

Co-creation

A Key Link Between Corporate Social Responsibility, Customer Trust, and **Customer Loyalty**

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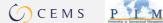
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TITLE

Co-creation: A key link between corporate social responsibility, customer trust, and customer loyalty

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Co-creation and CSR

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TITLE

Co-creation: A key link between corporate social responsibility, customer trust, and customer loyalty

ABSTRACT

In an ever more transparent, digitalized and connected environment, customers are increasingly pressuring brands to embrace genuine corporate social responsibility (CSR) practices and co-creation activities. While both CSR and co-creation are social and collaborative processes, there is still little research examining whether CSR can boost cocreation. In addition, while previous research has mainly related co-creation to emotional outcomes (e.g., customer affective commitment), limited empirical research has related it to rational outcomes (e.g., customer trust) and behavioral outcomes (e.g., customer loyalty). To address these shortcomings in the literature, this paper examines the influence of CSR on customer loyalty, considering the mediating roles of co-creation and customer trust. It also investigates the influence of co-creation on customer trust. The data were collected in Spain in late 2017 using an online survey, and the sample contained 1101 customers of health insurance services brands. Structural equation modeling was used to test the hypothesized relationships simultaneously. The results show that CSR influences customer loyalty both directly and indirectly through co-creation and customer trust. However, the indirect impact is the stronger of the two, implying that embracing co-creation activities and developing customer trust can make it easier for CSR practices to enhance customer loyalty. In addition, co-creation has a direct effect on customer trust.

INTRODUCTION

According to the 2016 Global RepTrak 100 report (Reputation Institute, 2016), corporate social responsibility (CSR) is an important precursor of corporate reputation and is linked to better financial performance in terms of stock value. Accordingly, some 64% of the CEOs surveyed in the 19th annual global CEO survey by PwC (2016) reported that CSR is at the heart of their corporate strategy and actions. Further, some 45% agreed that their investors would expect them to make more socially responsible investments during the next five years. These managerial perceptions and intentions are a response to the growing importance that customers are giving to socially responsible consumption, and to their increasing expectations regarding brands' social engagements (Carrigan and Attalla, 2001; Shaw and Shiu, 2002).

This growing customer pressure for brands to act in a more socially responsible manner has been largely driven by the rapid development of information technologies, which have fostered a much more connected and transparent environment (e.g., Iglesias et al., 2017; Lindfelt and Tornroos, 2006; Markovic et al., 2018). In this context, public opinion and customers are increasingly aware of poor brand practices and punish those brands whose actions harm the environment and society (Nyilasy et al., 2014). Likewise, superficial (Maxfield, 2008) or insincere (Pope and Waeraas, 2016) CSR actions that merely aim to repair a brand's reputation (Vlachos et al., 2009), are also increasingly criticized on social media. Consequently, some strong brands have started to place social responsibility genuinely at the heart of their business strategies (Markovic et al. 2018; Sierra et al., 2017), becoming true brands with a conscience (Iglesias and Ind, 2016) that can portray their

social responsibility sincerely when interacting with customers (Balmer, 2001; Ind, 1997; Rindell et al., 2011). When customers perceive this, their loyalty to the brand is likely to increase, as they tend to reward those brands that demonstrate to be beneficial to society and the planet (Eisingerich et al., 2011; Walsh and Beatty, 2007).

At the same time, the new digitized and connected environment also offers customers the possibility of interacting much more directly with brands (Ramaswamy and Ozcan, 2016; Ind et al., 2013, 2017). Brands, such as Lego and Adidas, have built much of their recent success on a greater openness to the outside world, aiming to develop relationships of trust and true partnerships with their customers, making themselves more relevant in an ever more competitive marketplace. For example, Mindstorms, one of the best-selling products in Lego's history, was co-created with customers. Co-creation can be defined as an active, creative, dynamic, and social process aimed at developing new relevant product or service innovations through collaborative brand-customer interactions and relationships (e.g., Ind et al., 2013, 2017; Markovic and Bagherzadeh, 2018). Embracing co-creation is attractive for brands, because it can lead to a plethora of organizational advantages, including cost efficiencies, risk reduction, speed-to-market, better insights, and competitive advantage (e.g., Hatch and Schultz, 2010; Ind et al., 2013, 2017; Kazadi et al., 2016; Prahalad and Ramaswamy, 2000). In addition, engaging in co-creation is a stimulating experience for many customers (Ind et al., 2017). First, customers can establish a warm, deep relationship with the brand and the other members of the co-creation community (Nambisan and Baron, 2007). Second, when taking part in a co-creation project, customers often feel that they grow as individuals, learn together with the community, and become more creative (Ind et al., 2013). In essence, co-creation offers customers opportunities for self-development, as well as social and hedonic benefits (Caru and Cova, 2015; Schau et al., 2009) that lead them to feel more closely connected to the brand (Ind et al., 2013).

Thus, co-creation is a social and collaborative practice (Ramaswamy and Ozcan, 2016; Ind et al., 2017). Curiously, so is CSR, which also consists of trying to provide value for a social ecosystem in which multiple stakeholders interact (Vitell, 2015; Singh et al., 2017). Socially responsible brands are thus open to listening to and understanding the needs and challenges of their stakeholders (Pour et al., 2014), as well as to seeking relevant solutions for them. Similarly, co-creation consists in engaging customers, as well as other possible stakeholders, in innovation processes that enable the development of relevant solutions (Nysveen and Pedersen, 2014). From this perspective, it is plausible to expect that when customers perceive brands as socially responsible, they would also perceive them as more open to co-creation projects. However, while several authors have shown that CSR can influence a multitude of firm/brand and customer outcome variables, such as corporate/company evaluation (Brown and Dacin, 1997; Sen and Bhattacharya, 2001), firm-idiosyncratic risk (Luo and Bhattacharya, 2009), firm market value and financial performance (Luo and Bhattacharya, 2006), brand equity (Sierra et al., 2017), customer affective commitment (Markovic et al., 2018), customer purchase intention and behavior (Carrigan and Attalla, 2001), and customer perceived service quality (Sierra et al., 2017), little research has investigated whether engaging in socially responsible practices can help brands boost their co-creation activities (e.g., Lindfelt and Tornroos, 2006; Williams and Aitken, 2011).

In contrast, several studies have suggested that co-creation activities make customers develop positive emotions and feelings toward a brand, and thus be more affectively committed to it (e.g., Ind et al., 2013, 2017). Nevertheless, there is still scarce research relating co-creation to rational and behavioral outcome variables, such as customer trust and customer loyalty. This is surprising, because customers' cognitions and behavioral intentions can result in various significant organizational benefits, including increased sales and positive word-of-mouth (e.g., Markovic et al., 2018).

To address the aforementioned gaps in the literature, this paper examines the influence of CSR on customer loyalty, considering the mediating roles of co-creation and customer trust. It also investigates the influence of co-creation on customer trust. The data were collected in Spain in late 2017 using an online survey, and the sample contained 1101 customers of health insurance services brands. Establishing strong brands is especially important in the services sector, because services are intangible and heterogeneous (e.g., Berry, 1980; Zeithaml et al., 1985). From the organizational perspective, this means that it is difficult for services brands to deliver a uniform level of quality (Berry, 1980; Booms and Bitner, 1981). From the customer perspective, it implies a higher degree of perceived purchase risk, when compared to the goods sector (Choudhury, 2014; Eiglier and Langeard, 1977; Markovic et al., 2018). Furthermore, services brands generally have a greater number of touchpoints and interactions with their customers than product brands (Gronroos, 2006). This creates significant challenges because services brands need to consistently portray their social responsibility at each of these touchpoints if they want to develop various positive brand and customer outcomes, such as enhanced brand equity and improved customer loyalty (Sierra et al., 2017; Singh et al., 2012). It has thus become increasingly

important for services brands to show their societal commitment at the corporate level (Balmer, 2001; Ind, 1997). The health insurance services industry in particular was chosen because it has invested heavily in CSR since the recent global financial crisis in order to regain customer trust and rebuild its reputation (Iglesias et al., 2017). Moreover, leading brands in the health insurance services industry have begun to engage in co-creation activities, intended in many cases to improve customer experience (Chazal, 2018). For instance, since 2016, the health insurance brand AXA has developed a CSR standard that must be met in all of its contracts to ensure that the brand and its products comply with 15 ethical standards, ranging from data privacy to environmental issues. At the same time, AXA is fostering co-creation as a key tool to improve customer experience (Chazal, 2018). Another interesting example is the health insurer DKV, which has developed a program called Health4good aimed at improving health by co-creating relevant solutions with organizations specialized in new technologies. DKV has also invested in CSR for many years, and is one of the benchmarks in the health insurance services industry (DKV, 2018).

Structural equation modeling was used to test the hypothesized relationships simultaneously. The results show that CSR influences customer loyalty both directly and indirectly through co-creation and customer trust. However, the indirect impact is the stronger of the two, implying that embracing co-creation activities and developing customer trust can make it easier for CSR practices to enhance customer loyalty. In addition, co-creation has a direct impact on customer trust. These results imply that embracing co-creation can play a key role in developing customer trust in a brand and allow brands genuinely committed to CSR to differentiate themselves from brands that resort to selective disclosure and greenwashing.

The remaining sections of this paper contain the theoretical background and hypotheses development, the methodology, the data analysis and results, and finally, the discussion and conclusion.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

CSR and Co-creation

According to Singh (2014), CSR is often used interchangeably with corporate ethics, sustainability, citizenship behavior and corporate conscientiousness, but the essence of CSR reflects the fact that brands are part of a social system and are expected to act responsibly (Singh, 2014). In his seminal article on CSR, Carroll (1979) proposed that CSR encompasses four types of responsibilities: economic, legal, ethical, and social. In a content analysis of 37 previously developed definitions of CSR, Dahlsrud (2008) concluded that the definitions represent five, generally congruent, underlying dimensions: environmental, societal, stakeholder, economic, and voluntariness. A definition of a socially responsible business proposed by Vitell (2015) captures the essence of CSR by highlighting two key underlying dimensions: proactive participation in activities offering social benefit or public service, and voluntary engagement in avoiding practices that can harm society, even without any legal obligation. Overall, it could be argued that the underlying social or collective essence of CSR relates to the activity of co-creation, as it is interactional in nature (e.g., Hatch and Schultz, 2010; Ind et al., 2017; Singh et al., 2017). In this line, Nysveen and Pedersen (2014, p. 811) conceptualize co-creation as the "degree to which consumers actively participate with companies in improving existing solutions or find new solutions to create more value both for the consumer and the company."

Co-creation is not a novel phenomenon (Bendapudi and Leone, 2003). Its origins date back to preindustrial times, during which customers decided what was to be created by the craftsperson and how (Wikström, 1996). However, in the industrial period, co-creation lost its prevalence in favor of mass production, as products became more standardized to achieve greater cost advantages (Harwood and Garry, 2010). Nevertheless, with the emergence of the postindustrial era, brands have started to inhabit an environment characterized by fast, flexible new production facilities, decentralized organizations, and rapidly evolving information technologies (e.g., Füller et al., 2009). In such an becoming environment, consumption patterns are increasingly heterogeneous, unpredictable, and uncontrollable by brands (Ind et al., 2017). This has limited the ability of mass production to satisfy the idiosyncratic needs and desires of customers. Consequently, in the early 2000s, co-creation reemerged and started to be considered as the future of product and service innovation (Prahalad and Ramaswamy, 2000). Accordingly, Prahalad and Ramaswamy (2004) proposed that the traditional company-centered approach has become customer-oriented, characterized by enhanced customer involvement in the joint creation of products and services.

The literature has shown that CSR boosts customer satisfaction (Luo and Bhattacharya, 2006), and when customers are satisfied with a specific brand, they are more likely to engage in the co-creation activities of that brand (Ind et al., 2013, 2017). Moreover, Sen et al. (2006) found that when customers are aware of the company's CSR practices, they

identify more strongly with the company and become more willing to commit personal resources (e.g., money, labor) to benefit the company, which enables co-creation activities. In this line, Martinez-Cañas et al. (2016) proposed that, in addition to intrinsic and extrinsic motivation factors, customer willingness to co-create also depends on transcendent motives, including the benefit that their collaboration provides for others in society. Thus, it is plausible to expect that customers will be more likely to participate in co-creation activities with brands/companies that they perceive to be socially responsible. Accordingly, we hypothesize that:

H1: CSR will have a positive effect on co-creation

CSR and Customer Trust

The brand and its customers can be considered business partners, whose dyadic exchange relationships are influenced by their respective perceptions of mutual trust (Singh et al., 2012). Therefore, trust can be defined as the confidence that each business partner will act with integrity and reliability during their interactions (Delgado-Ballester et al., 2003; Morgan and Hunt, 1994). Traditionally, various scholars have proposed integrity (e.g., Mayer et al., 1995; Ring and van de Ven, 1992) and reliability (e.g., Giffin, 1967) as key antecedents of trust. Moreover, business partners are likely to develop trust by being honest, benevolent, and altruistic (e.g., Larzelere and Huston, 1980; Mayer et al., 1995). The perception of lack of opportunistic behavior among business partners is also essential for trust development, as is the perception that the brand behaves fairly, accountably, and responsibly toward its customers (Singh et al., 2012).

Multiple scholars have shown that customer perceptions that the brand/company behaves in a socially responsible manner are positively related to customer trust in such brand/company (e.g., Lin et al., 2011; Martínez and Rodríguez del Bosque, 2013; Swaen and Chumpitaz, 2008). Examining customer perceptions of CSR, Vlachos et al. (2009) proposed a model relating customer perceptions of the company's motives for undertaking CSR actions (i.e., stakeholder, strategic, egoistic, and value-driven motives) to customer trust. Overall, socially responsible behavior is important, because a brand/company that is perceived as socially responsible is more likely to be trusted by its customers (Swaen and Chumpitaz, 2008).

Accordingly, in a manufacturing context, Kennedy et al. (2001) found that manufacturers' ethical concerns positively influence customer trust. Similarly, in a pharmaceutical setting, Lagace et al. (1991) showed that ethical behavior by the salesperson has a positive effect on customer trust. Likewise, in the field of services, García de los Salmones et al. (2009) found that the ethical behavior of a services company has a positive impact on trust. Meanwhile, in the context of fair trade product, Castaldo et al. (2009) showed that customer perceived CSR is positively related to customer trust in the retailer. Similarly, in a number of service industries (e.g., restaurants, airlines, financial services), Choi and La (2013) found that customer perceived CSR has a positive impact on customer trust. Likewise, in the hotel industry, Martínez and Rodríguez del Bosque (2013) provided empirical evidence of a positive effect of CSR on customer trust. In this line, in the organic food sector, Pivato et al. (2008) showed that CSR is positively related to customer trust. Finally, in the car industry, Lin et al. (2011) found that negative CSR perceptions can reduce customer trust.

In accordance with these findings from different areas, and aiming to shed more light in the services sector, where trust plays a key role (e.g., Martínez and Rodríguez del Bosque, 2013), we postulate that:

H2: CSR will have a positive effect on customer trust

Co-creation and Customer Trust

Several scholars have acknowledged that customers are no longer passive recipients of product and service innovations, but that they have the skills and expertise to undertake an active role in co-creation (e.g., Cova and Dalli, 2009; Von Hippel, 2005). Co-creation consists of inviting customers to comment on current brand offerings (products and/or services), and to contribute their ideas and knowledge to the development of new offerings (e.g., Füller et al., 2008; Gouillart, 2014; Markovic and Bagherzadeh, 2018). Thus, instead of trying to discover what customers may want by analyzing market research data or organizing focus groups, brands are now able to gather customer input directly from co-creation projects (Ind et al., 2013, 2017). In addition, co-creation can help brands build and maintain trusting relationships with their customers (Iglesias et al., 2013; da Silveira et al., 2013; Vallaster and von Wallpach, 2013). In this line, multiple scholars have suggested that favorable brand-customer interactions and relationships, on which co-creation initiatives are based, are a key driver of customer trust (e.g., Delgado-Ballester and Munuera-Aleman, 2005; Fournier, 1998; Wong and Sohal, 2002).

Accordingly, Madhavan and Grover (1998) proposed that rich interpersonal interactions during the co-creation of new products increase participant trust. Likewise, in a cross-sectorial study, Massey and Kyriazis (2007) showed that a high level of communication among participants during the joint development of new products increases trust. Similarly, in the context of innovative firms, García Rodríguez et al. (2007) found that cooperation in new product development improves trust. In the healthcare services sector, Banyte et al. (2014) showed that patient engagement in co-creation heightens their trust in the clinic. In the travel industry, Rajah et al. (2008) showed that dyadic firm-customer co-creation of services enhances customer trust. Finally, in online brand communities, where customers actively take part in co-creation processes, Brodie et al. (2013) found that engaged customers trust the brand more, and Ind et al. (2013) showed that customer participation in co-creation generates customer trust in the brand. In line with these previous findings from diverse settings, including services, we posit that:

H3: Co-creation will have a positive effect on customer trust

Co-creation and Customer Loyalty

Developing and sustaining customer loyalty is the holy grail of business activity (Singh et al., 2012). In the context of services marketing, customer loyalty can be defined as the customer's willingness to build a long-term relationship with a specific brand, and recommend such brand to other people (Lovelock and Wirtz, 2011; Markovic et al., 2018). Scholars have proposed that customer loyalty drives profitability, because of repeat transactions, referrals, willingness to pay a higher price, and reduced cost-to-serve (e.g.,

Lovelock and Wirtz, 2011). Moreover, research has established various antecedents of customer loyalty, being customer trust and customer affective commitment among the most common ones (e.g., Leonidou et al., 2013; Markovic et al., 2018; Singh et al., 2012). However, while previous research has widely linked rational (e.g., customer trust) and emotional (e.g., customer affective commitment) variables to customer loyalty, it has not extensively studied interactional variables (e.g., co-creation) as antecedents of customer loyalty.

Among this scarce research, in a study on personal care services firms, Cossío-Silva et al. (2016) found that customer co-creation behavior boosts customer loyalty. Likewise, in the context of brand communities, Kaufmann et al. (2016) proposed that when customers actively engage in co-creation, their loyalty to the brand increases. Similarly, Hajli et al. (2017) found that co-creation enhances customer loyalty, through participation in online brand communities, where customers develop trust in the brand. In the area of banking services, Hosseini and Hosseini (2013) and Nysveen and Pedersen (2014) showed that involving customers in co-creation positively influences customer loyalty to the bank. In the same vein, in the healthcare services sector, Banyte et al. (2014) found that patients' involvement in co-creation has a positive effect on their loyalty to the clinic. Finally, in the tourism sector, Peña et al. (2014) showed that involving customers in the co-creation of travel services positively influences customer loyalty. In accordance with these findings from multiple settings, we hypothesize that:

H4: Co-creation will have a positive effect on customer loyalty

Customer Trust and Customer Loyalty

While scarcely linking co-creation with customer loyalty, multiple scholars have argued that trusting relationships between the customers and the brand make the former more likely to become loyal to the brand (Chaudhuri and Holbrook, 2001; Fournier and Yao, 1997), adopting both a positive attitude toward it and the intention to repurchase its products or services (Delgado-Ballester and Munuera-Aleman, 2005). Developing trusting relationships with customers is important because, according to some estimates, acquiring a new customer could be anywhere between five and 25 times more expensive than retaining an existing one (Gallo, 2014). Accordingly, a substantial body of literature considers that customer trust relates positively to customer loyalty (e.g., Chaudhuri and Holbrook, 2001; Delgado-Ballester and Munuera-Aleman, 2005; Delgado-Ballester et al., 2003; Kumar and Advani, 2005).

For example, in the field of retailing, Sun and Lin (2010) showed that customer trust in a department store positively influences customer loyalty to the store. Also in the field of retailing, Stathopoulou and Balabanis (2016) provided empirical evidence of a positive effect of customer trust on customer loyalty to the store. Similarly, in the travel industry, Setó-Pamies (2012) and Rajah et al. (2008) found that customer trust in the travel services provider has a positive effect on customer loyalty. Likewise, in the area of business-to-business services, Hannan et al. (2017) provided empirical evidence of a positive influence of customer trust on customer loyalty. In this line, in the healthcare services sector, Banyte et al. (2014) showed that patients' trust in the clinic boosts their loyalty to the clinic.

Moreover, the link between customer trust and customer loyalty has been widely researched in the fields of business ethics and CSR. For instance, in a study on retail business ethics, Diallo and Lambey-Checchin (2017) found that customer trust in a retailer increases customer loyalty to that retailer. Similarly, in a research on customer perceived ethicality of product brands, Singh et al. (2012) showed that customer trust has a positive effect on customer loyalty. Likewise, in a study on corporate unethicality, Leonidou et al. (2013) found that the less customers trust a firm, the less they are loyal to that firm. In a study on CSR conducted in the United States, Kang and Hustvedt (2014) provided empirical evidence of a positive impact of customer trust in a corporation on customer intentions to purchase the products of that corporation. In this line, in the context of CSR and fair trade products, Castaldo et al. (2009) found that customer trust positively impacts customer loyalty. In a study on ethical sales behavior in the financial services industry, Román (2003) showed that customer trust in a financial services company positively influences customer loyalty to that company. Also in a study on ethical sales behavior, but in the health insurance industry, Chen and Mau (2009) found that customer trust in the health insurance company has a positive effect on customer loyalty to that company. In line with all this previous research linking customer trust to customer loyalty, especially in the fields of business ethics and CSR, and in the health insurance services industry, we postulate that:

H5: Customer trust will have a positive effect on customer loyalty

CSR and Customer Loyalty

In addition to establishing customer trust as a key antecedent of customer loyalty, several scholars have argued that CSR is a key element of corporate success that can shape customer evaluations of a brand, and determine customer intentions to repurchase the brand's products and services (Luo and Bhattacharya, 2006) and to form a long-term relationship with the brand (Markovic et al., 2018; Singh et al., 2012). In fact, a wide body of research has acknowledged that following socially responsible principles can help brands build and maintain long-term relationships with their customers (e.g., Gundlach and Murphy, 1993; Iglesias et al., 2017). Accordingly, research has widely related CSR to customer loyalty from an empirical standpoint (e.g., Castaldo et al., 2009; Diallo and Lambey-Checchin, 2017; Park et al., 2017).

For example, in the context of grocery shops, Ailawadi et al. (2014) found that positive customer perceptions of retailers' CSR initiatives have a positive influence on customer loyalty. Similarly, in the hotel industry, Martínez and Rodríguez del Bosque (2013) provided empirical evidence of a positive relationship between CSR and customer loyalty. In this line, in the banking sector, Mandhachitra and Poolthong (2011) showed a positive effect of CSR on customer loyalty. Also in the banking industry, Pérez and Rodríguez del Bosque (2015) found that CSR is positively related to customer repurchase intentions. Likewise, in the footwear industry, Kang and Hustvedt (2014) showed that the brand's social responsibility positively influences customer purchase intentions. In the context of fair trade products, Castaldo et al. (2009) found that customer perceived CSR is positively related to brand loyalty. Similarly, in the retail industry, Park et al. (2017) showed that

customer perceptions of a company's commitment to CSR have a positive effect on customer loyalty to that company. In a number of service industries (i.e., restaurants, airlines, financial services), Choi and La (2013) found that customer perceived CSR positively influences customer loyalty. Likewise, in an empirical study on the antecedents and consequences of CSR, Stanaland et al. (2011) provided empirical evidence of a positive effect of customer evaluations of a firm's CSR activities on customer loyalty. In line with this research from various contexts, we posit that:

H6: CSR will have a positive effect on customer loyalty

METHODOLOGY

Survey and Measures

The survey contained constructs measured using and adapting existing scale items in the literature (see Table 1). All responses were recorded by means of a seven-point Likert scale, ranging from "completely disagree" to "completely agree." A double-blind backtranslation process was applied to the survey to translate the items into Spanish.

---- INSERT TABLE 1 ABOUT HERE -----

The survey was pre-tested in two ways. First, to avoid potential misinterpretation by respondents, several experts from the fields of brand management and business ethics

assessed the conceptual adequacy of the questions and their formulation. Second, several target respondents assessed the ease of comprehension of the survey.

Data Collection and Sample

Data collection was conducted in Spain through an online survey in late 2017 by an external company, Eurus e-i, which is specialized in performing market studies. This external company was responsible for recruiting target respondents, using two online customer panels (i.e., Encuestón and Cint), and for executing the survey (i.e., distributing it and managing respondent incentives). The target population comprised Spanish individuals between 18 and 65 years old who had health insurance. Respondents were selected using several filtering questions to ensure that they belonged to our target population. Regarding the sampling procedure, we created stratums, based on socio-demographic variables including sex, age, habitat size and geographical location, and calculated the number of individuals we needed in each stratum to have a representative sample of the Spanish population (according to census data from the Spanish National Institute of Statistics). Then, individuals from the above-mentioned customer panels were randomly invited by email, which included a link to the survey. The recruitment process continued until each stratum was filled. In the email invitation, respondents were also informed about the objectives of the survey and that they would get paid €1.50 as compensation for the time taken to complete it. This process produced a sample of 1101 customers (useable completed surveys) with an average age of 39.9, and a median age of 39. Some 52% of respondents were female.

DATA ANALYSIS AND RESULTS

Construct Analysis

We evaluated the factor structure and convergent and discriminant validities of the constructs by conducting a confirmatory factor analysis (CFA) using the maximum likelihood method with AMOS 22.0. To assess goodness of fit, we used the chi-square (χ 2), goodness of fit index (GFI), comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The results showed that all the fit indices were within their acceptable cut-off values, confirming that the hypothesized four-factor measurement model fits the data well (χ ²= 215.813 with df = 59 (χ ²/ df = 3.66); GFI = 0.969; CFI = 0.986; RMSEA = 0.049; SRMR = 0.030) (Hu and Bentler, 1999).

In addition, the hypothesized four-factor measurement model provided a significant chisquare improvement over other more parsimonious models. For instance, we evaluated a three-factor measurement model, where the items of the following constructs were set to load on a single factor: co-creation and customer loyalty ($\Delta \chi^2 = 1095.131$, $\Delta df = 3$, p-value < 0.001); customer trust and customer loyalty ($\Delta \chi^2 = 429.425$, $\Delta df = 3$, p-value < 0.001); CSR and customer loyalty ($\Delta \chi^2 = 690.306$, $\Delta df = 3$, p-value < 0.001); customer trust and co-creation ($\Delta \chi^2 = 1025.925$, $\Delta df = 3$, p-value < 0.001); CSR and customer trust ($\Delta \chi^2 = 567.372$, $\Delta df = 3$, p-value < 0.001); and CSR and co-creation ($\Delta \chi^2 = 534.626$, $\Delta df = 3$, pvalue < 0.001). In addition, the GFI, CFI, RMSEA and SRMR fit indices were better for the hypothesized four-factor measurement model than for the three-factor model. Overall, these results support the hypothesized four-factor measurement model.

Thereafter, we analyzed the factor loadings of the items (see Table 2). All standardized factor loadings were significant and higher than the recommended threshold value of 0.50 (Fornell and Larcker, 1981). The average variances extracted (AVEs) of all four constructs were greater than the cut-off value of 0.50 (see Table 2) (Fornell and Larcker, 1981). These results support the convergent validity of all the constructs. Following Fornell and Larcker's (1981) discriminant validity test, the square root of the AVE of each construct was greater than its correlation with all the other constructs (see Table 3), providing evidence for the discriminant validity of all four constructs. Finally, Table 2 presents the composite reliability (CR) and Cronbach alphas coefficients computed to evaluate the reliability of the constructs. The Cronbach alpha coefficients ranged from 0.88 to 0.90, and the CR values from 0.88 to 0.91, providing evidence of the reliability of all four constructs in the hypothesized model (Nunnally and Bernstein, 1994). Overall, these results indicate that each of the four constructs has good psychometric properties.

---- INSERT TABLES 2 AND 3 ABOUT HERE -----

Finally, to check item distribution, we calculated their skewness and kurtosis. The results indicated that all of them were normally distributed (skewness ranged from -1.106 to -0.435, and kurtosis from -0.603 to 1.689) (West et al., 1995).

Common Method Variance

This study is subject to common method variance (CMV), as the data for all constructs were collected from a single respondent (Podsakoff and Organ, 1986). To reduce the potential CMV effect, the dependent, mediating, and independent variables were proximally separated in the survey (Podsakoff et al., 2003). This prevented respondents from linking the variables in this study, and thereby limited the chance that their responses to one set of questions would affect those to the other questions.

Nevertheless, to test whether CMV could bias our results, we first conducted the CFA-based Harman single-factor test (Podsakoff et al., 2003; Podsakoff and Organ, 1986), using the maximum likelihood method. We set all the items in the study to load on a single factor. This single-factor measurement model did not provide the fit indices within their acceptable ranges (χ^2 = 2027.463 with df = 65 (χ^2 / df = 31.19); GFI = 0.714; CFI = 0.824; RMSEA = 0.166; SRMR = 0.078). Our hypothesized four-factor measurement model significantly improved the chi-square ($\Delta\chi^2$ = 1811.65, Δdf = 6, p-value < 0.001), and also provided better fit indices than the single-factor measurement model (Δ GFI = 0.255; Δ CFI = 0.162; Δ RMSEA = 0.117; Δ SRMR = 0.048).

Second, following Lindell and Whitney (2001), we applied the marker variable technique, using psychological risk (Keh and Pang, 2010) as our marker variable (i.e., a variable theoretically-unrelated to the others in this study). The lowest absolute correlation between psychological risk and our four constructs was considered as the CMV estimate (r_s).

Psychological risk was correlated with CSR (r = 0.009); co-creation (r = 0.215); customer trust (r = -0.161); and customer loyalty (r = -0.144). Accordingly, the CMV estimate (r_s) was 0.009, showing a low common variance shared between constructs. To control for potential CMV, the correlation coefficients between all four constructs were adjusted based on $r_s = 0.009$ (see Table 4). All significant unadjusted correlation coefficients remained significant after adjusting for CMV. All these results imply that CMV is not great enough to bias the results of our study.

---- INSERT TABLE 4 ABOUT HERE -----

Hypothesized Structural Model Analysis

Table 3 shows the means, standard deviations, and correlations of the four constructs in this study. The correlations between the constructs provided preliminary support for all six hypotheses, with customer loyalty being significantly associated with CSR (r = 0.69), cocreation (r = 0.58), and customer trust (r = 0.76). CSR is also significantly correlated with co-creation (r = 0.70) and customer trust (r = 0.73). Finally, there is a significant correlation between co-creation and customer trust (0.60).

To test the hypothesized relationships between CSR, co-creation, customer trust, and customer loyalty (see Figure 1), we applied covariance-based structural equation modelling (SEM), using the maximum likelihood method, in AMOS 22.0.

---- INSERT FIGURE 1 ABOUT HERE----

All the fit indices showed that our hypothesized structural model has an acceptable fit (χ^2 = 215.813 with $df = 59 (\chi^2 / df = 3.66)$; GFI = 0.969; CFI = 0.986; RMSEA = 0.049; SRMR = 0.030). Some alternative models (models 1, 2, and 3) to our hypothesized structural model (model 4) were specified, and we calculated all their fit indices (see Table 5). In model 1, we only specified the direct impacts of CSR, co-creation, and customer trust on customer loyalty. In model 2, we specified the direct effect of CSR on both co-creation and customer trust, as well as the direct effects of co-creation and customer trust on customer loyalty. Alternative model 3 reproduces the hypothesized structural model, but without the direct impact of CSR on customer loyalty. As the χ^2 /df ratio of the hypothesized structural model (3.66) is smaller than the χ^2/df ratios of the alternative models 1 (29.47), 2 (3.80) and 3 (3.81), the hypothesized structural model fits the data better than alternative models 1, 2 and 3. Moreover, to compare the hypothesized structural model with alternative models 1, 2 and 3, we applied the chi-square difference test. The hypothesized structural model provided a significant improvement in $\chi 2$ over model 1 ($\Delta \chi 2 = 1611.033$, $\Delta df = 3$, p-value < 0.001), model 2 ($\Delta \chi 2 = 15.678$, $\Delta df = 2$, p-value < 0.001), and model 3 ($\Delta \chi 2 = 12.967$, $\Delta df = 1$, p-value < 0.001). Furthermore, the hypothesized structural model had greater GFI and CFI, and smaller RMSEA and SRMR than alternative models 1, 2 and 3. All these results confirm that the hypothesized structural model fits the data better than the alternative models.

---- INSERT TABLE 5 ABOUT HERE -----

Tests of the hypothesized relationships between the constructs empirically supported all six hypotheses (see Table 6). In addition, the bootstrap procedure using 5000 bootstrapping samples supported all six hypotheses. CSR has significant and positive effects on cocreation (β = 0.79), customer trust (β = 0.74), and customer loyalty (β = 0.20), supporting H1, H2, and H6, respectively. In addition, co-creation has a significant and positive effect on customer trust (β = 0.10) and customer loyalty (β = 0.09), which supports H3 and H4, respectively. Finally, customer trust has a significant and positive influence on customer loyalty (β = 0.63), supporting H5.

---- INSERT TABLE 6 ABOUT HERE -----

These significant direct effects point to a potential partial mediating effect of co-creation and customer trust in the relationship between CSR and customer loyalty. To test the significance of this potential partial mediating effect, we performed the bootstrap procedure using 5000 samples to develop bias-corrected confidence intervals for the indirect effect. The indirect effect (0.57) was significant at a 95% confidence level (95% Bias-corrected bootstrap CI = [0.46; 0.69]), indicating that the relationship between CSR and customer loyalty is partially mediated by co-creation and customer trust. Some 74% of the total effect of CSR on customer loyalty (0.77) occurs through the two mediators of co-creation and customer trust.

Finally, we analyzed three possible indirect effects of CSR on customer loyalty via cocreation and customer trust (i.e., partial mediators) using the bootstrap procedure suggested

by Preacher and Hayes (2004). We performed this bootstrap procedure using the PROCESS macro 2.16.2 (Hayes, 2017) in SPSS 23.0. Table 7 presents the three possible indirect effects, their bootstrap standard errors, and the 95% bias corrected confidence intervals based on 5000 bootstrapping samples. The three indirect effects are significant. Therefore, CSR has a significant and positive effect on customer loyalty via co-creation (Indirect effect 1 = 0.07), customer trust (Indirect effect 3 = 0.33), and following the path through co-creation and then customer trust (Indirect effect 2 = 0.06).

---- INSERT TABLE 7 ABOUT HERE -----

DISCUSSION AND CONCLUSION

Theoretical Contributions

This research has some important theoretical contributions. First, we show that CSR can boost customer loyalty. This is because when brands genuinely invest in CSR, sincerely strive to generate social benefits, and avoid practices that might harm society and the environment (Vitell, 2015), they can connect with their customers emotionally, and thus generate greater customer loyalty. This finding reinforces the growing importance of responsible and sustainable consumption to customers, and of brand involvement in societal causes (Carrigan and Atalla, 2001; Shaw and Shiu, 2001). Nonetheless, brands still face a significant challenge, namely, customers who have become increasingly skeptical of CSR practices (Nyilasy et al., 2014). The reason is that, all too often, customers perceive these practices as insincere (Poppe and Waeraas, 2016). In fact, accusations of

greenwashing have intensified over the last few years (Marquis et al., 2016), as has the perception that CSR is only a means to repair corporate reputation (Vlachos et al. 2009). In short, some customers see CSR as an insincere response (Maxfield, 2008) that brands use only superficially and cosmetically (Narth et al., 2007), or as a rhetorical ploy to strengthen their reputation (Nyilasy et al., 2014). In these cases, brands tend to implement a selective disclosure strategy, designed to inform about and emphasize the benign impacts of their actions while hiding their negative effects and thus their true performance (Marquis et al., 2016). The ultimate aim of this strategy is to create a false image of transparency and social responsibility (Marquis et al., 2016). This, of course, raises concerns about the corporate motivations and ethics behind CSR (Joyner and Payne, 2002). This is a complex and dangerous situation for brands that do genuinely believe in CSR (brands with a conscience) (Iglesias and Ind, 2016), and have included CSR as a core element of their strategy and business activity. The challenge for these brands is to find ways of transmitting their authentic and sincere commitment to CSR, and of clearly differentiating themselves from brands that resort to selective disclosure and greenwashing.

In this regard, co-creation represents an especially great opportunity for services brands, as it can help them to translate their CSR practices into enhanced customer loyalty. Our results support this by showing that the indirect effect of CSR on customer loyalty (via co-creation and customer trust) accounts for some 74% of the total impact of CSR on customer loyalty. This means that when brands involve their customers in co-creation activities and are trusted, they can more easily translate their CSR practices into greater customer loyalty. This is because by embracing co-creation initiatives, brands inevitably open themselves to the outside world and listen to their customers (Ind et al., 2017). They also tend to foment

strategic partnerships through which employees and customers jointly define beneficial solutions for both parties (Ramaswamy and Ozcan, 2016). Consequently, co-creation is capable of generating customer trust (Nambisan and Baron, 2007), as customers perceive that brands are genuinely concerned about their needs and desires, and that they listen to them, and act accordingly (Ind et al., 2013).

Additionally, the currently prevalent approach to CSR, in line with the stakeholder theory (Freeman, 1999), argues that any organization should balance the interests of its different stakeholders (Van Marrewijk, 2003). This turns stakeholder opinions and the promotion of stakeholder dialogue into key concerns for brands (O'Riordan and Fairbrass, 2008). Moreover, this explains why brands that adopt an authentic and genuine approach to CSR are likely to devote significant efforts to listening to and understanding the needs and desires of their customers (Pour et al., 2014). Interestingly, co-creation is based precisely on a philosophy of dialogue, openness, listening, and a real commitment to customer needs and desires. This philosophy is also the complete opposite of selective disclosure and greenwashing. Thus, co-creation may enable brands to generate customer trust and to more effectively translate their CSR activities into enhanced customer loyalty.

This research also shows that customer trust plays a key role in the ability of CSR practices to improve customer loyalty. Thus, services brands need to act with honesty and integrity regarding CSR for it to make a stronger impact on customer loyalty (Delgado-Ballester et al., 2003; Morgan and Hunt, 1994). In addition, services brands have to manage many more touchpoints with their customers (Gronroos, 2006) than, for example, fast-moving consumer goods (FMCG) brands. Consequently, in a service industry's competitive

context, brands can not only instill trust through sincere, transparent, non-manipulative communication efforts, but also need to generate trust at every single touchpoint that makes up the customer experience, especially when customers interact directly with frontline employees (Markovic et al., 2018). Therefore, services brands have to develop and portray their commitment to CSR strategies and initiatives carefully at all the different touchpoints forming the customer journey (Iglesias et al., 2017).

Overall, the results of our study contribute to the literature on CSR by establishing a new and still largely unexplored connection with the emerging field of co-creation, and by linking both CSR and co-creation with the key customer outcome variables of customer trust and customer loyalty in the context of health insurance services brands, which currently have high levels of customer distrust (2018 Edelman Trust Barometer) and whose CSR initiatives are often perceived by customers as insincere and manipulative (Hsu, 2012; Lock and Seele, 2015).

Managerial Implications

In addition to its theoretical contributions, this research has important implications for managers. First, if managers want to increase the customer loyalty deriving from their CSR activities, they need to promote an authentic dialogue with customers. In fact, the literature on CSR already recommends managers to make stakeholder dialogue a key priority in their agendas (O'Riordan and Fairbrass, 2008). The results of our study build on this literature by suggesting that managers should embrace co-creation to increase customer trust and to more effectively translate their CSR activities into enhanced customer loyalty. This is a

novel perspective, because the majority of brands that embrace co-creation do so to produce better innovations, but do not realize that co-creation can also be used to boost customer trust and loyalty.

Second, although co-creation can make it easier for CSR practices to enhance customer loyalty, managers should understand that not all brands embracing co-creation do so as effectively as possible. In fact, based on an empirical research on brands from different sectors and geographies, Ind et al. (2017) introduced a co-creation continuum that has a tactical and a strategic end, and found that most brands understand co-creation from a tactical perspective, which impedes them to realize its potential. These brands are much more akin to use co-creation as a market research tool than to build strategic partnerships with customers through joint innovation projects (Ind et al., 2017). In these cases, the brands' underlying assumption is that customers can provide useful information and insights, but do not have the required knowledge and expertise to generate substantial service innovations (Nambisan and Nambisan, 2008). As a result, brands that adopt this tactical view of co-creation only involve customers on an ad-hoc basis to test and refine internally-generated ideas (Ind et al., 2017). This could significantly limit the capacity of co-creation to boost the effect of CSR on customer loyalty. However, if managers want to realize the full potential of co-creation, they have to foment a much more open and participatory corporate culture (Iglesias et al., 2013) that genuinely appreciates and recognizes customer knowledge and expertise (Prahalad and Ramaswamy, 2000) and authentically takes into account customer idiosyncratic needs and desires. Additionally, they need to build long-term, trustworthy collaborative relationships with customers and treat them as true strategic innovation partners (Kazadi et al., 2016; Markovic and

Bagherzadeh, 2018). This strategic approach to co-creation, which is at the opposite end of the continuum (Ind et al., 2017), is that with the greatest potential to translate CSR practices into enhanced customer loyalty.

Third, the capacity of CSR practices to generate customer trust and loyalty in the services sector does not depend solely on communication efforts. It also depends on how well services brands embed them at the different touchpoints with customers, especially those involving direct customer contact with frontline employees (Markovic et al., 2018). Subsequently, managers should ensure that they develop human resource management policies that support their CSR strategies (Iglesias and Saleem, 2015). In this regard, they should hire employees whose values are aligned with their brand's CSR practices, and design training programs to encourage socially responsible behavior among employees. In addition, promotion opportunities should also depend on employees' CSR performance and ability to embody and enact societal values.

Finally, brands should adhere to a more authentic and sincere approach to CSR, which should be grounded in doing good in its own right, although this may lead to some second-order benefits for the organization, such as increased customer loyalty. Brands need to develop a conscience (Iglesias and Ind, 2016) and be committed to a consistent set of core values and principles that authentically guide all the brand's strategic decisions and actions, taking a long-term view of CSR, and endeavoring to transform the brand internally and improve its positive transformative impact on society and the environment.

Limitations and Future Research

Despite its theoretical contributions and managerial implications, this study has some limitations. First, it is limited to the health insurance services industry, and therefore the external validity of the findings is a concern. Future research should replicate this study in a wider range of services contexts, to figure out whether the results are consistent across the whole services sector. It would also be interesting and useful to test the hypothesized model in the goods sector and compare the results with those from the services sector. Such a study might reveal key differences between services and product brands, and shed light on how they should be managed respectively. Second, as the sample is only representative of the Spanish population, the generalizability of the results is an issue. To address this issue, future research should replicate this study in other countries with relevant cultural differences. This is a relevant future research opportunity, because customers from different cultural backgrounds tend to both assess services brands differently (Imrie, 2005) and define socially responsible brands differently (Iglesias et al., 2017). Third, as all the data for this study were collected using surveys, mono-method bias is a concern. Future research should triangulate this data source by gaining qualitative insights into the effect of CSR on customer loyalty, using focus groups or in-depth interviews, for example. Fourth, this study only uses attitudinal measures for CSR, co-creation, customer trust, and customer loyalty. Although, based on the theory of planned behavior (Ajzen, 1991), measuring a customer's attitude toward a brand is a satisfactory approximation of the customer's actual behavior toward that brand, future studies can add more rigor to our research by developing and using behavioral measures along with the attitudinal ones.

Apart from addressing these limitations, there are other relevant opportunities for future research. For instance, it would be interesting to discover how employees influence customer perceptions of CSR. This is especially important in the context of services brands, because services brands generally involve a greater number of customer-employee touchpoints than product brands (Gronroos, 2006), where they shape the customer experience (Iglesias et al., 2011). Moreover, while this study relates co-creation to different types of customer outcome variables, both rational (customer trust) and behavioral (customer loyalty), future research could relate it to relevant brand outcome variables, such as brand equity, one of the broadest and most important constructs in the field of brand management (e.g., Yoo et al., 2000; Sierra et al., 2017). It would be especially interesting to figure out which type of brand equity – consumer-based or financial – co-creation boosts the most.

COMPLIANCE WITH ETHICAL STANDARDS

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants included in the study.

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FIGURES AND TABLES

Figure 1 Hypothesized model

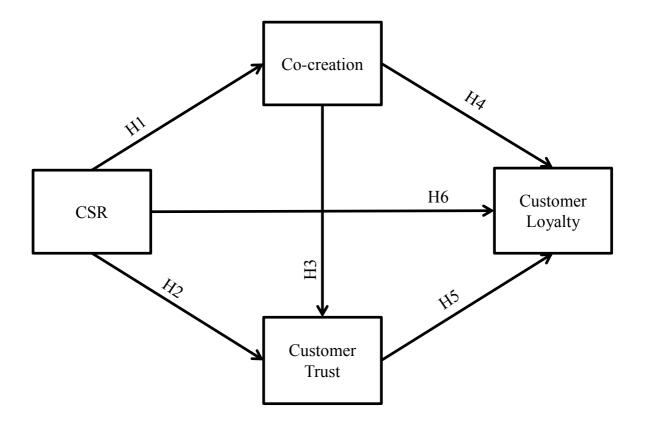


Table 1 Constructs and items used in the questionnaire

~	s and items used in the questionnaire	D. C. ()
Constructs	Items	Reference(s)
CSR	The brand is a socially responsible brand. The brand is more beneficial to society's welfare than other brands. The brand contributes to society in positive ways.	Eisingerich et al. (2011)
Co-creation	I often express my personal needs to the brand.	Nysveen and Pedersen (2014)
	I often find solutions to my problems together with the brand.	
	I am actively involved when the brand develops new solutions for me.	
	The brand encourages customers to create new solutions together.	
Customer trust	The brand keeps its promises.	Mende and Bolton (2011)
	The brand can be trusted.	Dagger et al. (2009)
	The brand is trustworthy.	
Customer loyalty	I consider the brand my first choice when I purchase the services they supply.	Dagger et al. (2011)
	I am willing to maintain my relationship with the brand.	
	I am loyal to the brand.	

 Table 2 Item descriptive and measurement model assessment

Construct	Items	Mean	SD	Loadings	Cronbach alphas	CR	AVE
CSR					0.89	0.89	0.73
	CSR1	5.25	1.28	0.869			
	CSR2	4.94	1.35	0.818			
	CSR3	5.12	1.28	0.872			
Co-creation					0.88	0.88	0.64
	CO1	4.42	1.70	0.755			
	CO2	4.73	1.54	0.833			
	CO3	4.49	1.68	0.771			
	CO4	4.63	1.54	0.833			
Customer trust					0.90	0.91	0.76
	T1	5.39	1.22	0.841			
	T2	5.66	1.16	0.900			
	T3	5.67	1.16	0.873			
Customer loyalty					0.90	0.90	0.76
- 3 3	L1	5.41	1.35	0.866	-		
	L2	5.50	1.30	0.867			
	L3	5.30	1.42	0.876			

Note: Standardized factor loadings are reported. All factor loadings are significant at 0.1% level (two-tailed).

Table 3 Construct descriptive and discriminant validity

	Mean	SD	1	2	3	4
1- CSR	5.11	1.18	0.85			
2- Co-creation	4.57	1.38	0.70	0.80		
3- Customer trust	5.58	1.08	0.73	0.60	0.87	
4- Customer loyalty	5.40	1.24	0.69	0.58	0.76	0.87

Note: Squared root of AVE on the diagonal. All Pearson correlations between constructs are significant at 1% level (two-tailed).

 Table 4 CMV-adjusted correlation coefficients

	Unadjusted	CMV-adjusted
	correlation	correlation
	coefficients	coefficients
CSR - Co-creation	0.698	0.695
CSR - Customer trust	0.729	0.727
Co-creation - Customer trust	0.597	0.593
Co-creation - Customer loyalty	0.579	0.575
Customer trust - Customer loyalty	0.764	0.762
CSR - Customer loyalty	0.694	0.691

Note: CMV-adjusted estimates using $r_s = 0.009$. All Pearson CMV-adjusted correlation coefficients between constructs remain significant at 1% level (two-tailed).

Table 5 Fit indices comparison between hypothesized structural model and alternative models

moder	S			
	1	2	3	4
	CSR, CO, $T \rightarrow L$	$CSR \rightarrow CO, T$	Hypothesized model without	Hypothesized model
		$CO, T \rightarrow L$	direct link between CSR and L	$CSR \rightarrow CO, T, L$
			$CSR \rightarrow CO, T$	$CO \rightarrow T$
			$CO \rightarrow T$	$CO, T \rightarrow L$
			$CO, T \rightarrow L$	
χ^2 (df)	1826.846 (62)	231.491 (61)	228.78 (60)	215.813 (59)
χ^2 / df	29.47	3.80	3.81	3.66
GFI	0.809	0.968	0.968	0.969
CFI	0.842	0.985	0.985	0.986
RMSEA	0.161	0.050	0.051	0.049
SRMR	0.369	0.031	0.031	0.030

Note: CO= Co-creation; T=Customer trust; L= Customer loyalty

Table 6 Direct effects results

Table o Direct effects results					
	Standardized	Standard	p-value	90% bias	Result
	Coefficients	Error		corrected CI*	
H1: CSR → Co-creation	0.79	0.036	< 0.001	[0.76; 0.82]	Supported ⁺
H2: CSR \rightarrow Customer trust	0.74	0.043	< 0.001	[0.65; 0.82]	Supported ⁺
H3: Co-creation → Customer trust	0.10	0.035	0.033	[0.002; 0.19]	Supported
H4: Co-creation \rightarrow Customer loyalty	0.09	0.036	0.033	[0.006; 0.17]	Supported
H5: Customer trust → Customer loyalty	0.63	0.051	< 0.001	[0.54; 0.70]	Supported ⁺
H6: CSR → Customer loyalty	0.20	0.057	< 0.001	[0.09; 0.31]	Supported ⁺

^{*} Bias-corrected bootstrap confidence interval based on 5000 bootstrapping samples.

⁺ Hypothesis is also significant based on 99% bias corrected CI.

Table 7 Indirect effects results

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	Standardized	95%
	Indirect effect	bias corrected CI*
1) CSR → Co-creation → Customer loyalty	0.07 (0.021)	[0.02; 0.11] +
2) CSR \rightarrow Co-creation \rightarrow Customer trust \rightarrow Customer loyalty	0.06 (0.013)	$[0.04; 0.09]^+$
3) CSR → Customer trust → Customer loyalty	0.33 (0.024)	$[0.28; 0.38]^+$

Note: Bootstrap standard errors are in parentheses.

* Bias-corrected bootstrap confidence interval based on 5000 bootstrapping samples.

+ Indirect effect is also significant based on 99% bias corrected CI.