# UNTANGLING THE CORPORATE SOCIAL RESPONSIBILITY-FINANCIAL PERFORMANCE PARADOX: THE ROLE OF COMPETITIVE ACTIVITY

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**ABSTRACT**
*A central debate in corporate social responsibility (CSR) research is whether CSR hurt or help shareholders. Our study suggests that this paradoxical tension between social and competitive activities of firms is a manageable resource-allocation decision. By disaggregating competitive activity into its different forms – intensity and complexity – we develop a model that explains how firms can alleviate the resource allocation tension to improve performance. High CSR firms can enhance short-term performance by reconfiguring its resource base and reducing competitive intensity – the frequency of competitive actions. Alternatively, they can increase long-term performance by transforming its resource base and increasing competitive complexity – the variety and novelty of competitive actions. Overall, our empirical findings suggest that the positive effect of CSR on firm performance is conditional on firms' ability to adjust the intensity and complexity of their competitive activity. Our results are robust across competitive environments with different levels of competitive pressure.*

*Key words:* corporate social responsibility, competitive dynamics, paradox, dynamic capabilities, competitive action, competitive complexity, competitive intensity

*JEL classification:* G30

## 1. INTRODUCTION

A key debate in corporate social responsibility (CSR) research is whether a firm's operations, strategy, and goals should primarily reflect the financial 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 (Friedman, 1970; Jensen 2001). Conversely, the stakeholder view proposes that responding to all stakeholders—including shareholders—enhances a firm's ability to increase its competitive advantage and CFP (Donaldson & Preston, 1995; Freeman, 1984). These contrasting explanations of how CSR influences CFP have been described as a paradoxical

tension between social and profit responsibility of firms (Margolis & Walsh, 2003; Smith & Lewis, 2011).

Some scholars emphasize that the primary source of this paradoxical tension is resource scarcity—particularly regarding time and funding (Hahn, Pinkse, Preuss, & Figge, 2015; Miron-Spektor, Ingram, Keller, Schad, Lewis, Raisch, & Smith, 2016; Preston & O'Bannon, 1997; Smith & Lewis, 2011). Owing to a finite pool of resources, firms necessarily face a resource allocation tension because engaging in CSR activities diverts managerial attention and critical resources away from competitive activities which, consequentially, can harm CFP (Aupperle, Carroll, & Hatfield, 1985; Harrison & Wicks, 2013; Jensen, 2001). However, other scholars deemphasize the resource allocation tension and instead posit that CSR activities will facilitate the firm's development of new resources, capabilities, and competitive activities which can enhance CFP. For example, CSR activities can help firms develop new resources and capabilities (Hart, 1995; McWilliams, Siegel, & Wright, 2006; Orlitzky, Schmidt, & Rynes, 2003; Russo & Fouts, 1997), "innovate through using new technologies, operating methods, and management approaches," and "increase their productivity and expand their markets" (Porter & Kramer, 2011: 65), each of which can improve CFP.

These contrasting views suggest that our understanding about the when and how CSR can improve CFP remains incomplete. Our main premise is that CSR can improve CFP when firms are able to mitigate the resource allocation tension. Thus, in this study, we explore: How can firms manage and alleviate the resource allocation tension between CSR and competitive activities to improve CFP? To answer this question, we argue it is critical to account for the heterogeneous nature of competitive activity and its interdependency with CSR.

Competitive dynamics research distinguishes between two types of competitive activity: *competitive intensity*—the frequency of competitive actions—and *competitive complexity*—the variety and novelty of competitive actions (Andrevski, Brass, & Ferrier, 2016; Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017; Derfus, Maggitti, Grimm, & Smith, 2008; Ferrier, 2001; Ndofor, Sirmon, & He, 2011).[1] For each type of competitive activity, firms can reduce the resource allocation tension through different mechanisms. Drawing from dynamic capabilities research (Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, 2007; Helfat, Schilke, Hu, & Helfat, 2018), we advance two such mechanisms: resource reconfiguration and resource transformation.

On the one hand, a high level of competitive intensity exacerbates the resource allocation tension because carrying out a greater number of competitive actions requires more resources for competitive activities and fewer resources for CSR activities. Firms can mitigate this tension by reducing competitive intensity and reallocating resources to CSR activities which reconfigures a firm's resource base. Thus, through a *resource reconfiguration* process, firms can compensate for the reduced competitive intensity to improve short-term CFP. On the other hand, firms can alleviate the resource allocation tension by increasing competitive complexity. The presence of high CSR activity and increased competitive complexity indicates that the firm possesses dynamic capabilities for transforming its resource base and using it to develop new and different types of

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[1] 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 how CSR and competitive activity interact to influence CFP. Also, we refer to CSR activities to include environmental, social, and governance (ESG) activities identified in prior research (e.g., Ioannou & Serafeim, 2015) which corresponds with the dataset used in this study.

competitive actions. Thus, through a *resource transformation* process, firms can simultaneously increase CSR and competitive complexity which, in turn, can improve long-term CFP. Put simply, we argue that firms can benefit from CSR activities to improve CFP when they either decrease competitive intensity or increase competitive complexity through the processes of resource configuration and resource transformation, respectively. In addition, we examine how competitive pressure—a key environmental factor in competitive dynamics research (D'Aveni, 2002; Chen & Miller, 2010; Chen, Su, & Tsai, 2007; Derfus et al., 2008; Young, Smith, & Grimm, 1996)—affects the interactions between CSR and competitive intensity or complexity in explaining CFP. Figure 1 depicts our conceptual model.
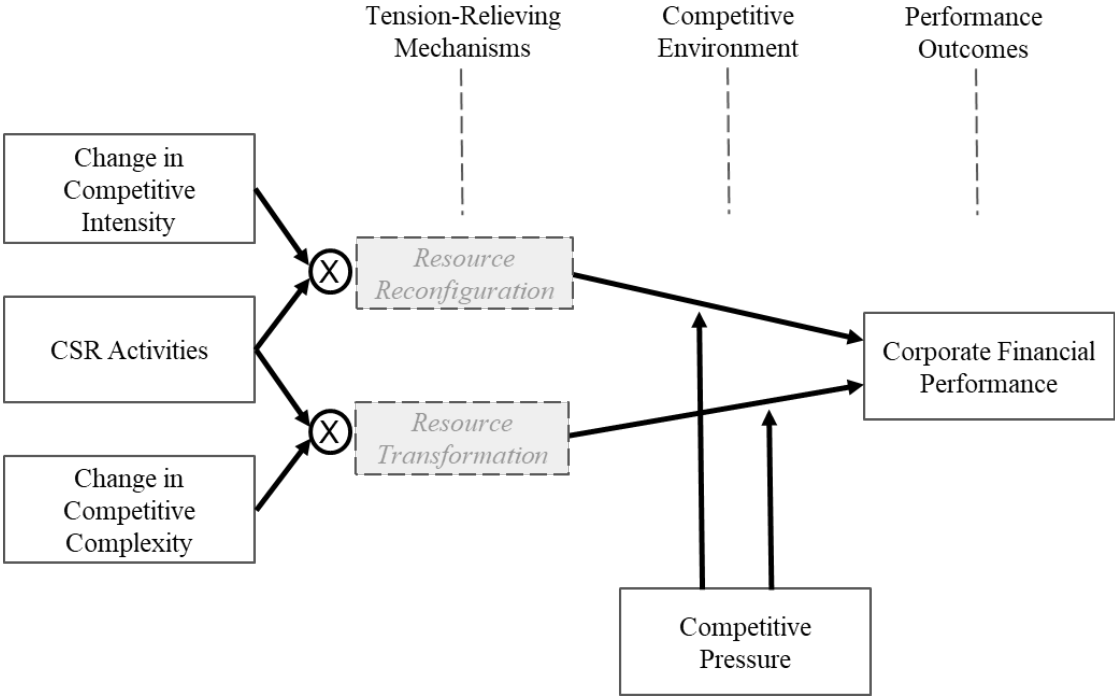


*Figure 1: A Conceptual Model*

We test our theory and hypotheses using datasets from MSCI ESG KLD STATS for CSR scores and RavenPack News Analytics for competitive activity of firms. Consistent with our arguments on the resource reconfiguration effect, we find empirical support that despite a reduction in competitive intensity, firms can improve short-term CFP when they engage in CSR. Also consistent with our arguments on the resource transformation effect, we find that firms improve long-term CFP when they simultaneously engage in CSR and increase competitive complexity in ensuing time periods. In other words, CSR activities can both compensate for a decrease in competitive intensity and facilitate an increase in competitive complexity to improve short- and long-term CFP, respectively. Contrary to expectations, we also find that the interaction effects of CSR with competitive intensity and competitive complexity on CFP are robust across different levels of competitive pressure.

Our study makes two primary contributions. First, we provide a broader, yet more nuanced perspective of the paradoxical tension between CSR and CFP. We move beyond the received wisdom associated with the tradeoff between social and profit objectives by examining the interdependencies between CSR and competitive activities of firms. In doing so, we contribute to

the CSR literature by showing that the paradoxical tension between CSR and CFP relaxes when we consider the heterogeneous nature and role of the firm's competitive activity. We also contribute to competitive dynamics research by exploring how CSR activities and competitive behavior interact to influence short- and long-term CFP. Second, whereas the preponderance of CSR research has explored *whether* CSR influences CFP, we respond to the call for additional research on *when* and *how* CSR influences CFP (Aguinis & Glavas, 2012; Margolis, Elfenbein, & Walsh, 2009, Zhao & Murrell, 2016). By adopting a more fine-grained conceptualization of a firm's competitive strategy and by deconstructing how CSR relates to dynamic capabilities for resource reconfiguration and resource transformation, we provide deeper insights into the mechanisms and the conditions under which CSR will enhance CFP. Taken together, our study advances our understanding of the paradoxical tension between CSR and CFP identified in prior research (Lewis, 2000; Smith & Lewis, 2011).

In the following sections, we present the theory and hypotheses, discuss the methods and results, and conclude with a discussion of the research and managerial implications.

## 2. THEORY AND HYPOTHESES
### 2.1. Linking Competitive Dynamics and Dynamic Capabilities to the Paradoxical Tension between CSR and CFP

The concept of paradox refers to "contradictory yet interrelated elements that exist simultaneously and persist over time" (Smith & Lewis, 2011: 382). As a social construction, a paradox simplifies reality "into polarized either/or distinctions that conceal complex interrelationships" (Lewis, 2000: 761). It typically involves contradictory elements that "seem logical in isolation but absurd and irrational when appearing simultaneously" (Lewis, 2000: 760). Indeed, prior research has identified a number of organizational contradictions as paradoxical tensions such as exploration and exploitation in innovations (e.g., Smith, 2014), control and collaboration in corporate governance (e.g., Sundaramurthy & Lewis, 2003), competition and cooperation in alliances (e.g., Das & Teng, 2000), and automation and augmentation in artificial intelligence (e.g., Raisch & Krakowski, forthcoming).

Naturally, the competing demands of social and profit objectives of firms have also been identified as a paradoxical tension (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). These elements are at the center of the tension between the shareholder and stakeholder perspectives and, by extension, between CSR and CFP. However, seemingly contradictory elements at one level can be synergistic and mutually advantageous at another level (Hargrave & Van de Ven, 2017; Smith & Lewis, 2011). Specifically, the elements that comprise the tension between social and competitive activities can be contradictory if considered at a broader, course-grained level (i.e., competitive activity in general), yet synergistic at a detailed, fine-grained level (i.e., specific types of competitive activity) (Cameron & Quinn, 1988). In line with these views, we argue that the effect of CSR on CFP will depend on the distinct types of competitive activity. Thus, we integrate competitive dynamics research with the CSR research to undertake a fine-grained examination of the resource allocation tension between CSR and two types of competitive activity: *competitive intensity* and *competitive complexity*.

At its core, competitive dynamics provides a theoretical logic and empirical framework to understand "what specific firms do when they compete with specific rivals" and to study "measurable actions" of firms (Chen & Miller, 2012: 136). Given its focus on observed

competitive actions carried out by firms, prior research has studied competitive activity by examining the firm's entire repertoire of competitive actions—composed of new products, pricing, marketing, market entry and exit, acquisitions, strategic alliances, and others—carried out over a given time period (Grimm, Lee, & Smith, 2006; Ketchen, Snow, & Hoover, 2004, Smith, Ferrier, & Ndofor, 2001). The two most extensively studied attributes of a firm's competitive action repertoire are: competitive intensity—the frequency of competitive actions—and competitive complexity—the variety and novelty of competitive actions (Andrevski et al., 2016; Connelly et al., 2017; Derfus et al., 2008; Ferrier, 2001; Ndofor et al., 2011). We argue that these two types of competitive activity are particularly relevant for clarifying the sources of the resource allocation tension and the interdependencies between CSR and competitive activity. In other words, although resources are being redirected away from competitive activity to engage in CSR (the contradiction), CSR can serve to compensate for or augment competitive activity (the synergistic). We also argue that each type of competitive activity works through distinct mechanisms—*resource reconfiguration* and *resource transformation*—to mitigate the resource allocation tension with CSR. Here, we draw from dynamic capabilities research to illuminate these distinct mechanisms. Given its focus on change in resource base of firms (Eisenhardt & Martin, 2000; Helfat & Peteraf, 2003), research on dynamic capabilities provides a firm theoretical foundation to explain the mechanisms by which CSR influences CFP through changes in competitive intensity and competitive complexity. The concept of dynamic capabilities in general refers to the "capacity of an organization to purposefully create, extend, or modify its resource base" (Helfat et al., 2007:1) and is reflected in the firm's "ability to achieve new and innovative forms of competitive advantage" (Teece et al., 1997: 516). Broadly speaking, dynamic capabilities involve reconfiguration of existing resources and transformation that brings about new resources that create competitive advantage and capture value by way of strategic change (Helfat & Peteraf, 2003; Schilke et al., 2018). Prior research has identified that certain types of resources such as technological and slack are beneficial to dynamic capabilities (Anand, Oriani, & Vassolo, 2010; Danneels, 2008). Similarly, prior research has suggested that CSR activities can help firms develop new resources and capabilities (Hart, 1995; McWilliams, Siegel, & Wright, 2006; Orlitzky, Schmidt, & Rynes, 2003; Porter & Kramer, 2011; Russo & Fouts, 1997).

In light of these studies, we argue that CSR and competitive activities interact to influence CFP through a hierarchy of capabilities: ordinary and higher-order (Collis, 1994, Schilke et al., 2018; Zollo & Winter, 2002).[2] Ordinary capabilities involve reconfiguring a firm's resource base and are employed to improve operational efficiency and effectiveness of competitive actions. These capabilities explain how CSR interacts with competitive intensity to influence CFP. Higher-order capabilities involve transforming a firm's resource base and are deployed to achieve new and innovative forms of competitive actions. These capabilities explain how CSR interact with competitive complexity to influence CFP. We next present our arguments and hypotheses.

## 2.2. Moderating Role of Competitive Intensity and Resource Reconfiguration

Competitive intensity is reflective of organizational capabilities associated with the speed and effectiveness with which the firm develops and executes out a set or series of competitive actions as it strives to create a series of temporary advantages (D'Aveni, Dagnino, & Smith, 2010; Dykes, Hughes-Morgan, Kolev, & Ferrier, 2019; Ferrier, 2001; Ferrier et al., 1999; Nadkarni, Chen, &

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[2]  Scholars in dynamic capabilities have used other terminology to characterize the hierarchy of capabilities such as regular, lower-order, zero-order, and first-order for ordinary capabilities and second-order for higher-order capabilities (Schilke et al., 2018).

Chen, 2016; Young et al., 2006). Firms with the capabilities that support a high level of competitive intensity can overwhelm rivals with a flurry of multiple competitive actions, thus keeping them off balance and delaying their responses which, in turn, improves CFP (D'Aveni, 1994; Ferrier, 2001). Thus, to compete intensively firms need to invest in, leverage, and maintain a significant stock of resources for frequently carrying out competitive actions.

CSR also requires a substantial investment in organizational, managerial, and financial resources to address the range of environmental, social, and/or governance standards expressed by various stakeholders. Since firms have finite resources, those allocated to CSR activities will certainly reduce the resources available for maintaining competitive intensity (Harrison & Wicks, 2013). In this sense, some scholars suggest that CSR misallocates resources and managerial attention from more important core activities of the firm which could put a firm at a competitive disadvantage relative to rivals (Aupperle et al., 1985; Friedman, 1970; Jensen, 2001). In fact, prior research has characterized misallocation as a central concern of CSR (Margolis & Walsh, 2003).

We argue, however, that the reallocation of resources from competitive intensity to CSR is not necessarily a misallocation of resources. Firms can reduce competitive intensity to free up resources for CSR, yet still improve CFP. Certainly, firms cannot survive without some level of competitive intensity since it is a core element of strategy. However, by reallocating and reconfiguring their limited resources, firms can decrease competitive intensity to a point where the benefits of CSR will exceed the costs of reduced competitive intensity. Moreover, as firms shift their resources to CSR, they can reconfigure their existing resource base that can lead to the development of ordinary capabilities that can mitigate the resource allocation tension. Thus, firms can compete successfully through fewer competitive actions in the short-term as CSR activities stimulate ordinary capabilities which generate improvements in operational efficiency and effectiveness (Collis, 1994; Daneels, 2008; Wibbens, 2019; Winter, 2003; Zollo & Winter, 2002). This CSR-stimulated resource reconfiguration process can improve operational efficiency and effectiveness in several ways. First, high frequency of actions reduces the time required to develop and execute new actions. The shorter time between successive actions creates operational inefficiencies and leads to self-cannibalization, which in turn generate diminishing returns (Andrevski & Ferrier, 2019; Pacheco-de-Almeida, 2010). Redirecting some resources towards CSR will decelerate the frequency of competitive actions and thus reduce the operational costs. Second, by redirecting resources toward CSR, firms can reduce their aggressiveness toward rivals which can deter retaliation and de-escalate rivalry (Derfus et al., 2008). Given that a high level of competitive intensity requires a significant resource commitment, firms that carry out less intense attacks and counterattacks against its rivals could experience a significant decrease in costs. Third, previous research suggests that CSR activities can decrease costs and increase productivity by reducing turnover and training costs and by increasing employee involvement in developing socially responsible solutions (Harrison, Bosse, & Phillips, 2010; Porter & Kramer, 2011; Surroca, Tribo, & Waddock, 2010). Finally, a firm's reputation for CSR can also enhance the effectiveness of competitive actions as customers perceive greater value of the products of firms they believe are committed to CSR (Harrison et al., 2010; Harrison & Wicks, 2013). For example, owing to increased goodwill and improved relations with stakeholders such as investors, suppliers, and distributors, firms can reduce operational costs and offer more competitive prices and sales promotions. New product introductions and market entries can also be more successful when potential customers are aware of a firm's enhanced image with suppliers and customers (Orlitzky, Schmidt, & Rynes, 2003). The increased effectiveness of each competitive action can partially compensate for a reduction in the total number of competitive actions carried out.

Taken together, we argue that when firms decrease competitive intensity and reallocate resources to CSR, the interaction effect of CSR and competitive intensity will increase CFP. Conversely, owing to a heightened resource allocation tension, CFP will likely decrease when firms attempt to increase competitive intensity while maintaining its current level of CSR. Put simply, while there exists a resource allocation tension between CSR and competitive intensity, CSR can compensate for declining competitive intensity to improve CFP. Thus, we offer the following hypothesis:

*H1a: CSR and change in competitive intensity will interact in explaining CFP such that the relationship between CSR and CFP will be positive when firms decrease competitive intensity.*

We also argue that the interactive effect of CSR and decreased competitive intensity will primarily affect short-term CFP. Decreasing competitive intensity will reduce operational inefficiencies and the overall costs of developing new actions which can directly improve CFP. This prediction concurs with previous competitive dynamics research that finds competitive intensity to affect mainly short-term CFP (Andrevski & Ferrier, 2019; Andrevski et al., 2014; Derfus et al., 2008; Ferrier et al., 1999). In the long-term, however, although high CSR can prevent declining CFP, it cannot fully compensate for decreased competitive intensity. The ordinary capabilities that arise from reconfiguring the resource base and shifting resources from competitive intensity to CSR can allow firms to benefit in the short-term, but less so in the long-term (Helfat et al., 2007; Rahmandad, 2012; Winter, 2003). Thus, we hypothesize the following:

*H1b: The interaction between CSR and change in competitive intensity will be stronger for short-term than long-term CFP.*

## 2.3.    Moderating Role of Competitive Complexity and Resource Transformation

Previous research finds that firms can outcompete rivals when they increase competitive complexity (Connelly et al. 2017; Ferrier et al., 1999; Ndofor et al., 2011; Yu, Subramaniam, & Cannella, 2009). However, increasing competitive complexity does not require a firm to carry out a greater number of competitive actions. For example, a firm can carry out a fewer number of competitive actions from one year to the next, but carry out a more novel, diverse repertoire of competitive actions in ensuing years. Thus, in principle, a firm can simultaneously decrease intensity and increase complexity of its action repertoire. In addition, these two types of competitive activities differ in the type of resources they need for their execution. Whereas increasing competitive intensity requires *more* resources of the same kind, increasing competitive complexity requires *different* resources. An increase in competitive complexity indicates that the firm possesses higher order dynamic capabilities for transforming its resource base by developing and leveraging new knowledge and competencies (Collis, 1994; Daneels, 2008; Wibbens, 2019; Winter; 2003; Zollo & Winter, 2002). Therefore, a high CSR firm that increases competitive complexity is capable of not only meeting the stakeholder demands for more CSR, but also transforming its resource base for competitive advantage and financial gain.

This resource transformation process, which is initiated by CSR activities, can enhance a firm's ability to carry out new and innovative types of competitive actions in several ways. Prior research suggests that a firm's commitment to CSR can improve its competitiveness by developing and leveraging new capabilities (Baron, 2001; Cohen & Levinthal, 1990; McWilliams & Siegel, 2011). For example, firms can integrate employees with various social, environmental, and competitive expertise to find green solutions or reduce operational waste and thus differentiate their products. Firms can also form new alliance ties with various stakeholders to develop diverse knowledge and resources that facilitate the creation of new action types, and a more complex repertoire (Gnyawali,

Madhavan, & He 2016). Transforming and exploiting acquired external knowledge is critical for improving a firm's competitive position and CFP (Zahra & George, 2002). For example, CSR can stimulate product and process innovations and facilitate new market expansions (Harrison et al., 2010; Porter & Kramer, 2011; Surroca et al., 2010). Finally, developing, replicating, and transferring successful CSR practices across the firm's departments and business units can also generate innovative ways to outcompete rivals (Eisenhardt & Martin, 2000). Conversely, when firms decrease competitive complexity despite high investments in CSR activities, they fail to use and exploit their investments in CSR for competitive advantage.

The mutually reinforcing effects of CSR and increased competitive complexity can improve CFP through three mechanisms: adaptation, learning, and signaling (Connelly et al., 2017). A broad range of actions enables firms to meet various competitive challenges and adapt to changing environmental conditions. Firms can "surprise" rivals with new and different types of competitive moves and, thus, hinder their ability to counterattack in timely fashion (Ferrier, 2001; Ferrier, Smith & Grimm, 1999). In addition, firms can learn faster from both positive and negative experiences with various new action types, thereby broadening their knowledge base critical for future competitive actions (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 that the firm possesses a wide range of management skills and organizational capabilities that contribute to favorable customer perceptions and evaluations of the firm's products and services (Basdeo, Smith, Grimm, Rindova, & Derfus, 2006; Ferrier, et al., 1999).

In addition, the signaling and reputational benefits of CSR can reduce the costs of developing diverse and novel set of competitive actions. "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). Firms with high CSR reputation can temper these concerns because those firms are expected to diverge, to some extent, from the firm's core activities by developing and adopting new technologies, organizational practices, and management approaches (Porter & Kramer, 2011). As noted earlier, 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). CSR investments can also facilitate new advertising campaigns, attract cheaper sources of capital, or form alliances with new partners (Fernández-Kranz & Santalo, 2010; McWilliams, Siegel, & Wright, 2006).

In summary, the effect of CSR on CFP is conditioned by the firm's ability to increase competitive complexity. CSR investments can improve CFP when firms can transform and leverage a newly expanded resource base to develop and carry out a novel and more diverse repertoire of competitive actions. Increased competitive complexity indicates that the firm possesses dynamic capabilities for sensing and seizing opportunities for new competitive actions (Teece, 2007). Additionally, reputational and signaling benefits of CSR can decrease the costs of increased competitive complexity. Put simply, we expect a synergistic relationship between CSR and competitive complexity: CSR will exhibit a positive relationship with CFP when firms increase competitive complexity, and a negative relationship when they decrease competitive complexity. Conversely, when firms are unwilling or incapable of carrying out a more diverse and novel set of competitive actions, they have limited capacity to explore and leverage ideas and insights from CSR in their action repertoires. Thus, we offer the following hypothesis:

*H2a: CSR and change in competitive complexity will interact in explaining CFP such that the relationship between CSR and CFP will be positive when firms increase competitive complexity.*

The benefits of increased competitive complexity and high CSR are more likely to be realized over the long-term. The key mechanisms through which competitive complexity generates benefits for firms—learning, signaling, and adaptation—take time to realize and improve CFP (Connelly et al., 2017). Additionally, integrating CSR with the core resources and transforming them to produce complex actions take longer time to impact CFP (Bridoux, Smith, & Grimm, 2013; Sirmon, Hitt, & Ireland, 2007). Likewise, the reputational and signaling benefits of CSR are more likely to have prolonged effect on future CFP. Finally, the processes associated with resource transformation and the change in competitive activities they bring about take time to affect CFP (Rahmandad, 2012; Helfat & Martin, 2015; Schilke et al., 2018). Thus, we expect that the synergistic effects of CSR and competitive complexity will be stronger for long-term CFP than short-term CFP. Thus, we hypothesize that:

*H2b: The interaction between CSR and change in competitive complexity will be stronger for long-term than short-term CFP.*

## 2.4. The Moderating Role of Competitive Pressure: Three-Way Interactions

A defining feature of competitive dynamics research is *relativity* or "the notion that a firm's strategy and market position must be examined within the context of and vis-à-vis its competitors' strategies and positions" (Chen & Miller, 2010: 6). When competitive pressure is high, an individual firm's actions will escalate rivalry by provoking aggressive reactions from rivals that leads to successive waves of actions and counteractions (Derfus et al., 2008 Young et al., 1996). The level of competitive pressure—the average number of rivals' competitive attacks in a given industry—strongly affects a firm's strategic choices between CSR and competitive activities. Given that firm profitability is negatively associated with the level of competitive pressure (Young et al., 1996), escalating industry-wide rivalry generates frequent and unpredictable environmental changes, thereby increasing 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 rather than novel actions (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 a survival threat, managers tend to shift their attention from competitive to social goals (Labianca et al., 2009).

***Competitive pressure and resource reconfiguration.*** We expect that high levels of competitive pressure will make the resource reconfiguration process more important, but more costly. Typically, competitive pressure requires firms to spend increasingly more resources just to maintain competitive parity (Derfus et al., 2008; Barnett, 1997). Yet, resources are quickly depleted in such environments as firms frequently develop and launch new competitive actions without gaining competitive advantage. To keep up with the intense competitive pressure, firms must disproportionally invest resources that support carrying out more competitive actions. Firms that do not match the aggressiveness of rivals will experience declining CFP (Andrevski & Ferrier, 2019). Thus, when firms experience strong competitive pressure, they will primarily use their

limited resources in support of competitive activities, consequently constraining the resources available for engaging in CSR activities.

As competitive pressure increases, a decrease in the focal firm's level of competitive intensity and the reallocating those resources towards CSR will likely result in a quick and significant decline in CFP. Even if decreasing competitive intensity could yield benefits, as we highlighted above, it is unlikely to compensate for the fast erosion of a firm's market and financial position. In addition, the reputational and signaling benefits of CSR are not likely to compensate for the immediate financial losses caused by the frequent rival attacks. Finally, as industry-level rivalry escalates, a decrease in the focal firm's competitive intensity will not likely signal to or incentivize rivals to pull back on their own levels of competitive intensity. Indeed, a focal firm's decision to decrease competitive intensity is likely to be seen by rivals as a signal of weakness, thereby motivating rivals to escalate their attacks.

High levels of competitive pressure generates survival threats that increase managers' anxiety and restricts their attention to the dominant financial goals. Hence, declining competitive intensity and reallocating resources toward CSR activities will be very costly. Thus, we expect that the costs of declining competitive intensity in environments characterized as having high levels of competitive pressure will exceed the benefits, thereby reducing CFP. In contrast, when competitive pressure is low, firms are less likely to suffer substantial decline in CFP from reducing competitive intensity. As a result, the benefits of declining competitive intensity will exceed the costs, enhancing the effect of CSR on CFP.

*H3a: There is a three-way interaction between CSR, change in competitive intensity, and competitive pressure in explaining short-term CFP. That is, the effect of the interaction between CSR and change in competitive intensity on short-term CFP will be weaker when competitive pressure is high and stronger when competitive pressure is low.*

***Competitive pressure and resource transformation.*** As noted above, environments that exhibit a high level of competitive pressure increase the resource allocation tension (Barnett, 1997). Rivals respond and try to neutralize the focal firm's competitive actions quickly, thereby increasing the costs of competition while constraining resources available for CSR. Such competitive conditions increase the resource allocation tension. We argue, however, that competitive pressure will have weaker moderating effect on the interaction between CSR and competitive complexity than on the interaction between CSR and competitive intensity on CFP. As noted earlier, competitive complexity requires the development of different types of resources, but not necessarily more resources of the same general type. Thus, when firms invest in CSR activities and are able to transform their resource base they can compete with rivals by carrying out nonmatching and dissimilar action types and avoid direct competitive confrontations with rivals which, consequently, reduces rivals' motivation and capability to retaliate (Brandenburger & Nalebuff, 1996; Connelly et al., 2019). A repertoire that consists of novel and diverse range of action types can delay rival responses which can also improve CFP. Thus, through increased competitive complexity, firms can escape the intense and progressive cycle of profit-killing head-to-head rivalry (Derfus et al., 2008).

In summary, although competitive pressure is likely to have an overall negative affect on industry profitability, an increase in competitive complexity and CSR might prevent, or at least slow, a decline in CFP. Hence, compared to the effect of competitive pressure on the interaction between CSR and increased competitive intensity, competitive pressure will have weaker moderating effect on the interaction between CSR and increased competitive complexity.

*H3b: Competitive pressure will have stronger effect on the interaction between CSR and competitive intensity than on the interaction between CSR and competitive complexity.*

## 3.    METHOD
### 3.1.    Sample
Our sample includes all firms for which data were available across three databases: (1) MSCI ESG KLD STATS (referred to as KLD) for CSR activity; (2) RavenPack News Analytics – PR edition (referred to as RavenPack) for competitive activity; and (3) Compustat for financial data. For our CSR measures, we use the Universe D dataset from KLD which has been widely used in prior studies (e.g., Ioannou & Serafeim, 2015; Zhao & Murrell, 2016), for. This database covers the largest 3,000 publicly traded firms in the U.S over the period 2003-2015. We start with this period because KLD first expanded its coverage in 2003 to approximately the largest 3,000 publicly traded U.S. firms in market value. 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). For instance, within the social category, "community engagement" is a *strength* sub-category while "impact on local communities" is a *concern* sub-category.

We followed recent competitive dynamics research (Connelly et al., 2017; Connelly, Lee, Tihanyi, Certo, & Johnson, 2019) to use RavenPack for identifying competitive actions or competitive moves initiated by a firm to improve or defend its market position against rivals. RavenPack includes data on firms and events extracted from credible news sources such as Dow Jones Newswires and the Wall Street Journal, and daily press releases and regulatory disclosures from numerous newswires. The dataset reports the first mention of a competitive action in any news article (see Connelly et al., 2017 for more details). Following Connelly et al. (2017) and prior competitive dynamics research, we included eight types of competitive actions: new product, capacity, pricing, marketing, acquisitions, strategic alliances, market expansions and legal actions in our analysis. The PR edition of RavenPack used in this study includes data sources from 2004 to 2015. Previous research has confirmed the validity of RavenPack's data at an estimated coding reliability of 0.93 (Connelly et al., 2019).

We merged RavenPack data with KLD and Compustat North America annual data using each company's unique CUSIP number. The final sample includes 918 firms from 252 industries over 11 years (2005-2015). Our sample is broadly distributed across industries, and no industry represented more than 7.04% of the total observations. 39% of the observations were from S&P 500 companies and 54% from S&P 1500 companies. The panel data is unbalanced. The years of data for firms 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.

### 3.2.    Dependent Variable
***Corporate financial performance.*** We computed short-term CFP in time *t+1* as return on assets (ROA): net income divided by total assets (Derfus et al., 2008; Nadkarni et al., 2015; Thomas & D'Aveni, 2009). Long-term CFP was three-year average of ROA computed as ($ROA_{t+1}$ + $ROA_{t+2}$ + $ROA_{t+3}$)/3 (Connelly et al., 2017). Higher values in both measures indicate higher CFP. We multiplied both variables by 10 to interpret the regression coefficients within two decimals. We also removed outliers from both variables using 1% and 99% cutoff because previous research that

has examined the relationship between CSR and CFP suggests that extreme values of ROA can bias the estimated coefficients (Zhao & Murrell, 2016).

### 3.3. Independent Variables

*CSR*. We consider CSR activities broadly and use the sum of KLD strengths minus the sum of KLD concerns across all categories of environmental, social, and governance (ESG) issues for each firm. This net approach to measure CSR has been used in prior research and reflects the firm's ability to manage environmental, social, and governance risks and opportunities in year *t*. (Gupta, Briscoe, & Hambrick, 2017; Hubbard, Christensen, & Graffin, 2017). One hundred and forty KLD research analysts evaluate a large research data collected from academic, government, and NGO datasets along with 1,600 media sources and company reports (e.g., 10-K and sustainability reports). The analysts assess whether each firm meets criteria based on 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). This variable ranges from -10 to 19 (mean 0.23; SD 3.28). The higher values of this variable indicate higher ability of a firm to meet ESG standards, indicating a high level of CSR activity in year *t*.

***Change in competitive intensity***: We computed this variable as the number of competitive actions in year *t* minus the number of competitive actions in year *t-1*. Higher positive values indicate increasing competitive intensity relative to the previous year. A standard measure of competitive intensity in competitive dynamics research is the total number of actions in a given year (not the *change* in competitive intensity) (e.g., Young et al., 1996). However, in our study we do not theorize or empirically examine whether the relationship between CSR and CFP is stronger for firms with *low levels* of competitive intensity (action volume) than for firms with *high levels* of competitive intensity. Rather, we examine whether CSR-CFP relationship becomes stronger when firms *decrease competitive intensity* (confronted with resource-allocation tradeoffs) while controlling for the total number of competitive actions (action volume) carried out by the firm.

***Change in competitive complexity***: We followed Connelly et al. (2017) to compute a composite measure of competitive complexity that includes three components: Competitive repertoire variability, novelty and diversity. *Variability* refers to the changes of a firm's competitive repertoire over time. We computed variability as Euclidean distance between a firm's action repertoire in year *t* and year *t-1*: $ED_{t\,(t-1)} = SQRT\,[(A1_t - A1_{(t-1)})^2 + \ldots (A8_t - A8_{(t-1)})^2]$, where **A1…A8** indicate the number of actions in categories 1 through 8 in years *t* and *t-1*. *Novelty* was the number of action types in time *t* that were not used in time *t -1*. *Diversity* refers to the range of action types in a firm's action repertoire. We computed diversity using Shannon diversity index: $SH = -\sum p_i \ln p_i$, where $p_i$ is the proportion of competitive actions in the $i_{th}$ category. Change in diversity was $SH_t - SH_{(t-1)}$. Finally, we standardized and added the three components—variability, novelty and diversity—to arrive at a composite measure of change in competitive complexity. Higher values indicate the firm's increase in competitive complexity from one year to the next.

***Discriminant validity.*** The measures of competitive intensity and competitive complexity are distinct and vary independently from the measure of CSR. As described above, competitive intensity and complexity are computed as the number and variety/novelty of competitive actions in a given year. In contrast, our measure of CSR is based on the assessments of experienced research analysts from KLD on a set of positive and negative performance indicators for each year in our sample. Thus, CSR indicates the firm's ability to meet ESG standards in year *t*, but it reflects a firm's investments intended to meet ESG standards in year *t* and the previous years. Thus, it is a measure of the overall CSR value of a firm in a given year. Our competitive activity variables are computed as change in competitive intensity and complexity from year *t-1* and year *t*. We examine

how increase or decrease in competitive intensity/complexity affects the relationship between CSR and CFP.

CSR indicators can be unrelated or related to particular competitive moves. For example, initiatives such as establishing relations with indigenous people (listed as strength) and cooperating with repressive governments that violate human rights (listed as concern) can be unrelated to specific competitive moves, like price cuts, new product introductions, and so on. Other CSR indicators can operate within the same general domain with some specific competitive moves. For example, indicators as to whether the firm makes use of environmentally friendly materials or whether the manufacturing process cause toxic emissions and waste could conceivably be associated with the new products. However, even in those cases, CSR and competitive activity are conceptually orthogonal and empirically independent: CSR captures *outsiders' assessments of the environmental impact* of the firm's activities related to its use of environmentally friendly materials, whereas competitive activity captures the frequency and complexity of *specific, observable competitive moves* perhaps associated with the introduction of a new product composed of environmentally friendly materials.

### 3.4. Moderating Variable

***Competitive pressure.*** We collected industry level data on competitive actions which included competitive actions of *all* firms in an industry regardless of whether or not they were represented in our sample. Informed by prior research (Young et al., 1996), we computed competitive pressure as: (Total number of competitive actions in the industry$_{i,t}$ minus the focal firm's number of competitive actions$_{i,t}$)/(number of firms in the industry$_{i,t}$). This measure indicates rivals' average competitive aggressiveness in a focal firm's industry. Higher values indicate greater competitive pressure.

**Control Variables**

Following previous competitive dynamics research, we controlled for several typical industry-level and firm-level factors that can influence competitive intensity, competitive complexity, and CFP (Andrevski & Ferrier, 2019; Connelly et al., 2017; Ferrier et al., 1999; Young et al., 1996).

***Industry-level controls***. We controlled for environmental munificence, industry concentration, and number of rivals in a focal firm's industry because they can affect the intensity of rivalry and inter-firm CFP differences (Porter, 1980). We measured environmental munificence as *industry growth rate* calculated as (industry revenues$_{i,t}$ minus industry revenues$_{i,t-1}$)/(industry revenues$_{i,t-1}$), and i*ndustry concentration* using Herfindahl-Hirschman Index: $HHI = 1 - \Sigma_i p_i^2$, where $p_i$ is the market share of firm $i$ (Ferrier et al., 1999). *Number of rivals* was total number of firms in a given four-digit SIC industry (Andrevski & Ferrier, 2019). In addition, we included our moderator—*competitive pressure*—as a control variable in all models.

***Firm-level controls***. We controlled for several firm-specific factors that can be associated with CFP and CSR/competitive activities. *Market share* was firm revenues divided by total industry revenues, *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 (Andrevski & Ferrier, 2019). In addition, we controlled for a firm's action volume: total number of competitive actions carried out by a focal firm in a given year (Derfus et al., 2008). Firms with high and low action volume might differ in their ability or inclination to increase or decrease competitive intensity in the next year. Finally, we control for a lagged dependent variable (i.e., lagged ROA) in all models to increase the confidence in the causality of the hypothesized relationships (Makadok, 1998).

**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 a 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 can influence CFP.

## 4.    RESULTS

Table 1 presents the descriptive statistics of the main variables. Table 2 reports the regression coefficients of the independent and control variables which are lagged one year. The year dummies are collectively significant ($p < 0.031$).

| | Variables | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Short-term performance (ROA) | 0.54 | 0.74 | 1.00 | | | | | | | | | | | | | | | | | | |
| 2 | Long-term performance (3-year avg. ROA) | 0.56 | 0.72 | 0.72 | 1.00 | | | | | | | | | | | | | | | | | |
| 3 | CSR | 0.50 | 3.41 | 0.17 | 0.19 | 1.00 | | | | | | | | | | | | | | | | |
| 4 | Change in competitive complexity (CC) | 0.13 | 1.89 | 0.03 | 0.05 | 0.14 | 1.00 | | | | | | | | | | | | | | | |
| 5 | Change in competitive intensity (CI) | -0.04 | 5.27 | -0.02 | -0.02 | -0.07 | 0.17 | 1.00 | | | | | | | | | | | | | | |
| 6 | Competitive pressure (CP) | 2.06 | 1.81 | -0.07 | -0.07 | 0.10 | 0.13 | 0.05 | 1.00 | | | | | | | | | | | | | |
| 7 | CSR x CI | -0.10 | 2.12 | -0.05 | -0.03 | -0.09 | -0.15 | 0.43 | -0.02 | 1.00 | | | | | | | | | | | | |
| 8 | CSR x CC | 0.20 | 1.63 | 0.07 | 0.10 | 0.35 | 0.25 | -0.18 | 0.10 | -0.21 | 1.00 | | | | | | | | | | | |
| 9 | CSR x CI x CP | -0.10 | 4.03 | -0.02 | 0.00 | -0.05 | -0.14 | 0.33 | 0.02 | 0.66 | -0.17 | 1.00 | | | | | | | | | | |
| 10 | CSR x CC x CP | 0.27 | 2.63 | 0.05 | 0.06 | 0.27 | 0.23 | -0.19 | 0.24 | -0.19 | 0.58 | -0.19 | 1.00 | | | | | | | | | |
| 11 | Environmental munificence | 0.05 | 0.15 | 0.02 | 0.00 | -0.02 | -0.01 | 0.01 | -0.01 | 0.00 | 0.01 | -0.01 | 0.00 | 1.00 | | | | | | | | |
| 12 | Industry concentration | 0.25 | 0.20 | 0.00 | -0.01 | 0.02 | -0.03 | 0.00 | 0.18 | 0.01 | -0.05 | 0.03 | 0.01 | -0.02 | 1.00 | | | | | | | |
| 13 | Number of rivals | 87.94 | 110.12 | -0.02 | 0.04 | 0.03 | 0.02 | -0.02 | 0.11 | -0.03 | 0.10 | -0.01 | 0.02 | 0.07 | -0.42 | 1.00 | | | | | | |
| 14 | Market share | 0.14 | 0.22 | 0.09 | 0.08 | 0.18 | 0.07 | -0.02 | 0.06 | -0.03 | 0.05 | 0.00 | 0.09 | -0.03 | 0.65 | -0.37 | 1.00 | | | | | |
| 15 | Firm size | 7.89 | 1.78 | 0.16 | 0.15 | 0.38 | 0.24 | -0.03 | 0.01 | -0.08 | 0.18 | -0.05 | 0.17 | 0.00 | 0.04 | -0.14 | 0.40 | 1.00 | | | | |
| 16 | Slack resources | 2.09 | 2.05 | -0.02 | -0.10 | -0.09 | -0.08 | -0.02 | 0.07 | -0.01 | -0.01 | -0.01 | -0.01 | 0.01 | -0.12 | 0.18 | -0.22 | -0.37 | 1.00 | | | |
| 17 | Financial leverage | 0.85 | 44.73 | -0.04 | 0.00 | 0.01 | 0.03 | 0.00 | 0.01 | -0.01 | -0.01 | -0.02 | 0.01 | -0.02 | 0.03 | -0.01 | 0.01 | 0.03 | -0.01 | 1.00 | | |
| 18 | R&D intensity | 0.07 | 0.24 | -0.15 | -0.19 | -0.01 | -0.02 | -0.01 | 0.08 | 0.00 | 0.01 | -0.01 | 0.01 | 0.00 | -0.07 | 0.21 | -0.13 | -0.16 | 0.19 | 0.00 | 1.00 | |
| 19 | Action volume | 7.90 | 13.55 | 0.08 | 0.09 | 0.30 | 0.42 | 0.10 | 0.39 | -0.15 | 0.42 | -0.10 | 0.42 | 0.02 | -0.05 | 0.14 | 0.10 | 0.36 | -0.05 | 0.00 | 0.03 | 1.00 |

*Note*: Coefficients higher than 0.03 or lower than -0.03 are statistically significant at $p < 0.05$.

*Table 1: Descriptive Statistics*

| | Short-term Performance (ROA) | | | | Long-term Performance (3-year Avg ROA) | | | |
|---|---|---|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 |
| Lagged DV | 0.222** | 0.222** | 0.221** | 0.221** | 0.675** | 0.677** | 0.675** | 0.678** |
| | (0.032) | (0.033) | (0.032) | (0.032) | (0.044) | (0.044) | (0.044) | (0.044) |
| CSR | 0.034* | 0.033* | 0.033* | 0.031* | 0.020* | 0.021* | 0.018* | 0.019* |
| | (0.014) | (0.014) | (0.013) | (0.013) | (0.009) | (0.009) | (0.009) | (0.008) |
| Change in competitive intensity (CI) | | -0.009 | -0.002 | 0.012 | | 0.005 | 0.007 | 0.013 |
| | | (0.007) | (0.009) | (0.011) | | (0.004) | (0.006) | (0.009) |
| Change in competitive complexity (CC) | | 0.004 | 0.001 | 0.001 | | 0.002 | 0.000 | 0.001 |
| | | (0.009) | (0.009) | (0.011) | | (0.008) | (0.008) | (0.010) |
| Competitive pressure (CP) | -0.041** | -0.041** | -0.041** | -0.045** | -0.020+ | -0.020+ | -0.020+ | -0.020 |
| | (0.012) | (0.012) | (0.013) | (0.013) | (0.011) | (0.011) | (0.011) | (0.013) |
| CSR x CI | | | -0.009** | -0.016** | | | -0.001 | -0.003 |
| | | | (0.003) | (0.004) | | | (0.004) | (0.004) |
| CSR x CC | | | 0.000 | 0.000 | | | 0.007* | 0.008+ |
| | | | (0.006) | (0.007) | | | (0.004) | (0.004) |
| CSR x CP | | | | 0.006 | | | | 0.001 |
| | | | | (0.006) | | | | (0.006) |
| CI x CP | | | | -0.011* | | | | -0.004 |
| | | | | (0.005) | | | | (0.004) |
| CSR x CI x CP | | | | 0.006** | | | | 0.003 |
| | | | | (0.002) | | | | (0.003) |
| CC x CP | | | | 0.003 | | | | -0.001 |
| | | | | (0.006) | | | | (0.007) |
| CSR x CC x CP | | | | -0.002 | | | | -0.002 |
| | | | | (0.002) | | | | (0.002) |
| Environmental Munificence | 0.012 | 0.012 | 0.012 | 0.012 | -0.008 | -0.008 | -0.008 | -0.007 |
| | (0.010) | (0.009) | (0.009) | (0.010) | (0.007) | (0.007) | (0.007) | (0.007) |
| Industry concentration | -0.004 | -0.003 | -0.003 | -0.003 | 0.015 | 0.015 | 0.016 | 0.011 |
| | (0.023) | (0.023) | (0.023) | (0.023) | (0.016) | (0.015) | (0.015) | (0.016) |
| Number of rivals | -0.053 | -0.054 | -0.054 | -0.052 | 0.036 | 0.036 | 0.036 | 0.031 |
| | (0.035) | (0.035) | (0.035) | (0.036) | (0.042) | (0.042) | (0.042) | (0.041) |
| Market share | 0.018 | 0.018 | 0.018 | 0.016 | -0.003 | -0.003 | -0.003 | -0.003 |
| | (0.022) | (0.022) | (0.022) | (0.022) | (0.015) | (0.015) | (0.015) | (0.015) |
| Firm size | 0.038 | 0.036 | 0.036 | 0.037 | -0.007 | -0.006 | -0.005 | -0.007 |
| | (0.030) | (0.030) | (0.030) | (0.030) | (0.019) | (0.018) | (0.019) | (0.019) |
| Slack resources | -0.012 | -0.012 | -0.013 | -0.012 | -0.063** | -0.062** | -0.063** | -0.061** |
| | (0.019) | (0.019) | (0.019) | (0.019) | (0.022) | (0.022) | (0.022) | (0.022) |
| Financial leverage | -0.020* | -0.020* | -0.020* | -0.020* | 0.004+ | 0.004+ | 0.005+ | 0.005+ |
| | (0.008) | (0.008) | (0.008) | (0.008) | (0.002) | (0.002) | (0.002) | (0.002) |
| R&D intensity | -2.153** | -2.159** | -2.162** | -2.168** | 0.668 | 0.717 | 0.694 | 0.638 |
| | (0.708) | (0.713) | (0.714) | (0.710) | (1.404) | (1.414) | (1.419) | (1.383) |
| Action volume | 0.029 | 0.032+ | 0.033+ | 0.031+ | 0.022* | 0.020+ | 0.017 | 0.023* |
| | (0.018) | (0.018) | (0.018) | (0.018) | (0.010) | (0.011) | (0.011) | (0.011) |
| _cons | 0.234** | 0.233** | 0.233** | 0.234** | 0.159** | 0.161** | 0.161** | 0.157** |
| | (0.048) | (0.048) | (0.048) | (0.047) | (0.055) | (0.055) | (0.054) | (0.054) |
| N | 3,795 | 3,795 | 3,795 | 3,795 | 2,148 | 2,148 | 2,148 | 2,148 |
| Wald Chi2 | 683.13 | 686.37 | 733.9 | 738.59 | 2052.44 | 2186.34 | 2197.00 | 2428.93 |
| All models include year dummies | | | | | | | | |
| Robust standard errors in parantheses | | | | | | | | |
| +p< 0.10; *p<0.05; **p<0.01 | | | | | | | | |

*Table 2: Mixed Effects Panel Data Model for CFP*

Hypothesis 1a predicted a positive relationship between CSR and CFP when firms decreased the level of competitive intensity. Model 3 shows that the coefficient of the interaction between CSR

and change in competitive intensity (CSR x CI) is negative and statistically significant ($b = -0.009$; $p < 0.003$). Figure 2 depicts the form of the interaction. The effect of CSR on short-term CFP is stronger when firms decrease their competitive intensity. Moreover, the slope of decreased competitive intensity (blue solid line) is statistically significant (*t-value* = 3.007; *p* = 0.003), whereas the slope of increased competitive intensity is not (*t-value* = 1.525; *p* = 0.127), suggesting that CSR affects short-term CFP *only* when firms reduce competitive intensity, thus providing support for H1a. We also find support for H1b which predicts that the negative interaction effect will be stronger for short-term than long-term CFP. Whereas the coefficient for the interaction between CSR and change in competitive intensity (CSR x CI) is significant in predicting short-term CFP (Model 3), it is not so in Model 7 when predicting long-term CFP ($b = -0.001$; $p < 0.842$).
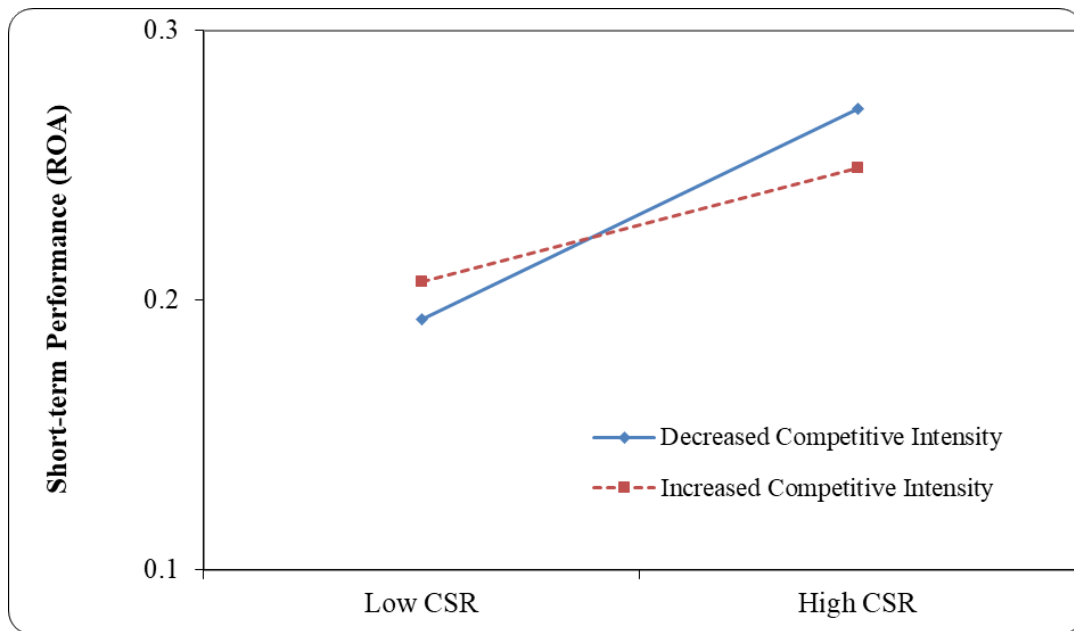


*Figure 2: Interaction Effect of CSR and Change in Competitive Intensity on Short-Term CFP*

Hypothesis 2a predicts a positive interaction between CSR and change in competitive complexity on CFP. The coefficient of CSR x CC in Model 7 is positive and statistically significant ($b = 0.007$; $p < 0.047$). Figure 3 illustrates this interaction; the positive effect of CSR on long-term CF is stronger for firms that increase competitive complexity. The slope of increased competitive complexity (dashed line) is significant (*t-value* = 2.791; *p* = 0.005), whereas the slope of decreased competitive complexity is not (*t-value* = 1.106; *p* = 0.269), providing support for H2a.
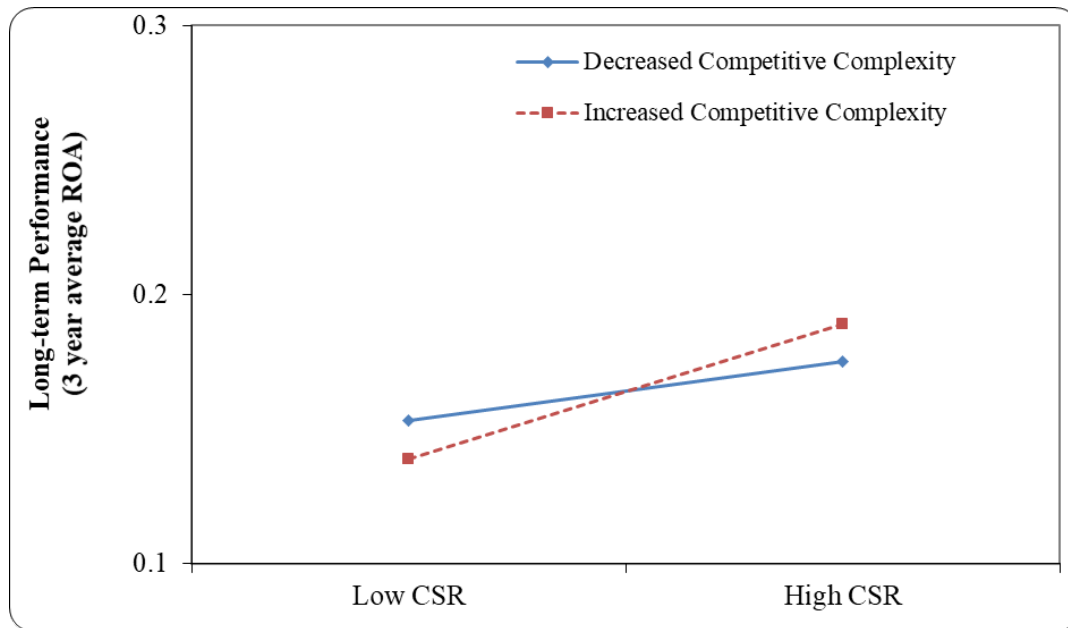
*Figure 3: Interaction effect of CSR and Change in Competitive Complexity*
*on Long-Term CFP*

Furthermore, the same interaction effect (CSR x CC) in Model 3 is not significant ($b = 0.000$; $p < 0.977$) for short-term CFP, providing support for Hypothesis 2b, that is, the positive interaction effect of CSR and change in competitive complexity is stronger for long-term than for short-term CFP.

***The moderating effect of competitive pressure.*** Hypothesis 3a predicts that the interaction between CSR and change in competitive intensity will be weaker at high levels of competitive pressure and stronger at low levels of competitive pressure. The coefficient of the three-way interaction term between CSR, change in competitive intensity, and competitive pressure (CSR x CI x CP) in Model 4 (Table 2) is statistically significant ($b = 0.006$; $p < 0.003$). However, Figure 4 below shows that the slope of this interaction effect is similar in both high- and low-pressure competitive environments. The slope difference between line 3 and 4 (dashed lines) in Figure 4 is not statistically significant (*t-value* for slope difference $= 0.000$; $p < 0.999$), suggesting that decreased competitive intensity increase the effect of CSR on short-term CFP in both high and low pressure environments, thus failing to support Hypothesis 3a.
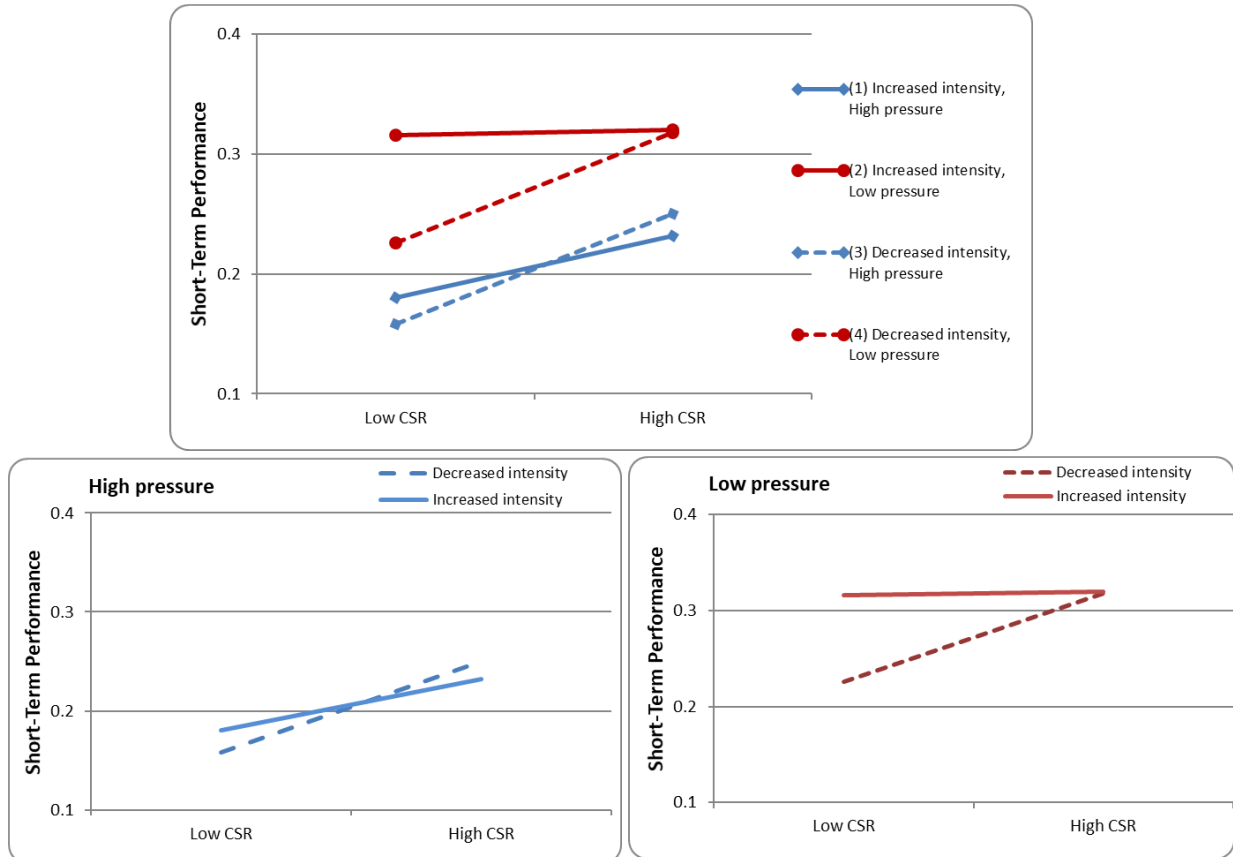
*Figure 4: Three-Way Interaction of CSR, Change in Competitive Intensity, and Competitive Pressure on Short-Term CPF*

Although the slopes of the dashed lines 3 and 4 (for decreased competitive intensity in the top chart) are statistically significant (*t-value* 3.450; *p* < 0.001 and *t-value* 3.014; *p* < 0.003 respectively), whereas the slopes of the solid lines 1 and 2 (for increased competitive intensity) are not (*t-value* -0.098; *p* < 0.329 and *t-value* -1.308; *p* < 0.191 respectively). These findings provide further support for H1a that CSR firms can increase short-term CFP when they *decrease* competitive intensity. Furthermore, the slope differences between line 1 and 3 (increased vs. decreased competitive intensity in high-pressure environments) and between line 2 and 4 (increased vs. decreased competitive intensity in low-pressure environments) are statistically significant (*t-value* -3.683; *p* < 0.000; *t-value* -4.155; *p* < 0.000 respectively). These results provide robust support for H1a: CSR enhances CFP when firms *decrease* their competitive intensity irrespective of the level of competitive pressure. Note also that firms exhibit higher profitability when competitive pressure is low than when it is high which is consistent with previous research (Young et al., 1996).

Finally, the three-way interaction between CSR, change in competitive complexity and competitive pressure (CSR x CC x CP) in explaining long-term CFP (Model 8) is not significant (*b* = -0.002; *p* < 0.518). However, given that we did not find support for H3a, H3b is also not supported or at the least inconclusive.

**Supplementary Analysis**

*Reverse causality.* We theorize that CSR and change in competitive intensity/complexity will interact in explaining future CFP. However, the reverse causation is also possible where CFP can

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affect managers' decisions to increase future investments in CSR and competitive activity. To address reverse causality concerns, we applied Granger-Sims test because "a causal relationship between two variables exists only if the coefficient is statistically significant when a lagged-dependent variable is also included as an independent variable in the regression" (Makadok, 1998; 688). Thus, we estimated all models with lagged values of ROA to control for a potential shared variance between past CFP and our independent variables.

***Confounding variables***. An alternative explanation of our findings might be that the observed relationships could be an outcome of a confounding variable that is highly correlated with both our dependent and independent variables. Including lagged dependent variable in a model can reduce, but not remove the influence of confounding variables. The key question, however, is not *whether* the confounding factor is correlated with both DV and IV, but "how large must be the correlations" to invalidate our statistical inference (Frank, 2000: 169). Here, it is suggested that calculating an impact threshold for a confounding variable (ITCV) to estimate the level at which it could negate the causal inference. In our study, the ITCV for the interaction term CSR x CI is 0.143 (Rosenberg, Xu, & Frank 2018). Thus, the effect of CSR x CI on ROA will become statistically insignificant when an unobserved covariate is correlated 0.143 (or higher) with both ROA and CSR x CI. To get a sense of how strong such a correlation is, we can compare it with the zero-order correlations between our control variables and both ROA (our dependent variable) and CSR x CI (independent variable) in Table 1. For example, of all control variables, firm size has the strongest correlation with ROA (– 0.16). However, firm size is correlated only -0.08 with CSR x CI. To invalidate the statistical inference, the covariate must be correlated 0.143 with both CSR x CI and ROA. However, Frank (2000) suggests it is more appropriate to compare ITCV with the partial correlation coefficients because firm size (or a possible confounding variable) will likely share variance with some of the other control variables in our model. Table 3A shows that the partial correlation of firm size is 0.04, far below the ITCV of 0.143. The partial correlations of the other control variables are lower than 0.06. This analysis suggests that it is unlikely that an unobserved confounding factor could correlate 0.143 with both ROA and CSR x CI. Note also that the partial correlation coefficient for lagged ROA is 0.51 which provides further justification for including lagged ROA in our model. Past ROA largely controls for the effect of other factors on future ROA.

Furthermore, the ITCV for the three-way interaction (CSR x CI x CP) is 0.132 which is far above the highest partial correlation of any control variable in Table 3A. Finally, the ITCV for the effect of the interaction between CSR and competitive complexity (CSR x CC) on long-term CFP (3-year avg. ROA) is 0.066. The highest partial correlation coefficient in Table 3B is 0.07 for slack resources in predicting long-term CFP. However, the same partial coefficient in predicting the interaction term (CSR x CC) is only 0.02 as presented in Table 3C. Overall, the ITCV analysis suggests that omitted confounding variables are not very likely to invalidate our statistical inferences. We note, however, that the ITCV for competitive intensity is higher than that of competitive complexity.

| A | DV: ROA | |
|---|---|---|
| **Control Variables** | **Partial Correlation** | **Semipartial Correlation** |
| Past Short-term performance (ROA) | 0.51 | 0.50 |
| Competitive pressure (CP) | -0.06 | -0.05 |
| Environmental munificence | -0.02 | -0.01 |
| Industry concentration | -0.02 | -0.01 |
| Number of rivals | 0.01 | 0.01 |
| Market share | 0.03 | 0.03 |
| Firm size | 0.04 | 0.04 |
| Slack resources | 0.02 | 0.02 |
| Financial leverage | -0.05 | -0.04 |
| R&D intensity | -0.06 | -0.05 |
| Action volume | 0.05 | 0.04 |

| B | DV: Avg 3-year ROA | |
|---|---|---|
| **Control Variables** | **Partial Correlation** | **Semipartial Correlation** |
| Past Long-term performance | 0.80 | 0.77 |
| Competitive pressure (CP) | -0.05 | -0.03 |
| Environmental munificence | -0.02 | -0.01 |
| Industry concentration | 0.03 | 0.02 |
| Number of rivals | 0.02 | 0.01 |
| Market share | -0.02 | -0.01 |
| Firm size | 0.03 | 0.02 |
| Slack resources | -0.07 | -0.04 |
| Financial leverage | 0.00 | 0.00 |
| R&D intensity | 0.06 | 0.03 |
| Action volume | 0.03 | 0.02 |

| C | DV: CSR x CC | |
|---|---|---|
| **Control Variables** | **Partial Correlation** | **Semipartial Correlation** |
| Past Long-term performance | 0.02 | 0.02 |
| Competitive pressure (CP) | -0.07 | -0.06 |
| Environmental munificence | 0.00 | 0.00 |
| Industry concentration | -0.02 | -0.02 |
| Number of rivals | 0.04 | 0.04 |
| Market share | 0.02 | 0.02 |
| Firm size | 0.03 | 0.03 |
| Slack resources | 0.02 | 0.02 |
| Financial leverage | -0.01 | -0.01 |
| R&D intensity | 0.01 | 0.00 |
| Action volume | 0.37 | 0.35 |

*Table 3: Partial and Semi partial Correlations for Short-term CFP*

Finally, to check for the influence of unobserved factors that do not vary over time, we also estimated all coefficients using *fixed effects model* with robust standard errors. The fixed effects results were similar to those reported in Table 2, providing support for our findings. However, because fixed-effects model removes both between-firm and higher-level variance, it explains only 8% of the within-firm variance in ROA and 0.04% of the overall variance in ROA (weighted average of within and between variance). For comparison, the random effects model captures 52% of the between-firm variance and 5% within-firm variance in ROA which accounts for 31% overall variance in ROA. Thus, compared to the fixed effects model, the multilevel mixed effects model is a better fit for our data.

*Multicollinearity*. Multiplicative terms in regression models can cause mutlicollinearity. We tested the impact of multicollinearity on our results using variance inflation factors (VIFs). The mean VIF was 2.23; VIFs for all variables were lower than 3.97, except for R&D intensity, which was 7.44. We tested all models without R&D intensity and the estimated coefficients remained unchanged, ruling out possible multicollinearity issues.

## 5.    DISCUSSION

Prior research has provided contrasting explanations about how CSR activities influence competitive (or core) activities of firms. Some scholars argue that CSR activities divert managerial attention and critical resources away from competitive activities of firms which can hurt CFP (Aupperle et al., 1985; Harrison & Wicks, 2013; Jensen, 2001). Conversely, other scholars argue that CSR activities will enable the development of new resources, capabilities, and competitive activities which can help CFP (Hart, 1995; McWilliams et al., 2006; Orlitzky et al., 2003; Porter & Kramer, 2011; Russo & Fouts, 1997). These contrasting views have been described as a paradoxical tension: Does CSR hurt shareholders by reducing CFP or help them by enhancing CFP? (Hahn et al., 2015; Margolis & Walsh, 2003; Miron-Spektor et al., 2016; Preston & O'Bannon, 1997; Smith & Lewis, 2011, 2018).

Our study suggests that prior considerations of the paradoxical tension between CSR-CFP is logically and empirically confined to an explanation of the resource allocation tension as it relates to the firm's overall competitive activity. However, when we disaggregate competitive activity into its different forms (i.e., the distinction between competitive intensity and competitive complexity), the paradoxical tension does not appear to be contradictory at all. Indeed, we view these different forms of competitive activity—supported by the reconfiguration or transformation of the firm's resource base—as pathways to manage the resource-allocation tension. Firms can reduce competitive intensity and reallocate some resources toward CSR, thus increasing the benefits of investing in CSR activities while reducing the costs of competitive intensity. This CSR-stimulated resource reconfiguration process allows firms to compensate for the reduced competitive intensity to improve short-term CFP. Firms can also use CSR to transform its resource base and increase competitive complexity which leverages the benefits of CSR and reduce the costs associated with competitive complexity. This resource transformation process allows firms to develop different kinds of resources and develop novel and diverse competitive actions, thus improving long-term CFP. Hence, CSR firms can improve short-term CFP through the resource-reconfiguration process and long-term CFP through the resource-transformation process.

Overall, our study provides deeper insights into the conditions under which CSR will improve CFP and the underlying processes that explain how CSR impacts CFP. Firms that engage in CSR can increase CFP *when* they decrease competitive intensity and/or increase competitive complexity. The resource reconfiguration and resource transformation processes explain *how* CSR firms

achieve higher long-term and short-term CFP. Those conditions and processes seem to hold regardless of the level of competitive pressure; that is, even when firms compete in highly competitive environments, investing in CSR can improve CFP when firms decrease competitive intensity or increase competitive complexity.

The impact of the resource allocation tension and the choice of pathway to alleviate it on the firm's CFP are substantial. To estimate those effects, we tested a quadratic polynomial multilevel panel data model: $Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e$, 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). Table 4 reports the results of the quadratic polynomial regression analysis and Figures 5 and 6 include the corresponding response surface plots (Edwards & Parry, 1993). The x-axis and y-axes denote standard deviations (range from -2.0 to 2.0) of the

variables                                                                                          of                                                                                          interest.

| | Short-term Performance (ROA) | | | Long-term Performance (3-year Avg ROA) | | |
|---|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Lagged DV | 0.222** | 0.222** | 0.221** | 0.675** | 0.677** | 0.674** |
| | (0.032) | (0.033) | (0.033) | (0.044) | (0.044) | (0.045) |
| CSR | 0.034* | 0.033* | 0.041* | 0.020* | 0.021* | 0.021* |
| | (0.014) | (0.014) | (0.016) | (0.009) | (0.009) | (0.010) |
| Change in competitive intensity (CI) | | -0.009 | 0.001 | | 0.005 | 0.007 |
| | | (0.007) | (0.010) | | (0.004) | (0.008) |
| Change in competitive complexity (CC) | | 0.004 | 0.005 | | 0.002 | -0.001 |
| | | (0.009) | (0.010) | | (0.008) | (0.009) |
| CSR x CI | | | -0.009** | | | -0.001 |
| | | | (0.003) | | | (0.004) |
| CSR x CC | | | 0.002 | | | 0.008* |
| | | | (0.007) | | | (0.004) |
| CSR squared | | | -0.006 | | | -0.002 |
| | | | (0.004) | | | (0.002) |
| CI squared | | | 0.002 | | | -0.001 |
| | | | (0.002) | | | (0.001) |
| CC squared | | | -0.007 | | | 0.002 |
| | | | (0.006) | | | (0.003) |
| Competitive pressure | -0.041** | -0.041** | -0.043** | -0.020+ | -0.020+ | -0.020+ |
| | (0.012) | (0.012) | (0.013) | (0.011) | (0.011) | (0.011) |
| Environmental Munificence | 0.012 | 0.012 | 0.012 | -0.008 | -0.008 | -0.008 |
| | (0.010) | (0.009) | (0.009) | (0.007) | (0.007) | (0.007) |
| Industry concentration | -0.004 | -0.003 | -0.003 | 0.015 | 0.015 | 0.014 |
| | (0.023) | (0.023) | (0.023) | (0.016) | (0.015) | (0.016) |
| Number of rivals | -0.053 | -0.054 | -0.055 | 0.036 | 0.036 | 0.041 |
| | (0.035) | (0.035) | (0.035) | (0.042) | (0.042) | (0.044) |
| Market share | 0.018 | 0.018 | 0.018 | -0.003 | -0.003 | -0.002 |
| | (0.022) | (0.022) | (0.022) | (0.015) | (0.015) | (0.015) |
| Firm size | 0.038 | 0.036 | 0.038 | -0.007 | -0.006 | -0.010 |
| | (0.030) | (0.030) | (0.030) | (0.019) | (0.018) | (0.019) |
| Slack resources | -0.012 | -0.012 | -0.013 | -0.063** | -0.062** | -0.067** |
| | (0.019) | (0.019) | (0.019) | (0.022) | (0.022) | (0.023) |
| Financial leverage | -0.020* | -0.020* | -0.020* | 0.004+ | 0.004+ | 0.005+ |
| | (0.008) | (0.008) | (0.008) | (0.002) | (0.002) | (0.003) |
| R&D intensity | -2.153** | -2.159** | -2.167** | 0.668 | 0.717 | 0.618 |
| | (0.708) | (0.713) | (0.711) | (1.404) | (1.414) | (1.421) |
| Action volume | 0.029 | 0.032+ | 0.033+ | 0.022* | 0.020+ | 0.018+ |
| | (0.018) | (0.018) | (0.018) | (0.010) | (0.011) | (0.011) |
| _cons | 0.234** | 0.233** | 0.237** | 0.159** | 0.161** | 0.161** |
| | (0.048) | (0.048) | (0.047) | (0.055) | (0.055) | (0.054) |
| N | 3,795 | 3,795 | 3,795 | 2,148 | 2,148 | 2,148 |
| Wald Chi2 | 716 | 724.28 | 836.49 | 1751.93 | 2009.07 | 2279.76 |
| All models include year dummies | | | | | | |
| Robust standard errors in parantheses | | | | | | |
| * p<0.05; ** p<0.01 | | | | | | |

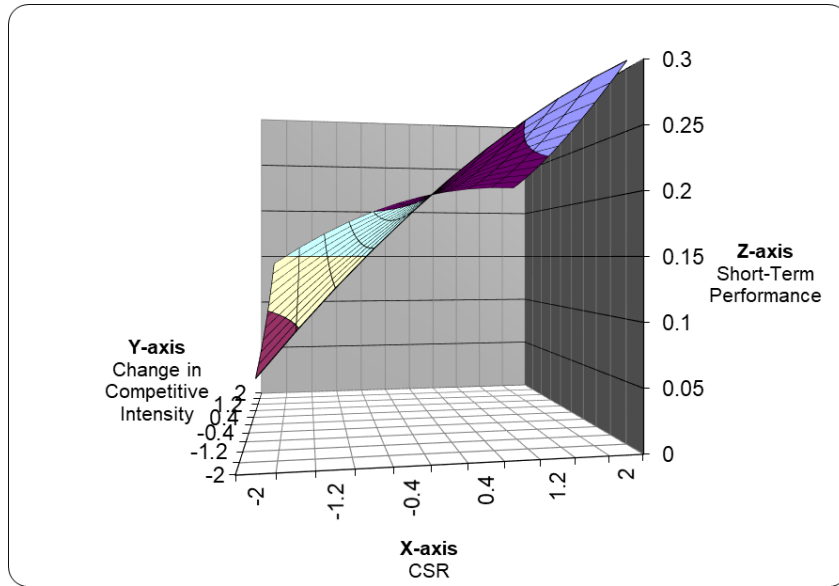*Table 4: Mixed Effects Panel Data Polynomial Model for CFP*

*Figure 5: Surface Plot for the Interaction Effect of CSR and Change in Competitive Intensity on Short-Term CFP*
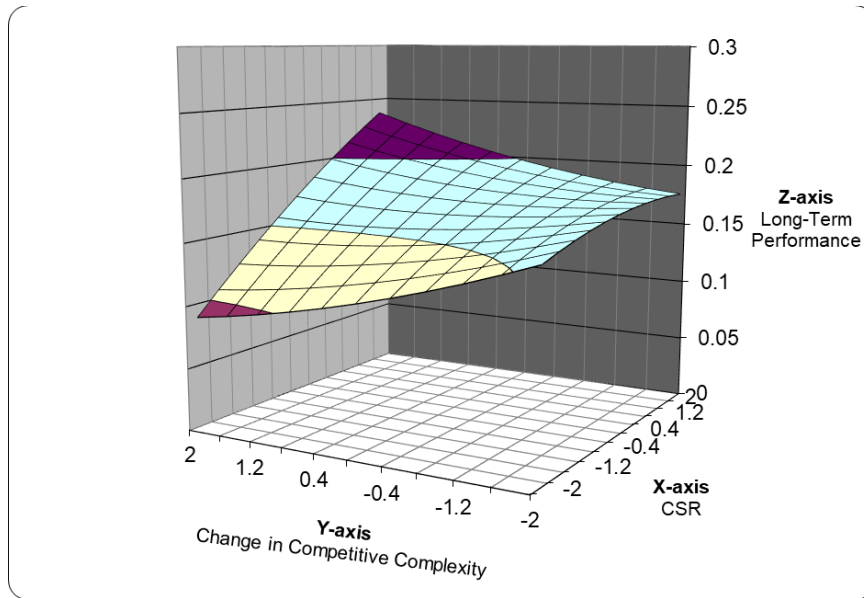


*Figure 6: Surface Plot of the Interaction Effect of CSR and Change in Competitive Complexity on Long-Term CFP*

Figure 5 illustrates a surface constructed of combinations of high (2.0) vs. low (-2.0) CSR and high (2.0) vs. low (-2.0) levels of change in competitive intensity across all levels of these variables. At the extremes, high CSR firms (2.0) that decrease competitive intensity (-2.0) enjoy a 14.09% gain in short-term performance compared to high CSR firms (2.0) that do not change competitive intensity (0). Figure 6 illustrates the surface constructed from combinations of CSR and increases in competitive complexity. Compared to high CSR firms (2) that do not change competitive

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complexity relative to the previous year (0), high CSR firms (2) that increase competitive complexity (2) earn 16.03% higher 3-year average ROA.

Although our theory and analysis do not address curvilinear relationships, the quadratic terms in our polynomial models in Table 4 not only provide some interesting details about the form of the interaction effects that support our hypotheses (Figures 5 and 6), but also provide a different perspective of prior competitive dynamics research on the curvilinear relationships between competitive intensity and CFP and competitive complexity and CFP. Given that previous research has suggested inverted U-shaped relationships between, specifically, competitive intensity (or aggressiveness) and CFP (Andrevski & Ferrier, 2019) and competitive complexity (or variety) and CFP (Ferrier & Lyon, 2004; Miller & Chen, 1993; Connelly et al., 2016), it does appear that taking CSR into account serves to straighten or flatten out the inverted U. In other words, whereas prior research supports an inverted U-shaped logic, the surface plots in Figures 5 and 6 associated with both decreasing competitive intensity and increasing competitive complexity illustrate decidedly upwards slopes (better CFP) as CSR increases. This suggests that owing to CSR and the corresponding changes to the firm's resource profile, the diminishing or declining returns associated with too much or too little competitive intensity or competitive complexity may not be realized as commonly thought.

Finally, as noted, the moderating role of change in competitive intensity and complexity on the CSR-CFP relationship holds even in environments with high competitive pressure. Figure 4 and the significant coefficient of the three-way interaction term (CSR x CI x CP) in Table 2 (Model 4) indicate that competitive pressure decreases CFP. Firms gain higher CFP when competitive pressure is low (red lines 2 and 4), and lower CFP when competitive pressure is high (blue lines 1 and 3). However, the form of the interaction effect between CSR and competitive intensity remains the same: CSR has positive effect on CFP when competitive intensity is decreased. Those findings provide a robust support for our theoretical arguments that a firm's internal resource-allocation decisions and the resource reconfiguration and transformation processes are critical for enhancing the effect of CSR on CFP.

## 5.1. Research Implications

Our study makes several contributions to CSR and competitive dynamics research. First, we show that the paradoxical tension between CSR and CFP can alleviate when we consider the heterogeneous nature and role of the firm's competitive activity. This is a notable contribution to the CSR literature as some scholars like Jensen (2001: 14) have lamented that "[s]takeholder theory…contains no conceptual specification of how to make tradeoffs among stakeholders." By integrating theory and methods from competitive dynamics and dynamic capabilities, our study provides both a conceptual and empirical specification to show that firms can manage the tension between CSR and competitive activities to improve competitive advantage and CFP. Thus, we demonstrate that firms can manage and mitigate the resource allocation tension between CSR and competitive activities. Taken together, we shed insights into how firms can profit by serving multiple stakeholders (Margolis & Walsh, 2003; Porter & Kramer, 2011) and effectively manage the paradoxical tension between social and profit objectives identified (Lewis, 2000, Smith & Lewis, 2011), and respond to the call for more research beyond *whether*, but *when* and *how* CSR influences CFP (Aguinis & Glavas, 2012; Margolis, Elfenbein, & Walsh, 2009, Zhao & Murrell, 2016).

We also contribute to competitive dynamics research by revealing conditions under which competitive intensity and competitive complexity can affect CFP. Our findings suggest that CSR can help firms increase short-term CFP even when they avoid direct confrontation with rivals by

either reducing competitive intensity or increasing competitive complexity. Following recent research (Kim, Kim, and Qian, 2018), we demonstrate that competitive activity is an important contingency to consider in explaining the relationship between CSR and CFP. Finally, by deconstructing how CSR relates to dynamic capabilities through a process of reconfiguration and resource transformation, we consider another source for dynamic capabilities and shed light on the potential mechanism of resource base change and how resource change can theoretically transpire (Schilke et al., 2018).

***Limitations and future research***. Although our theory leverages resource reconfiguration and resource transformation as mechanisms to explain alternative pathways to mitigate the resource allocation tension, we do not directly measure the tension. Indeed, our theoretical and empirical focus is on the competitive action- and performance-related *consequences* of firms having alleviated (or not) the tension through changes in the firm's resource profile. Future research could attempt to measure the resource allocation tension more directly by obtaining data for the amount of financial resources spent on CSR relative to those spent on competitive activities. Thus, researchers can measure tension as a ratio of social-to-competitive resources expended by firms. Such a measure would allow studying optimal allocations of resources for particular firms and industries.

In addition, future research could explore and tease out the individual, team, and organization-level micro dynamics that constrain or facilitate the resource reconfiguration and transformation processes. Future research could also examine how, exactly, complementarities among CSR and competitive activity come about. Scholars in decision making, for example, could tease out how managers interpret, reconcile, and enact the apparent paradox between CSR and competitive activities using one mode of decision making versus another. Future research could also explore how CSR and competitive activities jointly influence, for example, the firm's CSR-related reputation or status and the degree to which audiences—e.g., investors, social justice watchdog groups, government agencies, rivals, etc.—view reputation as a Gestalt or partition it into social and competitive components. Further, some prior research in competitive dynamics suggests that combinations of competitive actions—like a "one-two punch" combination in boxing—and the sequence with which they are carried out can influence firm performance (Ferrier, 2001; Rindova, Ferrier, & Wiltbank, 2010). Here, an interesting line of inquiry could explore whether CFP is most strongly associated with combinations of a particular type of CSR activity (like an environmental sustainability initiative) coupled with a particular type of competitive action (like a new product launch).

## 5.2. Managerial Implications

A commonly shared view among some scholars and managers in the past has been that CSR is a necessary, profit-killing evil that often distracts from and often disrupts the firm's competitive game plan (Friedman, 1970; Jensen, 2001). More recently, scholars have acknowledged that firms can respond to the interests of *all* stakeholders pursuing both social and financial goals (Harrison, Bosse, & Phillips, 2010; Margolis & Walsh, 2003; Porter & Kramer, 2011). Likewise, managers have become increasingly aware that CSR activities can not only contribute to society, but also strengthen their ability to compete effectively (Bonini & Bové, 2014; Keys, Malnight, & van der Graaf, 2009).[3] Our findings provide further support for this shifting and optimistic view of CSR for firms. As noted by Porter and Kramer (2011: 64-65), "the presumed tradeoffs between economic efficiency and social progress have been institutionalized in decades of policy choices"

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[3] See also https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter on the increasing importance and value of CSR in practice.

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). For instance, individuals with a paradox mindset may synthesize learning and performing goals and flexibly maneuver between them (Miron-Spektor & Beenen, 2015). Indeed, instead of being threatened by the tension, managers would do well to actively facilitate and leverage the complementarities among CSR and competitive activity. In addition, if CSR related responsibilities within the firm have been limited to a group of individuals or an organizational unit formed solely to enhance the firm's reputation and boost its CSR scorecard, our findings suggest that the firm should consider establishing CSR as a pan-organizational priority. By giving CSR and competitive strategy equal priority, all organizational units have the responsibility to collaboratively conceive of, develop, and carry out CSR *and* competitive activity, thereby enhancing both social and profit objectives of firms.

## 6.    CONCLUSION

The relationship between CSR and CFP has been presented as paradoxical tension because of the resource allocation tension between the social and profit responsibility of firms. In this study, we examine the moderating role of competitive intensity and competitive complexity on the relationship between CSR and CFP. We find that CSR compensates for a reduction in competitive intensity to improve short-term CFP through a resource reconfiguration process. We also find that CSR augments competitive complexity to improve long-term CFP by way of a resource transformation process. Finally, we find that the interaction effects of CSR with competitive intensity and competitive complexity on CFP are robust across different levels of competitive pressure. In taking a more nuanced perspective and examining the interdependencies between CSR and competitive activities, we submit that firms can manage and mitigate the resource allocation tension between CSR and competitive activities to improve CFP and achieve both social and profit objectives.

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