban, 2000; Asrar-ul-Haq *et al.*, 2017; Celma-Benaiges *et al.*, 2016). Friedman (1970), while considering CSR engagement as an agency problem, recognized that CSR policies are effective to attract and retain more-skilled employees.
6. Banks manage CK through organizational solutions and coding processes (Yeung, 2011). Renewed banks and financial institutions, such as BNP-Paribas, Societe Generale and BOFA, have introduced specific management figures and committees within the organization to promote the dissemination and sharing of sustainability objectives and values.
7. Ninety-two financial institutions from 37 countries have adopted the Equator Principles and engage in yearly Equator Principles Financial Institutions (EPFIs) reporting (www.equator-principles.com).
8. Social capital is defined as the "connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them [...] that can improve the efficiency of society by facilitating co-ordinated actions" (Putnam, 1993, p. 167).
9. Jensen and Meckling (1992) analyze the transfer costs of knowledge and argue that the more specific the knowledge is, the more expensive its transfer. Limitations of human capital mean that storing, processing, transmitting and receiving knowledge are costly activities. They note that knowledge transfers are not instantaneous, as they require people and time.
10. Prior studies (Gangi and D'angelo, 2017) demonstrate that companies tend to design and implement CSR efforts toward employees in-house to gain strategic benefits related to the centrality and specificity of such initiatives.

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Appendix. List of abbreviations

CK = Corporate social responsibility knowledge;
CSR = Corporate social responsibility;
GDP = Gross domestic product;
KM = Knowledge management;
IMR = Inverse mills ratio; and
NPL = Nonperforming loans.

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