**CORPORATE SOCIAL RESPONSIBILITY AND COMPETITIVE ACTIVITY**

**OF FIRMS: COMPLEMENTS OR SUBSTITUTES?**

**ABSTRACT**

Corporate social responsibility (CSR) research is confronted with a paradox: How can CSR simultaneously increase and decrease firm performance? We attempt to reconcile the paradox by bringing insights from competitive dynamics research. We show that CSR differentially affects two competitive activity (CA) attributes: it increases competitive complexity (the variety and novelty of competitive actions) but reduces competitive intensity (the number of competitive actions), especially in resource-scarce and hypercompetitive environments. We show that CSR benefits both types of CA by complementing the effects of competitive complexity and by substituting for the reduced competitive intensity, thus enhancing long- and short-term CFP, respectively.

**INTRODUCTION**

A key debate in CSR research is whether a firm’s operations and strategies should primarily reflect the interests of shareholders, or adopt a pluralistic orientation that is responsive to a variety of stakeholders. The shareholder view suggests that CSR activities undermine the ability of firms to be competitive and maximize corporate financial performance (CFP) because those resources are being used to benefit other stakeholders at the expense of shareholders (e.g., Friedman, 1970). Indeed, scholars have argued that CSR can divert managerial attention and resources from a firm’s core activities, and thus negatively impact CFP (e.g., Jensen, 2001). Conversely, the stakeholder view proposes that responding to all stakeholders enhances a firm’s ability to increase its competitive advantage (e.g., Freeman, 1984). Here, scholars have argued that CSR can enhance the core activities of firms as they “can innovate through using new technologies, operating methods, and management approaches” and “increase their productivity and expand their markets” (e.g., Porter & Kramer, 2011: 65), and thus positively impact CFP. Smith and Lewis (2011: 384) have described these contrasting explanations as a “performance” *paradox*: how can CSR simultaneously increase and decrease CFP?

The CSR-CFP paradox stems from a resource allocation tension between social and profit responsibility of firms. The literature in both paradox theory and CSR has eloquently described the tension and tradeoff between CSR and CFP (Margolis & Walsh, 2003; Smith & Lewis; 2011).[[1]](#footnote-1) Resource scarcity – particularly regarding time and resources – has been identified as a key source of tension (Miron-Spektor, Ingram, Keller, Smith & Lewis, 2018, Smith & Lewis, 2011). In line with this view, scholars have contended that CSR can create tradeoffs because of managerial and resource diversions (Aupperle, Carroll, & Hatfield, 1985; Jensen, 2001) and because of finite resources of firms (Harrison & Wicks, 2013). Despite the *resource allocation tension* between the competing demands of social and economic objectives of firms (Hahn, Pinkse, Preuss, & Figge, 2015; Preston & O’Bannon, 1997) and the mixed empirical evidence on the relationship between CSR and CFP (Margolis, Elfenbein, & Walsh, 2009; Zhao & Murrell, 2016), scholars have acknowledged that firms respond to the interests of *all* stakeholders pursuing both social and financial goals (Harrison, Bosse, & Phillips, 2010; Margolis & Walsh, 2003; Porter & Kramer, 2011).

Why do firms increasingly invest in CSR activities despite the resource-allocation tension between social activity (SA) and competitive activity (CA)? (Bonini & Bové, 2014; Keys, Malnight, & van der Graaf, 2009)[[2]](#footnote-2) We address the CSR-CFP paradox by directly studying *when* the SA-CA tension is the most pronounced and *how* it affects CFP.

To examine the first question, we integrate competitive dynamics perspective with CSR research. Competitive dynamics research has long argued that competitive actions are critical to understanding interfirm rivalry, competitive advantage, and performance (Chen & Miller, 2012; Grimm, Lee, & Smith, 2006; Ketchen, Snow, & Hoover, 2004, Smith, Ferrier, & Ndofor, 2001).[[3]](#footnote-3) In particular, this research has examined two CA types: *competitive complexity* – the variety and novelty of a firm’s competitive actions – and *competitive intensity* – the frequency of a firm’s competitive actions (Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017; Derfus, Maggitti, Grimm, & Smith, 2008; Ferrier, 2001; Ndofor, Sirmon, & He, 2011). We argue that the SA-CA tension exist in respect to competitive intensity, but not in respect to competitive complexity. Specifically, SA and competitive complexity are positively related because they both can build new capabilities (e.g., innovation and efficiency). However, the tension is present when firms attempt to simultaneously increase SA and competitive intensity. We find that the tension between SA and competitive intensity is the most pronounced in resource-scarce and hypercompetitive environments. Thus, many firms do not face the CSR-CFP paradox. Firms that compete with complex action repertoires, in munificent environments and less-competitive environments are not particularly constrained by simultaneously pursuing social and competitive activities.

To examine the second question, we examine how SA interacts with both competitive complexity and competitive intensity in explaining CFP. We argue that SA and competitive complexity will have synergistic effects on CFP, finding support for their positive interaction in explaining *long-term* CFP. In addition, we find that SA and competitive intensity negatively interact in explaining short-term CFP, suggesting that SA can compensate for reduced levels of competitive intensity. In short, a deeper analysis of the SA-Ca reveals that these activities are mutually reinforcing rather conflicting. What appears to be tension at the aggregate level of CA and in one time period is *not* contradictory at the more granular level of analysis, over different time-horizons (short-term versus long-term) and in munificent and less competitive industries. We test our theory and hypotheses using the dataset from MSCI ESG KLD for CSR scores and RavenPack News Analytics for CA.

Our study makes several key contributions. First, we advance the CSR literature and particularly stakeholder theory by providing a more nuanced understanding of the tension between social and competitive activities of firms. Jensen (2001: 14) states that “[s]takeholder theory…contains no conceptual specification of how to make tradeoffs among stakeholders.” But we show that firms can manage CSR activities with competitive action repertoires to compete effectively. In doing so, we demonstrate that firms can meet the competing demands of both shareholders and other stakeholders, and these tradeoffs between SA and CA do not actually undermine CFP. Second, we respond to the call for more research on *how* and *when* CSR influences competitive advantage and CFP instead of whether CSR influences CFP (Aguinis & Glavas, 2012; Margolis, Elfenbein, & Walsh, 2009, Zhao & Murrell, 2016). CSR can help firms increase long- and short-term CFP by complementing competitive complexity and substituting for the reduced competitive intensity, respectively. Furthermore, the mixed empirical findings on the relationship between CSR and CFP to date can be explained from a competitive dynamics perspective. Third, we contribute to the paradox literature by uncovering the potential mechanisms and empirically showing that the resource allocation tension relaxes when we consider the spatial and temporal effects of competitive activity and that firms are not necessarily confronted with a choice between economic and social goals; rather, they can profit by serving multiple stakeholders (Margolis & Walsh, 2003; Porter & Kramer, 2011) and effectively managing these tensions (Lewis, 2000, Smith & Lewis, 2011). Fourth, we advance competitive dynamics research by revealing some conditions under which competitive intensity and complexity can affect CFP. Our findings suggest that CSR can help firms increase CFP when they are unable to compete intensively and that the effect of competitive complexity on CFP is enhanced when combined with CSR. Following recent research (Kim, Kim, and Qian, 2018), we demonstrate that competitive actions are an important contingency to consider in the relationship between CSR and CFP.

**DRIVERS OF SA-CA TENSION**

**Linking Paradox and Competitive Dynamics Perspectives to CSR**

The concept of paradox refers to “contradictory yet interrelated elements that exist simultaneously and persist over time” (Smith & Lewis, 2011: 382) and is a social construction intended to “simplify reality into polarized either/or distinctions that conceal complex interrelationships” (Lewis, 2000: 761). The contradictory “elements…seem logical in insolation but absurd and irrational when appearing simultaneously” (Lewis, 2000: 760). Consequently, Paradox theory has been used to explain how firms can manage a number of organizational contradictions such as exploration and exploitation in innovations (e.g., Smith, 2014), control and collaboration in corporate governance (e.g., Sundaramurthy & Lewis, 2003), and competition and cooperation in alliances (e.g., Das & Ten, 2000). Naturally, the paradox framework has also been used to explain the resource allocation tension between the competing demands of social and profit objectives of firms (Margolis & Walsh, 2003; Smith & Lewis, 2011). Tensions become salient when the elements involve incompatible goals, scarce resources, and short- versus long-term competing needs (Miron-Spektor et al., 2018; Smith & Lewis, 2011). All three elements are at the center of the tension between shareholder and stakeholder perspectives or between CSR and CFP. Hence, we accommodate the shareholder and stakeholder perspectives within a paradox framework but argue that the initial resource allocation tension first comes into play between SA and CA within a competitive dynamics framework.

The core of competitive dynamics perspective is to understand “what specific firms do when they compete with specific rivals” and to study “measurable actions” or competitive actions of firms (Chen & Miller, 2012: 136). Given the focus on actual actions of firms, prior research has identified various types of actions such as new products, pricing, marketing, market entry and exit, acquisitions, and strategic alliances (Ketchen et al., 2004, Smith et al., 2001). In addition, prior research has identified and examined two key attributes of competitive activity of firms: competitive complexity (the variety and novelty of competitive actions) and competitive intensity (the frequency of competitive actions) (Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017; Derfus, Maggitti, Grimm, & Smith, 2008; Ferrier, 2001; Ndofor, Sirmon, & He, 2011). We thus link CSR activities and theorize their differential impact on competitive complexity and competitive activity. Since CSR focuses on pursuing social goals of multiple stakeholders, whereas CA narrowly focuses on financial goals and shareholders’ interests, this duality creates resource allocation tension because both SA and CA compete for the limited operational, human, and financial resources available to firms. The more resources devoted to SA, the less resources available for pursuing CA. However, the contradictory elements between SA and CA, for example, can be synergistic and mutually advantageous by directing attention to both, which can lead to learning and improved performance (Hargrave & Van de Ven, 2017; Smith & Lewis, 2011). Furthermore, the contradictory elements can be synergistic at one level, yet oppositional at another level (Cameron & Quinn, 1988). We next draw on these paradox principles to theorize that CSR can have synergistic effects at one level (i.e., with competitive complexity), thus complementing long-term performance, but oppositional at another level (i.e., with competitive intensity), thus substituting for short-term performance. In doing so, we reconcile or at least relax the paradox between CSR and CFP.

**Attributes of Competitive Activity as Drivers of SA-CA Tension**

***SA and competitive complexity***

A key attribute of competitive activity of firms is competitive complexity, which represents the variety, change, and novelty of a firm’s competitive action repertoire (Connelly et al., 2017). Firms with complex action repertoires can outcompete rivals by continuously “surprising” them with new and different types of competitive moves, which, in turn, hinders rivals’ ability to counterattack in timely fashion (Ferrier, 2001; Ferrier et al., 1999). Action complexity indicates that firms possess a wide range of managerial skills and organizational capabilities (Connelly et al., 2017). It also signals a firm’s ability to learn from diverse experiences as they continuously try new and different competitive approaches. Firms that regularly change their action repertoires also build a favorable reputation over time that enhances the perceived value of their products and services (Basdeo, Smith, Grimm, Rindova, & Derfus, 2006; Miller & Chen, 1996; Ferrier, 2001).

SA can enhance the ability of firms to carry out complex action repertoires. CSR scholars claim that a firm’s commitment to SA can improve its competitiveness by building new capabilities (Baron, 2001; McWilliams & Siegel, 2011). For example, Porter and Kramer (2011) argue that SA improves a firm’s ability to compete by encouraging innovation, enhancing productivity, and facilitating market expansion. Similarly, Harrison, Bosse, and Phillips (2010) submit that “managing for stakeholders” improves a firm’s ability to engage in product and process innovations, increase customer demand and operating efficiency, and respond to environmental uncertainty. Further, Surroca, Tribo, and Waddock (2010) suggest that CSR encourages the development of innovation and human capital, which, in turn, enhances new product and process capabilities. In sum, SA can add valuable and diverse set of resources that can enable firms to carry out novel and different set of competitive actions, thus expanding the complexity of competitive repertoires.

Conversely, we can also expect action complexity to enhance a firm’s incentives to engage in SA. As noted above, firms that carry out complex action repertoires are sensitive to changing customer preferences, and willing to experiment with and exposed to different technologies. Their quest for new and different types of actions increases their motivation to search for innovative and socially responsible initiatives as a way to differentiate from rivals. In addition to the increased motivation to engage in SA, their diverse resource bases enhance the ability to recognize new SA initiatives, to assimilate them with the existing core competences, and to utilize them for developing novel competitive moves (Cohen & Levinthal, 1990). Hence, action complexity can also increase both the motivation and the capability of firms to engage in SA.

In summary, we argue that competitive complexity and SA are complementary rather than conflicting activities that reinforce each other. SA can help firms carry out more complex action repertoires and, conversely, action complexity can increase their motivation and capability to undertake new SA initiatives. Thus, we expect SA and competitive complexity to be positively related with each other.

*Hypothesis 1: SA will be positively related with competitive complexity.*

***SA and competitive intensity***

Research in competitive dynamics has long argued that competitive actions are fundamental to understanding interfirm rivalry, competitive advantage, and performance (Chen & Miller, 2012; Smith, Ferrier, & Ndofor, 2001) and that competitive intensity, which is the frequency of competitive actions, leads to superior performance (Andrevski et al., 2014; D’Aveni, Dagnino, & Smith, 2010; Grimm, Lee, & Smith, 2006). Competitive intensity incorporates time and speed as essential characteristics of a firm’s strategic behavior and reflects the ability to create a series of temporary advantages, delay rival reactions, and charge high profit margins (Ferrier et al., 1999; Nadkarni, Chen, & Chen, 2016; Young et al., 2006). However, firms that compete intensively face acceleration-cost tradeoffs (Pacheco-de-Almeida, 2010). As firms increase competitive intensity, the time for developing new actions decreases. The shorter time between successive actions rapidly increases the costs for developing and executing new competitive actions (Andrevski & Ferrier, 2016). Thus, firms must make substantial resource investments to sustain high levels of competitive intensity. In addition, too frequent development of new actions creates operational inefficiencies and hinders the development of organizational routines (Brown & Eisenhardt, 1997), further increasing the need for additional resources.

SA exacerbates the resource limitation problem. Some research suggests that CSR misappropriates or misallocates resources and managerial attention from more important activities of the firm (Friedman, 1970; Jensen, 2001). In fact, Margolis and Walsh (2003) characterized misappropriation and misallocation as two central concerns of CSR management. Related, other researchers have argued that tradeoffs exist between investing in SA and investing in other activities, and this resource diversion puts a firm at a competitive disadvantage relative to rivals that invests less in SA (Aupperle et al., 1985). Given that firms have finite resources, those allocated to SA will necessarily reduce the resources available for developing and carrying out competitive actions (Harrison & Wicks, 2013). Since both SA and competitive intensity demand organizational, managerial, and financial resources, SA will divert resources away from developing new competitive actions. This diversion will dampen the frequency of competitive actions, thus decreasing competitive intensity. Thus, we can expect that SA and competitive intensity will be negatively associated. Increased investments in one activity will reduce the investments in the other. Accordingly,

*Hypothesis 2: SA will be negatively associated with competitive intensity.*

**Attributes of Competitive Environments as Drivers of SA-CA Tension**

***Resource scarcity***

Scholars in paradox literature have noted that resource scarcity arising from limited time and resources can intensify and increase awareness of tensions (Miron-Spektor, Ingram, Keller, Smith, & Lewis, 2018). Now, in the context of more complex and global environments, organizations and their leaders face pressures to address multiple, competing strategic demands simultaneously (Jarzabkowski & Sillince, 2007; Kraatz & Block, 2008; Smith, Binns, & Tushman, 2010). Rather than choosing between alternatives, long-term performance depends on engaging them both. Yet, as the epigraph suggests, doing so challenges and frustrates senior leaders.

The resource allocation tension between SA and competitive intensity will weaken when firms compete in munificent competitive environments. Environmental munificence refers to the capacity of a competitive environment to support sustained growth (Dess & Beard, 1984). It reflects the scarcity or abundance of resources available in the competitive environment that can constrain or support the growth of firms in that environment. “When resources are abundant, it is relatively easy for firms to survive, and thus, they become more able to pursue goals other than survival” (Castrogiovanni, 1991: 543). Resource-rich environments provide opportunities for accessing new customers and expanding the market share growth. Firms can expand their pool of resources by generating slack resources that can be deployed to meet multiple organizational goals. In addition, in resource-rich environments, firms can easily access resources from external sources through partnerships with other fast-growing firms. In contrast, resource-scarce environments limit firms’ potential for sales growth, thus reducing their available funds for investments in social and competitive programs. Thus, we can expect that the tension between CSR and competitive intensity will be mitigated in munificent environments and aggravated in resource-scarce environments. Whereas high levels of environmental munificence allows for making investments in *both* SA and CA, low environmental munificence constrains firms’ available resources, thus, putting pressure on managers to *choose* either SA or competitive intensity. Thus, the trade-off between SA and competitive intensity will be the most pronounced in resource-scarce environments. Hence,

*Hypothesis 3: Resource-scarce environments will strengthen the negative relationship between SA and competitive intensity. .*

***Hypercompetition***

Hypercompetitive environments are characterized by aggressive competitive interactions among firms in the industry. It is an outcome of a series of actions by rival companies over time in their quest to gain short-lived advantages (D’Aveni, 1994). In such environments, firms frequently attack and counterattack one another with competitive actions such as price cuts, marketing moves or new products. Empirical research consistently finds that firm profitability is negatively associated with the industry-level competitive aggressiveness - the total number of competitive actions initiated by all rivals in a given industry (Derfus et al., 2008; Young, Smith, & Grimm, 1996). Typically, competitive aggressiveness of rivals increases as firms vie for limited pool of resources (Barnet, 1997). In addition, resources become depleted as firms frequently develop and launch new competitive actions without gaining additional sales. A firm’s market share gain triggers aggressive responses by rivals, which leads to a new wave of actions and counteractions that escalates rivalry (Derfus et al., 2008).

Hypercompetitive environments can significantly increase SA-CA tension for two reasons. First, to keep up with the industry aggressiveness, firms must disproportionally invest resources in developing and introducing new competitive actions. Firms that do not match the industry-level aggressiveness will experience financial losses and organizational decline (Andrevski & Ferrier, 2016). As the firm’s limited pool of resources is increasingly used in support of CA, it depletes the resources available for supporting SA. Second, escalated industry rivalry generates frequent and unpredictable environmental changes, which in turn, increases managers’ psychological stress and anxiety. In threatening situations, managers tend to restrict their attention to dominant rather than peripheral cues and focus on their well-learned routines rather than novel initiates (Staw, Sandelands, & Dutton, 1981). Research shows that survival threats draw most of the managerial attention and organizational resources, so managers primarily focus on financial rather than social or other organizational goals (Greve, 2008; Labianca, Fairbank, Andrevski, & Parzen, 2009). In contrast, when firms do not face survival threat, managers shift their attention from competitive to social goals (Labianca et al., 2009). Thus, it is reasonable to expect that in highly aggressive industries, managers will primarily focus their attention and resources on CA at the expense of SA. In contrast, when competitive aggressiveness in an industry is low, they will be more likely to invest in both CA and SA.

In sum, we argue that hypercompetitive environments will strengthen the negative relationship between SA and competitive intensity. Managers will disproportionally focus attention and resources on matching rival aggressiveness, which will exacerbate the resource allocation tension between SA and CA. In contrast, when industry rivalry is low, we would expect firms to deploy more resources and pay greater attention to SA, thus diminishing the tension and the negative relationship between SA and competitive intensity.

*Hypothesis 4: Hypercompetitive environments will strengthen the negative relationship between SA and competitive intensity..*

**SA-CA TENSION AND FINANCIAL PERFORMANCE**

**SA, Competitive Complexity and Long-Term Performance**

Research shows that CSR and action complexity are both expected to have an independent and positive effect on long-term performance. As firms allocate more resources to CSR and explore new technological areas that are not necessarily aligned with the current competitive activity of firms, they expand their knowledge bases (Porter & Kramer, 2011). In addition, SA can extend the organizational capability by expanding into new market segments, developing new advertising campaigns, attract cheaper sources of capital, and forming alliances with new partners (Fernández‐Kranz & Santalo, 2010; McWilliams, Siegel, & Wright, 2006). These CSR-linked investments in recombining and integrating firm resources take longer to impact firm performance (Bridoux, Smith, & Grimm, 2013; Sirmon, Hitt, & Ireland, 2007), suggesting that CSR initiatives are likely to have a delayed effect on firm performance.

Likewise, research in competitive dynamics finds that competitive repertoire complexity positively affects long-term financial performance through three main mechanisms: adaptation, learning, and signaling (Connelly et al., 2017). Exploring and utilizing a broad range of actions enables firms to meet various competitive challenges and adapt to changing environmental conditions. In addition, firms learn from negative and positive experiences with various actions and thus expand their organizational knowledge (Connelly et al., 2017; Easterby-Smith, Crossan, & Nicolini, 2000). Finally, the ability to carry out complex action repertoires signals to customers, investors, suppliers and other stakeholders a wide range of management skills and organizational capabilities, which in turn, leads to favorable perceptions and evaluations of firms’ products and services (Basdeo et al., 2006; Ferrier, et al., 1999). However, learning, signaling and adaptation processes occur over prolonged periods, so the expected effect on firm performance is likely to be stronger in the long run (Connelly et al., 2017).

We argue, however, that the joint effects of SA and competitive complexity on firm long-term performance are not merely additive, but synergistic mainly for two reasons. First, SA can increase financial performance only when firms are capable to use CSR initiatives strategically for improving their competitiveness. Low levels of action complexity indicate that the firm lacks wide-ranging capacity to assimilate and integrate CSR-related learning with its core competitive competences. When firms are unable to carry out diverse and novel actions, they have limited capacity to integrate SA in their action repertoires. Thus, the effect of SA on firm performance, in part, is conditional on competitive complexity: SA will exhibit stronger effect on firm performance when action complexity is high than when action complexity is low. Second, the signaling and reputational benefits of SA can offset the diminishing effects of too much competitive complexity. “If a firm changes its repertoire too quickly, external stakeholders may question whether the firm has a coherent pattern of actions, and thus wonder if it lacks a cohesive strategy” (Connelly et al., 2017: 1155). However, CSR reputation can lessen stakeholders’ concerns with incoherent strategy because SA are expected to diverge, to some extent, from the firm’s core activities. In addition, as was the case with competitive intensity, CSR reputation can enhance the effectiveness of each competitive action by creating favorable perceptions about a firm’s expertise in developing and delivering products and services (Brown & Dacin, 1997).

In summary, over the long-term, SA and competitive complexity can complement each other in explaining financial performance. The effect of SA on performance will be stronger when action complexity is high. In addition, SA will maximize the effect of action complexity on firm performance by offsetting the diminishing effects of excessive complexity. Thus,

*Hypothesis 5: SA and competitive complexity will positively interact in explaining long-term performance (i.e., complementary effect).*

**SA, Competitive Intensity and Short-term Performance**

Although SA can limit the amount of resources allocated to competitive intensity, it can substitute for the decelerated competitive intensity in explaining firm performance. First, excessive competitive intensity generates diminishing returns. As competitive intensity increases and reaches very high levels, the costs of developing and executing competitive actions increase exponentially, exceeding the benefits and diminishing firm performance (Andrevski & Ferrier, 2016). Redirecting some resources towards SA will decelerate the frequency of new competitive actions, preventing extreme competitive intensity, cost escalation and performance decline. In this sense, SA can help firms escape the progressive cycle of head-to-head rivalry (Derfus, Maggitti, Grimm, & Smith, 2008) and find new ways to attract customers without sacrificing profitability. Second, high CSR reputation can enhance the effectiveness of each competitive action. Customers perceive greater value of the products of firms with high CSR reputation (Harrison & Wicks, 2013). Firms can also reduce operational costs owing to the increased employees’ goodwill and improved relations with bankers and investors, which can increase the capacity to reduce prices and offer sales promotions. Further, new market entries can be more successful when potential customers are aware of a firm’s enhanced image with suppliers and customers (Orlitzky, Schmidt, & Rynes, 2003). Thus, although the frequency of new actions might decrease, the effectiveness of each action might increase.

In sum, SA can compensate for the reduced competitive intensity through two mechanisms. First, transferring resources toward SA can prevent excessively aggressive competitive behavior, thus, preventing the costs of extreme action frequency to escalate. Second, the reputational benefits of SA can create favorable perceptions of a firm’s products and services, thus, increasing the effectiveness of each competitive action. Given that competitive intensity primarily affects immediate performance outcomes (Andrevski & Ferrier, 2016; Andrevski et al., 2011; Derfus et al., 2008; Ferrier, Smith, & Grimm, 1999), we expect SA to play an important substitutive role in explaining the relationship between competitive intensity and short-term firm performance. Hence,

*Hypothesis 6: SA and competitive intensity will negatively interact in explaining short-term performance (i.e., substitute effect).*

**METHOD**

**Sample**

Our sample includes all firms for which data was available across three databases: MSCI ESG KLD (referred to as KLD) database for CSR data, RavenPack News Analytics – PR edition (Ravenpack) for identifying and measuring competitive actions, and Compustat for financial data. We use the Universe D dataset from KLD, which has been widely used in prior studies (Zhao & Murrell, 2016), for the CSR measures. This database covers the largest 3,000 publicly traded firms in the U.S over the period 2003-2015. KLD has seven broad CSR categories: community, human rights, employee relations, diversity, product, environment, and governance. Within each of the seven broad categories, there are numerous other sub-categories separated into strengths (positive performance indicators) and concerns (negative performance indicators). KLD evaluates firms on each of the strengths and concerns using a binary system: “1” (presence of or meets the assessment criteria) and “0” (absence of or does not meet the assessment criteria).

We followed recent competitive dynamics research (Connelly et al., 2017) to use RavenPack News Analytics for identifying competitive actions – competitive moves initiated by a firm to improve or defend its market position. RavenPack includes data on firms and events extracted from credible news sources, such as Dow Jones Newswires and Wall Street Journal. The dataset reports the first mention of a competitive action in any news article (see Connelly et al., 2017 for more details). Competitive actions are classified in 8 types of competitive moves: New product, capacity, pricing, marketing, acquisitions, strategic alliances, market expansions and legal actions. The PR edition of RavenPack that is used in this study includes data sources from 2004 to 2015. Previous research has confirmed the validity of RavenPack’s data reporting an estimated coding reliability of 0.93 (Connelly et al., forthcoming).

We merged RavenPack data with KLD and Compustat using each company’s unique CUSIP number. The final sample included 918 firms from 252 industries over 11 years (2005-2015). The panel dataset is unbalanced. The years of data for firms in our data varied from minimum 3 years to maximum of 11 years. Firms with less than two years of data are automatically excluded when estimating panel data models. We lost additional observations when we lagged our independent variables.

**Independent and Dependent Variables**

***SA***: Consistent with previous CSR research, we use the sum of KLD strengths minus the sum of KLD concerns for each firm.

***Competitive complexity***: We followed Connelly et al. (2017) to compute a composite measure of competitive complexity that includes three components, change, novelty and variety. *Change* was computed as Euclidean distance between a firm’s action repertoire in year t+1 and year t: **ED(t−1)t = SQRT [( A1(t−1) − A1t )2 + … ( A8(t−1) – A8t )2**], where A1…A8 indicate the number of actions in categories 1 through 8 in years t-1 and t. *Novelty* was the number of action types in time t+1 that were not used in time t. *Variety* was computed using the Shannon diversity index: **SH = −∑ pi ln pi,** where pi is the proportion of competitive actions in the ith category.

***Competitive intensity***: We computed this variable as a change in the number of competitive actions between year t+1 and year t.

***Financial Performance:*** *We computed short-term performance* asreturn on assets (ROA) in time t+1 computed as net income divided by total assets. L*ong-term performance* was three-year average ROA computed as (ROAt+1 + ROAt+2 + ROAt+3)/3.

***Resource-scarce environments***. We used *industry growth rate* to measure resource scarcity, calculated as (industry revenuesi,t – industry revenuesi,t-1)/ industry revenuesi,t-1.

***Hypercompetitive environments*.** We measured industry-level competitive aggressiveness as (total number of competitive actionsi,t – a focal firm’s number of competitive actionsi,t)/(number of firms). This measure captures the average competitive aggressiveness in a focal firm’s industry.

**Control Variables**

Following previous competitive dynamics research, we controlled for several industry-level and firm-level factors that can influence competitive intensity, competitive complexity, and firm performance (Andrevski & Ferrier, 2016; Andrevski et al., 2011; Connelly et al., 2017; Ferrier et al., 1999; Young, Smith, & Grimm, 1996).

***Industry-level controls***. We controlled for industry concentration, number of rivals and industry growth because they can affect the intensity of rivalry and inter-firm performance differences. *Industry concentration* is the proportion of total revenues generated by the top-four firms in the total industry revenues. *Number of rivals* is total number of firms in a given four-digit SIC industry. We were able to collect industry level data on competitive intensity, which included competitive actions of *all* firms in an industry, regardless of whether or not they entered our sample. *Industry-level competitive intensity* is the total number of competitive actions launched in a given year in a four-digit SIC industry.

***Firm-level controls***. Previous research suggests that competitive and social activities of firms are affected by *firm size* computed as log of total assets, *slack resources* as quick ratio, *financial leverage* as debt-to-equity ratio, and *R&D intensity* as research and development expenses divided by total sales. We used two proxies to control for past performance: *market share* computed as firm revenues divided by total industry revenues and *return on equity* as net income divided by total stockholders’ equity. We did not use a lagged dependent variable (return on assets) to control for past performance to avoid estimation problems caused by the presence of serial correlation between the lagged dependent variable and the error term (Baltagi, 2008).

**Statistical Model**

Our sample included a panel of 918 firms that were clustered within 252 industries over 11 years. Firms’ actions in the same industry are interdependent and influenced by common industry factors. To fit clustered, hierarchical, and short-panel data, we applied multilevel mixed-effects model (xtmixed in Stata) with two levels – firms and industries (by 4-digit sic codes). This model accounts for the cluster-level interdependency of observations and for modeling and estimating within-cluster correlations (Rabe-Hesketh & Skrondal, 2012). In addition, all models include year dummies to control for time-specific factors that influence competitive and social activity of firms.

**RESULTS**

Table 1 presents the descriptive statistics of the main variables. Table 2 reports the effects of SA on competitive intensity and competitive complexity. All independent and control variables are lagged one year. The coefficient of SA in Model 2 is positive and statistically significant (*b* = 0.056; *p*< 0.063), supporting hypothesis 1 that SA and competitive complexity are positively associated (we report two-tailed test). The coefficient of SA in Model 4 is negative and statistically significant (*b* = -0.167; *p*<0.015), providing support for hypothesis 2 that SA and competitive intensity will be negatively associated. Model 5 shows the results for hypotheses 3 and 4. The coefficients for the interaction terms for SA x IG (*b* = 0.116; *p*<0.091) and SA x IA (*b* = -0.181; *p*<0001) are both statistically significant. Figures 1 and 2 show the form of the interactions. The negative relationship between SA and competitive intensity is stronger in resource-scarce environments (low industry growth) and high industry aggressiveness (hypercompetitive environments).

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Table 3 shows the results for the interactions between social activity and competitive intensity/complexity. The coefficient of the interaction between social activities (SA) and competitive complexity in Model 3 (*b* = 0.015; *p*< 0.084) is statistically significant. Figure 3 illustrates that social activities (SA) and competitive complexity has interactive positive effect on long-term performance, supporting Hypothesis 5. Model 6 shows that the coefficient for the interaction between SA and competitive intensity (SA x CI) is negative (*b* = -0.014; *p*< 0.097) and statistically significant, providing support for hypothesis 6. The effect of CSR on short-term performance is stronger at low levels of competitive intensity, suggesting that the substitutive effect of CSR is stronger when the decline in competitive intensity is larger.

**SUPPLEMENTAL ANALYSIS**

Previous competitive dynamics research suggests a more complex interactions between competitive intensity/complexity and CSR than a linear interaction. For example, Andrevski and Ferrier (2016) found an inverted U-shaped relationship between competitive intensity and short-term firm performance and Connelly et al. (2017) found an inverted U-shaped relationship between competitive complexity and long-term firm performance. These findings suggest a possible linear by curvilinear interaction between CSR and both competitive intensity and competitive complexity. Thus, we also tested a quadratic polynomial multilevel panel data model: Z = b0 + b1X + b2Y + b3X2 + b4XY + b5Y2 + e, where X and Y are independent variables and XY is their interaction in predicting a dependent variable Z (Edwards, 2007; Shanock, Baran, Gentry, & Pattison, 2010). The results provide support for linear-by-linear interaction but not for linear-by-curvilinear interaction. These results are available on request.

In addition, Hypotheses 1 and 3 examine the relationship between CSR and competitive complexity and CSR and competitive intensity respectively. We theorized that social and competitive activity can influence each other. However, reversed causality can create estimation problems. For example, assuming that competitive complexity can affect CSR, CSR can be affected by previous competitive complexity before it affects future competitive complexity. Thus, we estimated models with lagged values of competitive complexity and competitive intensity to account for the shared variance between CSR and previous competitive complexity/intensity in predicting future competitive complexity/intensity. The results remained unchanged (results are available on request).

**DISCUSSION**

Our study contributes to the CSR research by examining the debate of whether SA hurts shareholders at the expense of other stakeholders (i.e., shareholder view) or benefits all stakeholders (i.e., stakeholder view). This debate hinges on the competing arguments that CSR can: (1) negatively impact firm performance by diverting managerial attention and resources from the firm’s core activities, and (2) positively impact firm performance by enhancing a firm’s overall capabilities. These contrasting explanations expose a paradoxical tension involving resource allocation between social and competitive activities of firms. Hence, we take a novel approach by integrating competitive dynamics research to reconcile this paradox and argue that CSR can simultaneously increase and decrease competitive activity. More specifically, we show that CSR differentially affects two dimensions of competitive activity: competitive intensity (the number of competitive actions) and competitive complexity (the variety and novelty of competitive actions). Depending on which particular attribute of competitive activity is being examined, CSR plays both substitutive and complementary roles in a firm’s ability to compete effectively. First, while CSR initiatives divert resources away from a firm’s core competitive activities, it can compensate (i.e., substitute effect) for reduced competitive intensity to improve short-term performance. Second, responding to all stakeholders enhances a firm’s capabilities to compete, thus augmenting competitive complexity (i.e., complement effect). Since competitive complexity typically require longer to impact firm performance, this complementary effect improves long-term performance. In addition, our study shows that the SA-CA tension is present only when firms compete with high frequency of competitive actions (rather than complexity of actions) especially in resource-scarce and hypercompetitive environments. By contrast, firms do not experience tension between SA and CA when they compete with complex action repertoires in munificent environment with low competitive aggressiveness.

Thus, we contribute to CSR research by suggesting one way for resolving the paradox or tension between the shareholder and stakeholder perspectives. Consistent with the first perspective, we show that CSR can reduce one attribute of firms’ competitive activity – competitive intensity. Consistent with the stakeholder perspective, CSR enhances another type of competitive behavior – competitive complexity. We also find that CSR can enhance firm performance by substituting for the decreased competitive intensity, and by complementing the ability of firms compete with a wide range of novel competitive actions. We also contribute to competitive dynamics research by introducing CSR as an important antecedent of competitive intensity and complexity. We also show that CSR can enhance the effect of competitive action intensity and complexity on firm performance. Our study also answers the call for more research on *how* CSR influences competitive advantage and performance in addition to research that explores *whether* CSR influences performance. We hope that our study stimulates thought and new research that resides at the intersection of CSR and competitive dynamics.

In fact, Porter and Kramer (2011: 64-65) state that “the presumed tradeoffs between economic efficiency and social progress have been institutionalized in decades of policy choices” and that firms must “move beyond the tradeoffs” and embrace the concept of shared value that can “[expand] the total pool of economic and social value.” Individuals who embrace tensions have a greater propensity to proactively confront them and become comfortable with the disquiet they provoke (Rothenberg, 1979; Smith & Berg, 1986). Instead of being threatened by tensions, they search for effective new ways to continuously manage them. For instance, individuals with a paradox mindset may synthesize learning and performing goals and flexibly maneuver between them (Miron-Spektor & Beenen, 2015).

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**Table 1:** Descriptive Statistics



**Table 2:** Mixed Effects Panel Data Model for Competitive Complexity and Intensity



**Table 3:** Mixed Effects Panel Data Model for Financial Performance



**Figure 1:** Interaction between Social Activity (SA) and Industry Growth

**Figure 2:** Interaction between Social Activity (SA) and Industry Aggressiveness

**Figure 3:** Interaction between Social Activity (SA) and Competitive Complexity

**Figure 4:** Interaction between Social Activities (SA) and Competitive Intensity

1. Scholars have distinguished between paradox and dilemmas and associated tensions with paradox and tradeoffs with dilemmas (e.g., Smith, 2014: 1593) but have described the competing demands of CSR on shareholders and other stakeholders as both tensions and tradeoffs (e.g., Margolis & Walsh, 2003). [↑](#footnote-ref-1)
2. See also <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter> on the increasing importance and value of CSR in practice. [↑](#footnote-ref-2)
3. Since prior research in competitive dynamics has largely not considered CSR activities (or actions) and examined traditional competitive actions such as new product, pricing, marketing, etc., we distinguish CSR activities from traditional competitive actions in order to examine the performance paradox and resource allocation tension between CSR and CFP. [↑](#footnote-ref-3)