CORPORATE SOCIAL RESPONSIBILITY, EMPLOYER REPUTATION, AND SOCIAL MEDIA CAPABILITY: AN EMPIRICAL INVESTIGATION

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Research paper

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Abstract

This study theorizes that firms engaging in socially responsible activities are more likely to be perceived as a more attractive employer, and this positive relationship may be amplified if firms have proficiency in leveraging social media platforms. This potential amplifier role may be explained through the greater social visibility enabled by social media. The proposed theory is tested using the structural equation modeling technique and the partial least squares method of estimation employing a secondary dataset on a sample composed of 100 large Spanish firms included in the Actualidad Economica’s Great Place to Work 2015. The empirical analysis supports our theory. This paper contributes to Information Systems research by theorizing and empirically demonstrating that social media capability creates business value by maximizing the positive impact of firm’s implementation of corporate social responsibility activities on the building of firm’s employer reputation.

Keywords: Corporate social responsibility, employer reputation, social media, business value of IT, complementary resources.

1 Introduction

Corporate social responsibility (CSR) is of increasing importance across industries (Hsu 2012). Firms are executing CSR activities to achieve economic purposes, to generate wealth (Garriga and Mele, 2004; Saeidi et al., 2015), gaining competitiveness and responding to societal demands (Porter and Kramer, 2006; Smith 2003). Specifically, many firms implement CSR activities to build and improve their corporate reputation to attract customers (Lai et al., 2010; McWilliams et al., 2006) and be a focus for talented employees (Benitez et al., 2015; Bhattacharya et al., 2008; Turban and Greening, 1997).

Prior research has mainly focused on studying the relationship between CSR activities and brand equity, and between CSR activities and firm performance (Lee et al., 2012), and analyzing the effects of CSR activities on corporate reputation (e.g., Hsu, 2012; Lai et al., 2010; Stanaland et al., 2011). However, with a few exceptions (Dogl and Holtbrugge, 2014; Jones et al., 2014; Turban and Greening, 1997), research on the impact of CSR activities on employer reputation is very scarce. Turban and Greening (1997) demonstrate that corporate social performance influences corporate reputation and the firm’s attractiveness as employer. Dogl and Holtbrugge (2014) reveal that corporate environmental responsibility activities influence the firm’s environmental reputation as employer and employee commitment. Jones et al. (2014) find that job seekers perceive signals that affect organizational attractiveness. We do know that applicants give the same or more importance to the firm than to job position (Ng and Burke, 2005). CSR activities are a key personality trait of the
firm that improves employer’s attractiveness (Bhattacharya et al. 2008), and attract and retain talented employees (Perrini et al. 2011).

Firms are using social media to transform and execute business activities (Aral et al., 2013; Benitez et al., 2016; Braojos et al., 2015a). Firms can leverage external (e.g., Twitter) and internal social media to learn and absorb knowledge from the market (Argyris and Ransbotham, 2016; Kane, 2015), managing the relationships with potential and current customers and others stakeholders (Ku et al., 2013; Xu, 2016), and improving their online corporate reputation (Mandviwalla and Watson, 2014). Firms are also using social media to communicate their CSR efforts to enhance corporate reputation (Eberle et al., 2013).

The investigation of the role of social media on business activities (beyond marketing activities) is in its infancy (Ngai et al., 2015). Specifically, there only few papers that have studied the relationship between social media and CSR activities (i.e., one type of business activities) (e.g., Fieseler and Fleck, 2013; Lee et al., 2013). This body of research has been mainly focused on exploring the role of social media in communicating the firm’s CSR activities to the firm’s stakeholders. However, to the best of our knowledge, there is no prior research exploring the role of social media in the relationship between CSR activities and employer reputation. We try to shed light on this research gap.

Drawn from the organizational capabilities-based theory, this study focuses on social media capability, that is, the firm’s ability to use and leverage social media (e.g., Facebook, Twitter, and blogs) to execute the firm’s business activities (Benitez et al., 2016; Braojos et al., 2015a). The key research question that this study tries to answer is: Does social media capability amplify the effect of CSR activities on employer reputation? Our central proposition is that the positive effect of CSR activities on employer reputation may be amplified if the firm is capable to leverage its presence in social media.

The effectiveness of the firm’s communication of CSR activities through social media is not clear. Some studies suggest that CSR messages communicated through social media platforms have a minimal effect on followers because they only read a very small portion of the messages diffused in social media (Fieseler et al., 2010). However, some other scholars argue that social media are a key tool to diffuse CSR activities and influence stakeholders’ behavior and attitudes, and an efficient way through which message credibility and stakeholder’s identification feeling with the firm may increase (Eberle et al., 2013). Consistent with this second argument, we theorize that social media may be a positive complementary capability to convert the firm’s efforts CSR activities in greater employer reputation.

Thus, related work come to explain how CSR influences brand equity, firm performance, and corporate reputation (e.g., Hsu, 2012), however this work fails in explaining the relationship between CSR and employer reputation. Moreover, very few works relate social media and CSR activities, and those which try to introduce social media into CSR research are limited to explain the importance of social media platforms as a medium to disclose and discuss ethical, social, and environmental performance (e.g., Fieseler and Fleck, 2013), without going further into the mechanisms which articulate the relationship between these two concepts and their joint effect on employer reputation. We test our theory using the structural equation modeling (SEM) technique and the partial least squares (PLS) method of estimation with a secondary dataset on a sample of 100 large Spanish firms included in the Actualidad Economica’s Great Place to Work 2015 database. The empirical analysis supports our theory.

2 Theory and hypotheses

2.1 Theoretical base

We draw this research on the theoretical underpinnings of the resource-based theory, the organizational capabilities-based theory, the complementary resource perspective, the signaling theory, and social identity theory. The resource-based theory is one of the most popular theories in the field of Strategy, which it has been also used extensively in the Information Systems (IS) field (Chen et al., 2015;
According to the resource-based theory, firm’s resources explain the performance variation among firms (Amit and Schoemaker, 1993; Barney, 1986; Wernerfelt, 1984). Resources may be considered in a specific sense as assets (i.e., any tangible or intangible resource the firm possess to carry out its processes), and in a general sense, as both assets and capabilities (Benitez and Walczuch, 2012; Wade and Hulland, 2004). These firm’s resources can be classified in information technology (IT) and business (i.e., non-IT) resources (Benitez and Ray, 2012; Benitez and Walczuch, 2012; Nevo and Wade, 2010; Ravichandran and Lertwongsatien, 2005), which individually and/or in interaction may explain why and how some firms are more competitive than others. To create a temporary competitive advantage, resources must possess a set of attributes such as being valuable (i.e., allowing to implement strategies to enhance efficiency) (Barney, 1991), rare (i.e., not universally available) (Amit and Schoemaker, 1993), and with rent appropriable (i.e., controlling firm can appropriate the benefits generated by the resources) (Benitez and Walczuch, 2012). Additionally, resources need to be difficult to imitate, non-substitutable, and imperfectly mobile (i.e., they cannot be traded) to create a sustainable competitive advantage (Benitez and Walczuch, 2012). We use the resource-based theory to conceptualize CSR activities and employer reputation (two business resources), and to theoretically explain how CSR activities may influence employer reputation (Dogl and Holtbrugge, 2014; Hsu, 2012).

The organizational capabilities-theory is the developed version of the resource-based theory, where organizational capabilities refer to the firm’s ability to use and leverage IT resources (IT capabilities) and business resources (business capabilities) to pursue a superior firm performance (Anand et al., 2010; Pan et al., 2015; Teece et al., 1997). IT and business capabilities are thus the key exogenous variables of this theory in explaining the firm’s performance variation. We use the organizational capabilities-based theory to conceptualize social media capability (i.e., an IT capability) (Braojos et al., 2015b), the key capability of our proposed theory.

The complementary resource perspective is a theoretical framework that argues that the differential effect in explaining firm performance is the complementarity/interaction/interplay among the resources of the firm (it can also be extended to the organizational capabilities). Complementary refers to the mutually reinforcement between resources, where the existence of a resource allows other resources exert their value (Ennen and Richter, 2010). Thus, combinative, cumulative, or complementary resources/capabilities are individual resources/capabilities which reinforce and build on each other (Boyer and Lewis, 2002; Ferdows and DeMeyer, 1990; Flynn and Flynn, 2004; Kristal et al. 2010). These complementary relationships are potentially driver of firm performance, and the joint outcome may differ from the sum of the individual effects treated in isolation (Adegbesan, 2009; Bharadwaj et al., 2007; Ennen and Richter, 2010). The whole is more than the sum of its parts. Our central thesis is that the positive effect of CSR activities on employer reputation may be amplified if the firm is capable to also leverage its social media for business activities. In this sense, we use the complementary resource perspective to theoretically explain that reinforcement between CSR activities and social media capability to explain employer reputation variation.

Signaling theory seeks to explain how individuals use signals to reduce the uncertainty associated with making a decision or undertaking actions in an environment of asymmetric information (Connelly et al., 2011). Signaling often occurs in competitive environments where firms compete for resources such as talented employees (Dogl and Holtbrugge, 2014). The social identity theory is concerned with how individuals identify themselves with a particular social group and act to favor this group, classifying themselves and others into several social categories, such as organizational membership, religious affiliation, gender, and age cohort (Ashforth and Mael, 1989). We use signaling theory and social identity theory to explain how social media capability may amplify the positive relationship between CSR activities and employer reputation.
2.2 CSR activities and employer reputation

CSR activities refer to firm’s activities related to and directed to meet its perceived societal or stakeholder obligations (Brown and Dacin, 1997; Luo and Bhattacharya, 2006; Varadarajan and Menon, 1988). Specifically, CSR are voluntary activities directed to meet the economic, social, environmental (Lai et al., 2010), legal, ethical, and even philanthropic purposes of the firm (Carroll, 1979; Pirsch et al., 2007; Shum and Yam, 2011). CSR activities are a mean to build their identity, and the way firms desire to be seen by their internal and external stakeholders (Bravo et al., 2011; Martinez et al., 2014). For instance, although Wal-Mart was named by Fortune as the "most admired company in America" in 2003 and 2004, its reputation was being damaged due to the low score given to the ethic dimension. Wal-Mart instituted a nonmarket strategy based on CSR activities to counter this criticism, employing a combination of complementary social, political, and legal components to manage an environment that could threaten its future growth and financial success (Hemphill, 2005).

Employer reputation refers to the firm’s image as employer from the point of view of potential applicants or job seekers. It refers to the reputation of the employer to be considered one of the best places to work. In general, employer reputation is a set of signals the firm transmits to its stakeholders in order to position the firm as an employer in its competitive market (Riordan et al., 1997). Employer reputation is therefore the result of the stakeholder perceptions about a range of human resource management practices such as talent management, payment and compensation, work environment and workplace conditions, and social policies (Benitez et al., 2015). Firms are aware that they must strengthen its image as employers due to the existence of a huge competition in the market to attract the more talented employees. For example, BBVA (i.e., a leading bank in Spain) has been awarded as the best firm to work in Spain by Actualidad Economica’s Great Place to Work 2015, which will enable BBVA to attract the best and more talented employees in the short and middle term (Lander and Belloso, 2015; Oleo, 2015).

We expect a positive relationship between CSR activities and employer reputation, so that firms engaging in socially responsible activities are more likely to be perceived as a more attractive employer. Draw on the resource-based theory, CSR activities are one type of business resource that possess several positive attributes that may lead to build a better employer reputation (i.e., another business resource that may affect competitive advantage). CSR activities are a valuable resource since it allows the firm to implement strategies in order to improve the efficiency of the operations (Barney, 1991; Benitez and Walczuch, 2012). For example, the firm’s environmental sustainability activities (i.e., one component of the CSR activities) improve the efficiency of resource use (Wang et al., 2015). CSR activities are also a valuable resource because help the firm to exploit opportunities and neutralize threats in the firm’s environment by building a better employer reputation (Wade and Hulland, 2004). CSR activities can be also considered an appriopiable resource because the benefits obtained from the socially responsible activities carried out by the firm may be directly owned by the firm.

Firm’s social activities serve as a signal of working conditions of the firm (Turban and Greening, 1997). This is drawn on the signaling theory, which suggests that applicants and current employees usually have incomplete information about a firm, so the only way of knowing and evaluate a firm is interpreting signals the firm transmits to the market about its working conditions (Spence, 1974). CSR activities are signals about the firm’s prestige, core values, and prosocial orientation, which may reflect something that job seekers and current employees value and desire from their workplace. Firm’s prestige signal makes potential applicants to feel proud about being a member of a prestigious organization that is engaged in socially responsible activities (Jones et al., 2014). The specific core values’ promotion signal makes potential applicants believe that they are going to work in a firm that shares the values they deem important (Chatman, 1989). This is called the firm-person fit, often defined as the congruence between organizational values and individual values, which is in fact what individuals want in a firm (Ng and Burke, 2005). For example, Ng and Burke (2005) demonstrated that women and minorities found firms with diversity management practices more attractive to work for. Lastly,
the promotion of prosocial orientation signal involves that the potential workforce expects a fair treatment by the firm due to its prosocial efforts showed in its social policies (Aguilera et al., 2007).

Drawing on the social identity theory, people tend to classify themselves into various social categories by considering several factors such as the firm they work for. In this sense, the employee’s self-concept, self-esteem, and personal prominence may be influenced by the membership in a firm (Ashforth and Mael, 1989), and by the activities executed by the firm (Turban and Greening, 1997). Socially responsible employee’s self-concept and self-esteem may be improved by the firm’s implementation of socially responsible activities (Williamson et al., 2010), which in turn may enhance the employee’s word-of-mouth to increase the employer reputation of the firm (Dogl and Holtbrugge, 2014). It is rational to think that people would like to work in a firm engaged in socially responsible activities that contribute to the welfare of the society than in others that do not carry out these types of activities. We can also observe that in most of the employer branding rankings, CSR activities are a key ingredient to shape and cause employer reputation (e.g., Actualidad Economica’s Great Place to Work). Therefore, we hypothesize that:

Hypothesis 1 (H1): There is a positive relationship between CSR activities and employer reputation

2.3 The amplifier role of social media capability in the relationship between CSR activities and employer reputation

Social media capability refers to the firm’s ability in using and leveraging social media (e.g., Facebook, Twitter, and corporate blogs) to execute the firm’s business activities (Benitez et al., 2016; Braojos et al., 2015a).

We argue that social media capability may perform an amplifier role in the relationship between CSR activities and employer reputation, that is, in presence of social media capability, the relationship between CSR activities and employer reputation may be stronger. This proposition can be explained through several arguments. CSR activities and social media capability are two resources/capabilities that may mutually reinforce (Ennen and Richter, 2010). The firm’s usage, presence, and leveraging of social media allow the firm to give more social visibility to their CSR activities to build a stronger employer branding, thus maximizing the business value from CSR activities. The whole (CSR activities * Social media capability) is more than the sum of its parts (CSR activities and social media capability individually). For instance, Grupo Santander (a global leading bank) has a specific Facebook profile called Santander Universidades España where it is published a great deal of job offers, scholarships, and financial products for university students. This kind of communication towards a specific sector can have a far-reaching impact on its employer reputation.

Applicants and current employees usually have incomplete information about a firm, so to know and evaluate a firm they interpret signals the firm transmits about its working conditions (e.g., Turban and Greening, 1997). The impact of these transmitted signals on employer reputation will increase when firm interacts in social media to communicate these signals (Balaji et al., 2016). Social media are a key communication tool to influence stakeholders (e.g., employees’) attitudes and opinions (Oh et al., forthcoming). Perceived interactivity on social media leads to a reinforcement on behaviors towards firms, and a higher credibility of these messages because firms expose these messages to criticism leading to a greater impression of trust (Eberle et al., 2013). Specifically, applicants may feel proud about being member of a prestigious firm that is engaged in socially responsible activities (Jones et al., 2014), and this identification feeling may be higher when a firm uses interactive CSR communication such as carried out in social media, since applicants can engage in a dialogue feeling more embedded (Eberle et al., 2013), and thus people may prefer firms which they feel more identified with (Bhattacharya and Sen, 2003). Furthermore, the use of social media for CSR issues boosts communication among stakeholders creating a stronger sense of community around the common core values (Korschun and Du, 2013), making potential applicants more strongly believe that they are going to work in a firm that shares its core values (Chatman, 1989; Jones et al., 2014). Therefore, we expect that CSR activities and social media capability dance together to improve employer reputation.
Hypothesis 2 (H2): Social media capability positively amplifies the relationship between CSR activities and employer reputation.

Figure 1. Conceptual model (CV = Control variable).

3 Research methodology

3.1 Sample
We empirically test the proposed theory with a sample of the 100 firms included in the Actualidad Económica’s Great Place to Work 2015 database. Actualidad Económica (http://www.actualidadeconomica.com/) is a top business magazine that annually designs, publishes, and sells several databases including information about sales, innovation effort, employer brand value, and executive compensation for the most admired firms in Spain (Benitez et al., 2013). These databases have been used in prior IS research (Benitez and Walczuch, 2012). The Actualidad Económica’s Great Place to Work 2015 database (in short, the Actualidad Económica’s database) includes the 100 best places to work in Spain in 2015 based on a fine-grained examination conducted by independent human resource experts and consultants. The examination is based on a survey and multiple interviews on which compensation, talent management, work environment, training, and employee’s opinion are measured and evaluated for each firm. We use all the firms included on this database. The firms of the sample come from 19 different industries: food (14, 14%), IT (14, 14%), insurance (12, 12%), consulting (11, 11%), energy (9, 9%), finance (9, 9%), pharmaceutical (6, 6%), tourism and transport (5, 5%), and others (composed by 11 industries) (20, 20%). All the firms included in the sample have more than 100 employees, and have operated for at least five years in Spain. Our sample selection is rational since prior IS research has focused on samples of firms included in well-known rankings as this one used in this study (e.g., Benitez and Walczuch, 2012; Benitez et al., 2015; Bharadwaj, 2000; Braojos et al., 2015a; Joshi et al., 2010). On average, the firms of the sample have 84,164 employees (standard deviation (S.D.) = 111,768.020).

3.2 Data and measures
The dataset used to measure the constructs of the proposed model was collected from 11 different databases. We first gathered the data from the Actualidad Económica’s database and with the name of each firm we collected the information from the other databases.
3.2.1 CSR activities

The CSR activities construct is measured through the natural logarithm of the firm’s score of CSR activities, with information collected from the Monitor Empresarial de Reputacion Corporativa (MERCO) database (http://www.merco.info/es/) in 2014. MERCO is one of the most well-known tools around the world to evaluate the reputation of firms of Spain and Latin America based on a multi-stakeholder methodology composed of five evaluations and twelve information sources. This database includes a score of CSR activities ranged from 1 to 10,000 based on a careful examination of the firm’s CSR activities (e.g., ethics programs, transparency, firm’s responsibility with employees, environmental management activities) conducted by a large number of stakeholders of the firm (e.g., financial analysts, social media executives, society) (mean = 8.519, S.D. = 0.322).

3.2.2 Employer reputation

Employer reputation is the key endogenous variable of the proposed model which is a single measure construct measured through the firm’s score of employer reputation, with information collected from the Actualidad Economica’s database in 2015. Because the effect of CSR activities on employer reputation may require of time, the measure for CSR activities is lagged one year. The Actualidad Economica’s database includes the 100 best places to work in Spain in 2015 based on a fine-grained examination of the overall employer reputation for each firm. The database contains a firm’s score of employer reputation that ranges from 0 to 1,000, which is determined by examining the compensation, talent management, work environment, training, and employee’s opinion. The firm’s score of employer reputation of our sample ranges from 662 to 865 (mean = 6.609, S.D. = 0.059).

3.2.3 Social media capability

Social media capability is operationalized as a second-order construct determined by three dimensions: Facebook capability, Twitter capability, and blog capability (Braojos et al., 2015a; Culnan et al., 2010) with data collected in August-September 2015. Social media capability is specified as composite at first- and second-order level (Henseler et al., 2016) The social media platforms used for this study are the most popular social media sites used by firms (Culnan et al., 2010).

We evaluate social media capability based on the Braojos et al.’s (2015a, 2015b) measure scheme. We measure Facebook capability as a composite first-order construct through the number of past or future events (mean = 12.750, S.D. = 39.873), experience (mean = 50.036, S.D. = 19.027), and updates (mean = 4.409, S.D. = 1.048) with data collected from the Facebook site of the firm. We measure firm’s experience on Facebook as the average number of months that the firm operated in Facebook. Updates is measured by scoring with 1: Low or 5: High degree of content updating in this platform. We scored with 1/2/3/4/5 when the firm had made a comment on Facebook more than one month ago/in the last month/two weeks ago/in the last week/in the last two days respectively.

We measure Twitter capability as a composite first-order construct through spent time writing tweets (mean = 89.644, S.D. = 202.762), experience (mean = 58.263, S.D. = 17.315), and updates (mean = 4.703, S.D. = 0.752) with information collected from Twitter site of the firm and Twopcharts database (http://twopcharts.com/). The spent time writing tweets is evaluated as the average hours that firm has spent writing tweets. The experience and updates are measured on a similar way as Facebook (Braojos et al. 2015a, 2015b). Blog capability is a composite first-order construct determined by experience (mean = 38.395, S.D. = 25.972) and updates (mean = 3.395, S.D. = 1.605) of the firm on its corporate blogs (Braojos et al. 2015a, 2015b). Blog experience and updates are assessed following the same process as Facebook and Twitter, with the data collected from blog site(s) of the firm.

3.2.4 Control variables

We control for firm size, industry, firm age, and advertising spending on employer reputation. Employer reputation can be dependent of the firm size because larger firms may have more financial re-
sources to invest in employer reputation activities (Fombrun and Shanley, 1990). In addition, as larger firms usually are more well-known, their practices usually have a higher impact and a faster spreading in the society. Then, when larger firms carry out best-in-class human resource management practices, the impact on their employer reputation is likely to be higher. Thus, we control for firm size on employer reputation. We measure firm size (mean = 10.669, S.D. = 1.302) as the natural logarithm of number of employees per firm with information collected in 2015 from COMPUSTAT database (Benitez and Walczuch, 2012; Braojos et al., 2015b).

We also control for industry (mean = 0.630, S.D. = 0.485) on employer reputation. Industry is measured through a dummy variable (0: Manufacturing firm, 1: Service firm), with data gathered from the website of the firm (Braojos et al., 2015b).

We control for firm age on employer reputation because older firms may have more experience in designing, executing, and leveraging human resource management practices to build a better employer reputation than younger firms, because time and experience may be critical in building trust and reliability among firms and environment (Rhee and Valdez, 2009; Wang et al., 2016). Firm age (mean = 3.682, S.D. = 0.730) is measured as the natural logarithm of the number of years the firm had operated on its industry in 2015 (Wang et al., 2015) with data collected from SABI (https://sabi.bvdinfo.com/) database, which is a well-known database with abundant financial information for Spanish and Portuguese firms.

It is rational to think that firms that spent more money on advertising may improve its employer reputation through a better brand image and corporate reputation. We thus control for advertising spending on employer reputation. We measure advertising spending (mean = 0.384, S.D. = 0.690) through the advertising expenditure per employee in 2014, with information collected from SABI and COMPUSTAT databases.

4 Empirical analysis and results

To test the proposed model, we use the variance-based SEM technique and the method of estimation of PLS (Benitez et al., 2013; Chin, 2010; Marcoulides et al., 2009). We use the statistical software package ADANCO 2.0 Professional (http://www.composite-modeling.com) (Henseler and Dijkstra, 2015). It is appropriate to use PLS in this research for six main reasons. First, PLS is a full-fledged SEM approach that can test for exact model fit and works very well in both confirmatory and explanatory research (Chin, 2010; Hair et al., 2012; Henseler et al., 2016). Second, since all constructs are specified as composite, PLS represents an optimal method that produces consistent estimations of composite models (Gefen et al., 2011; Henseler et al., 2014; Rigdon et al., 2014). Third, compared with alternative covariance-based SEM techniques, PLS achieves better results when estimating complex models (e.g., Ajamieh et al., 2016). Fourth, PLS performs component-based SEM, which does not require that data follow a multivariate normal distribution (Chin et al., 2003). Fifth, the use of PLS is also advisable to estimate models that employ secondary data, like our model (Ajamieh et al., 2016; Benitez and Ray, 2012; Benitez et al., 2015; Gefen et al., 2011; Ringle et al., 2012). Finally, PLS is a well-known method and has been largely used in the fields of IS (Benitez et al., 2015; Braojos et al., 2015a, 2015b; Chen et al., 2015; Chou et al., 2015). To estimate the significance levels of weights, loadings, and path coefficients, this research runs the bootstrapping algorithm with 5000 subsamples (Barroso et al., 2010; Hair et al., 2011; Petter et al., 2007).

4.1 Measurement model evaluation

We evaluate the measurement properties of the constructs included in the proposed model. To do that, we assess content validity, multicollinearity, weights, and loadings and their level of significance (Ajamieh et al., 2016; Benitez and Ray, 2012; Braojos et al., 2015a; Petter et al., 2007). Prior to the data collection, we check the content validity of all the constructs included in our study by using measures previously validated in prior studies (Pavlou and El Sawy, 2006; Wang et al., 2015). After
that, we perform a confirmatory composite analysis and check for multicollinearity, weights, loadings, their level of significance, and whether our structure of composite measures has a good model fit (Henseler and Dijkstra, 2015; Henseler et al., 2014). We ensure that our data do not suffer of multicollinearity by calculating the variance inflation factors (VIF) at both first- and second-order levels. The first-order VIFs range from 1.052 to 2.300, and the second-order VIFs range from 1.130 to 1.526. All these values are well lower the accepted threshold of 10 (Petter et al., 2007), suggesting that multicollinearity is not a problem in our data (Benitez and Ray, 2012).

Based on the Cenfetelli and Bassellier’s (2009) strategy to validate composite constructs, we check the level of significance of indicator/dimension weights and loadings. All indicator weights (from 0.315*** to 0.579**) and indicators loadings (from 0.278** to 0.935**) are significant, with the exception of the weight of one indicator of Facebook capability (the number of events in Facebook: 0.079). This composite indicator is retained because although its weight is not significant, its loading is (0.278**) (Cenfetelli and Bassellier, 2009). All dimension weights (from 0.294* to 0.687***) and dimension loadings (from 0.619*** to 0.847***) are also significant, which suggests that our constructs have very good measurement properties.

We also check whether the structure of composite measures at first- and second-order levels makes empirical sense in terms of model fit. To do that, we evaluate the discrepancy between the empirical correlation matrix and the model-implied correlation matrix at first- and second-order levels (Benitez and Ray, 2012; Henseler, 2015). This analysis checks the adequacy of the composite structure detecting possible model misspecification such as wrong assignments of indicators to constructs, or wrong numbers of constructs (Henseler et al., 2014). We evaluate the standardized root mean squared residual (SRMR), unweighted least squares distance ($d_{ULS}$), and geodesic distance ($d_G$) (Henseler et al., 2016). Table 1 presents the results of the confirmatory composite analysis for the model at first- and second-order level. The lower the SRMR is the better the fit between the proposed measurement model and the data (Henseler and Dijkstra, 2015). Overall, it is advisable that SRMR value to be lower than 0.080 (Henseler et al., 2014), and the $d_{ULS}$ and $d_G$ (i.e., discrepancies) to be also lower than the 95%-quantile of the bootstrap discrepancies (Henseler et al., 2016) to accept the fit between the proposed measurement model and the data. SRMR value is 0.044 for the first-order constructs, and 0.038 for the second-order construct, meeting the suggested threshold of being below 0.080 (Henseler et al., 2014), and both $d_{ULS}$ and $d_G$ are lower than the 95%-quantile of the bootstrap discrepancies (Henseler et al., 2016), which suggest that there is empirical support for the structure of composites, and overall the proposed model presents good measurement properties. Then, we can proceed with the evaluation of the structural model.

<table>
<thead>
<tr>
<th>Discrepancy</th>
<th>First-order constructs</th>
<th>Second-order construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.044</td>
<td>0.038</td>
</tr>
<tr>
<td>$d_{ULS}$</td>
<td>0.106</td>
<td>0.014</td>
</tr>
<tr>
<td>$d_G$</td>
<td>0.068</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Table 1. Results of the confirmatory composite analysis.

### 4.2 Structural model evaluation

To evaluate the structural model, we assess the beta coefficients and its level of significance, running a bootstrap analysis with 5000 subsamples. The effect size ($f^2$), and $R^2$ values of the proposed relationships are also evaluated (Henseler et al., 2016). We consider three models under study. To test the relationship between CSR activities and employer reputation (i.e., H1), we evaluate a baseline model which describes the direct effect from CSR activities to employer reputation including all control variables, and excluding social media capability (i.e., the moderator variable). Model 1 adds social media
capability to the baseline model, and model 2 adds the interaction terms to the model 1 to test the potential moderator role of social media capability in the relationship between CSR activities and employer reputation (i.e., H2). The empirical analysis supports H1 suggesting that CSR activities enables employer reputation ($\beta = 0.348, p_{one-tailed} < 0.001$). We also find some support for H2 suggesting that this relationship is amplified when firm has the ability to leverage social media for business purposes ($\beta = 0.131, p_{one-tailed} < 0.10$). The $f^2$ values of the key relationships of the proposed model are 0.147 for baseline model, 0.100 for model 1, and 0.088 for model 2, and the $R^2$ value for employer reputation is 0.207 for the baseline model, 0.222 for model 1, and 0.238 for model 2. Overall, the proposed model presents good structural results and the three models has a very good model fit, which suggest that the proposed theory is capable to explain how part of the corporate world (i.e., employer reputation) functions (Table 2).

<table>
<thead>
<tr>
<th>Beta coefficient</th>
<th>Baseline model</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR activities $\rightarrow$ Employer reputation (H1)</td>
<td>0.348*</td>
<td>0.302*</td>
<td>0.283**</td>
</tr>
<tr>
<td>CSR activities $\times$ Social media capability $\rightarrow$ Employer reputation (H2)</td>
<td></td>
<td>0.131†</td>
<td></td>
</tr>
<tr>
<td>Social media capability $\rightarrow$ Employer reputation</td>
<td>0.137</td>
<td>0.119</td>
<td></td>
</tr>
<tr>
<td>Firm size $\rightarrow$ Employer reputation (control variable)</td>
<td>0.010</td>
<td>0.020</td>
<td>0.024</td>
</tr>
<tr>
<td>Industry $\rightarrow$ Employer reputation (control variable)</td>
<td>0.022</td>
<td>0.009</td>
<td>-0.008</td>
</tr>
<tr>
<td>Firm age $\rightarrow$ Employer reputation (control variable)</td>
<td>0.159*</td>
<td>0.172*</td>
<td>0.169*</td>
</tr>
<tr>
<td>Advertising spending $\rightarrow$ Employer reputation (control variable)</td>
<td>0.168*</td>
<td>0.147*</td>
<td>0.134*</td>
</tr>
<tr>
<td>$R^2$ employer reputation</td>
<td>0.207</td>
<td>0.222</td>
<td>0.238</td>
</tr>
</tbody>
</table>

| Value SRMR | 0.000 | 0.048 | 0.072 |
| HI95 SRMR | 0.000 | 0.108 | 0.133 |
| Value $d_{ULS}$ | 0.000 | 0.105 | 0.409 |
| HI95 $d_{ULS}$ | 0.000 | 0.526 | 1.383 |
| Value $d_{U}$ | 0.000 | 0.036 | 0.093 |
| HI95 $d_{U}$ | 0.000 | 0.207 | 0.482 |

| $f^2$ | 0.147 | 0.100 | 0.088 |
| CSR activities $\rightarrow$ Employer reputation (H1) | | 0.020 | 0.015 |
| CSR activities $\times$ Social media capability $\rightarrow$ Employer reputation (H2) | | | |
| Social media capability $\rightarrow$ Employer reputation | | | |
| Firm size $\rightarrow$ Employer reputation (control variable) | 0.000 | 0.000 | 0.001 |
| Industry $\rightarrow$ Employer reputation (control variable) | 0.001 | 0.000 | 0.000 |
| Firm age $\rightarrow$ Employer reputation (control variable) | 0.028 | 0.034 | 0.033 |
| Advertising spending $\rightarrow$ Employer reputation (control variable) | 0.032 | 0.024 | 0.020 |

Table 2. Results of the structural analysis. Note: †$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$ (one-tailed test)

4.3 Multi-group analysis: Firms with low social media capability vs. firms with high social media capability

Since H2 is only supported at 0.10 level, we perform an additional multi-group analysis to re-examine whether there are statistically significant differences between firms with low development of social media capability and firms with high development of social media capability. To split the sample into two groups (i.e., firms with low social media capability and firms with high social media capability), we calculate the mean value of the latent variable score of social media capability as benchmark.
Firms with lower value than this mean value belong to the low social media capability group, while firms with higher value than this mean value belong to the high social media capability group. This analysis suggests that these differences are statistically significant (Table 3), which suggests that the positive influence of CSR activities on employer reputation only occurs when the firm has a high social media capability. For firms with low social media capability, the effect of CSR on employer reputation is not significant. This analysis gives support to H2.

### 4.4 Post-hoc comparative analysis: Social media vs. advertising spending

Drawn from the Mithas et al.’s (2012) work, we perform a post-hoc analysis comparing the amplifier role of social media capability (model 2) and the potential moderating role of advertising spending (advertising spending model of Table 4) in the relationship between CSR activities and employer reputation. This analysis enables us to compare the role of new communication media (i.e., social media) with traditional media (i.e., advertising). Model 2 controls for advertising spending on employer reputation. Advertising spending model controls for social media capability on employer reputation. The beta coefficient of the interaction term CSR * Advertising spending is 0.018 and its $f^2$ is 0.000, which indicates that advertising spending does not amplify the effect of CSR activities on employer reputation. Differently, as we theorize in this paper, social media capability amplifies this relationship.

#### Table 3. Multi-group analysis.

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Firms with low social media capability (n = 56)</th>
<th>Firms with high social media capability (n = 44)</th>
<th>Is the difference in the beta coefficient statistically significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR activities → Employer reputation (H1)</td>
<td>0.017</td>
<td>0.451***</td>
<td>Yes (p &lt; 0.05)</td>
</tr>
<tr>
<td>Firm size → Employer reputation (CV)</td>
<td>0.181†</td>
<td>-0.121</td>
<td>Yes (p &lt; 0.1)</td>
</tr>
<tr>
<td>Industry → Employer reputation (CV)</td>
<td>-0.195†</td>
<td>0.156</td>
<td>Yes (p &lt; 0.05)</td>
</tr>
<tr>
<td>Firm age → Employer reputation (CV)</td>
<td>0.235*</td>
<td>0.103</td>
<td>Yes (p &lt; 0.05)</td>
</tr>
<tr>
<td>Advertising spending → Employer reputation (CV)</td>
<td>-0.078</td>
<td>0.297*</td>
<td>No (not significant)</td>
</tr>
</tbody>
</table>

#### Table 4. Post-hoc comparative analysis.

<table>
<thead>
<tr>
<th>Beta coefficient</th>
<th>Model 2</th>
<th>Advertising spending model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR activities → Employer reputation (H1)</td>
<td>0.285**</td>
<td>0.303**</td>
</tr>
<tr>
<td>CSR activities * Social media capability → Employer reputation (H2)</td>
<td>0.131†</td>
<td></td>
</tr>
<tr>
<td>Social media capability → Employer reputation</td>
<td>0.119</td>
<td>0.137</td>
</tr>
<tr>
<td>Firm size → Employer reputation (control variable)</td>
<td>0.024</td>
<td>0.021</td>
</tr>
<tr>
<td>Industry → Employer reputation (control variable)</td>
<td>-0.008</td>
<td>0.008</td>
</tr>
<tr>
<td>Firm age → Employer reputation (control variable)</td>
<td>0.169</td>
<td>0.172</td>
</tr>
<tr>
<td>Advertising spending → Employer reputation (control variable)</td>
<td>0.134*</td>
<td>0.133</td>
</tr>
<tr>
<td>R² employer reputation</td>
<td>0.238</td>
<td>0.222</td>
</tr>
<tr>
<td>$f^2$ interaction effect</td>
<td>0.020</td>
<td>0.000</td>
</tr>
<tr>
<td>Value SRMR</td>
<td>0.072</td>
<td>0.045</td>
</tr>
<tr>
<td>HI95 SRMR</td>
<td>0.133</td>
<td>0.107</td>
</tr>
<tr>
<td>Value $d_{ULS}$</td>
<td>0.409</td>
<td>0.113</td>
</tr>
<tr>
<td>HI95 $d_{ULS}$</td>
<td>1.383</td>
<td>0.630</td>
</tr>
<tr>
<td>Value $d_{G}$</td>
<td>0.093</td>
<td>0.047</td>
</tr>
<tr>
<td>HI95 $d_{G}$</td>
<td>0.482</td>
<td>1.277</td>
</tr>
</tbody>
</table>
5 Discussion and conclusions

Related works have failed to explain the relationship between CSR and employer reputation. These studies have been limited to understand how CSR impact other traditional measures of performance (e.g., brand equity, firm performance, and corporate reputation). Moreover, no work has tried to explain the introduction of social media capability into this relationship. Thus, differently to prior research, this study examines the impact of CSR activities on employer reputation, and the potential amplifier role of social media capability on this relationship. To do this, the proposed theory is tested on a sample composed of 100 large firms of Spain. The empirical analysis supports our theory because of the following reasons. First, we show that CSR activities enable the firm to build greater employer reputation. CSR includes social, environmental, and ethical activities that are perceived by job seekers as an antecedent of a higher employer reputation. CSR activities are thus perceived as a signal of the working conditions of the firm. In this sense, potential applicants will find socially responsible firms as more attractive places to work for and will choose these firms before others. Second, as social media can be leveraged by the firm to give more visibility to its CSR activities in the market and, as CSR activities enable the firm to improve its employer reputation, we also find that social media capability plays an amplifier role on this equation in such a way that the relationship between CSR activities and employer reputation is stronger when the firm has proficiency in leveraging social media to execute business activities. In this way, social media capability creates firm’s business value.

This research makes three contributions to the fields of IS and Business Ethics. First, with a few exceptions (Dogl and Holbrugge, 2014; Jones et al., 2014; Turban and Greening, 1997), research on the impact of CSR on employer reputation is very scarce. Our study provides new empirical evidence that supports the better firm’s employer reputation derived from firm’s investments in CSR activities. Thus, our study extends the limited body of research focused on CSR activities and employer reputation (i.e., employee perspective), as compared with the better understanding of the CSR impact on brand equity/corporate reputation (i.e., customer perspective).

Second, to the best of our knowledge this study is pioneer in theorizing how social media capability amplifies the relationship between CSR activities and employer reputation. The study of the firm’s use of social media platforms to execute business activities (beyond marketing purposes) is in initial stages (Aral et al., 2013; Braojos et al., 2015a, 2015b; Ngai et al., 2015), lacking theoretical and empirical studies explaining how social media capability may help the firms to create business value (i.e., social business value). We shed light on this gap. This study theoretically explains and empirically demonstrates that social media capability creates firm’s business value by amplifying the positive impact of CSR activities on employer reputation. Thus, social media capability provides a more visible, trustable, and far-reaching platform to allow that CSR activities impact on employer reputation on a stronger way. In this sense, social media capability maximizes the role of CSR activities in employer reputation building.

Third, this paper argues and finds that social media is a complementary IT capability that complements the relationship between CSR activities and employer reputation. The third key contribution of this paper is to extend the complementary resource perspective (e.g., Kristal et al., 2010) by introducing social media capability (a new potential capability for the contemporary firm) to the firm’s portfolio of complementary capabilities. CSR activities are a business resource and social media are an IT capability that reinforce and build on each other to create business value in terms of better employer reputation.

This research has also some limitations which can generate further research opportunities. First, the concept of complementary capabilities is often framed in a context. Thus, we cannot conclude that this complementary relationship will be optimal under all contingencies (Flynn and Flynn, 2004). Future research should explore if our theory is also supported in other countries. Second, although this paper focuses on the most popular and most used by firms external social media sites (Culnan et al., 2010), other external social media platforms (e.g., LinkedIn) and also internal social media sites are used by firms for diffusing its business activities. Future research may extend the social media capability’s
portfolio to LinkedIn, and the firm’s internal social media platforms. Third, this study is tested on a sample of 100 firms (i.e., a sample that is relatively small). Future research may replicate our study using a larger sample.

The results of this study provide two critical managerial lessons. First, the execution of CSR activities enables firms to enhance its reputation as employer to attract and retain talent. Second, firms will maximize employer reputation if they invest and leverage Facebook, Twitter, and corporate blogs while execute CSR activities. These lessons may help IT and business managers to create business value from investments in social media and CSR activities.

Acknowledgments

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References


