NEGATIVITY BIAS IN THE FAMILY-INTENSIVE SIGNALS: MODERATING EFFECTS OF FAMILY SIGNALS ON THE RELATIONSHIP BETWEEN FAMILY FIRMS' ENVIRONMENTAL AND FINANCIAL PERFORMANCES

Firms' observable signals tell many things about a firm (Connelly, Certo, Ireland, & Reutzel, 2011; Spence, 1973). For evaluating unobservable quality attributes of a firm, stakeholders often use observable information to infer a firm's underlying attributes (Rindova, Williamson, Petkova, & Joy Marie, 2005; Shapiro, 1982). In the present research, we propose that such observable signals are divided into two sorts: direct signals of an individual firm's unique capability (i.e., direct individual quality signals) and indirect signals of how much an individual firm represents a group characteristic (i.e., group signals).

Individual signals, such as having investments from venture capital in the early stage of firm founding (Davila, Foster, & Gupta, 2003) or technology-based firms' high number of patents (Audretsch, Bönte, & Mahagaonkar, 2012), directly represent a firm's quality. In contrast, group signals indirectly represent a firm quality through a firm's association with a group. A group signal is thus defined here that a signal navigating one's relevance with a group and how much a firm becomes a target of the group's overall reputation (Highhouse, Brooks, & Gregarus, 2009; Tirole, 1996). The format of a group can be either linked to a physical boundary, such as, a production location (Winfree & McCluskey, 2005) or an intangible boundary perceived in stakeholders' mind (Grant & Potoski, 2015).

A firm's group signals are important, and hence worth of management attachment, because they can have an influence on its own reputation. To overcome such unexpected impacts from the collective reputation and to reduce or intensify one's embodiment of group characteristics, we view that firms can either choose to deploy additional group signals: that is, group-intensive or -dilutive signals. The effects of such additional group signals, however, might significantly differ in their effects depending on what evaluation has been already made towards a group. With this respect, we posit that negativity bias, which accounts for in psychology literature a tendency of people to more strongly react to negative information, will be predominant in understanding group signals' impacts on individuals' reputation (Kahneman & Tversky, 1984; Peeters & Czapinski, 1990; Rozin & Royzman, 2001). That said, in this group signal context, instead not having any positivity from group-dilutive signals, only the negative emotions will be intensified when stakeholders facing an additional group-intensive signal.

In this paper, firms affiliated with a family business group, such as chaebols in South Korea, form a culturally defined group whose collective reputation signals poor business ethics (Rama, 2012; Terlaak, Kim, & Roh, 2018). When a firm is affiliated with a chaebol, stakeholders perceive such family subsidiaries as a peer group sharing a similar business culture: family-centered, selfish and socially and environmentally irresponsible (Manikandan & Ramachandran, 2015; Terlaak et al., 2018). In an assumption that the way the market evaluates a firm's environmental performance is to capture the extent to which a firm possesses intrinsic moral assets (Jayachandran, Kalaignanam, & Eilert, 2013), firms with family-intensive signals indicate a firm's strong inclination to be family-centered and more likelihood of moral hazard, which thus make their environmental performance devalued on the market compared to those without such family-intensive signals.

To identify negativity bias of stakeholders against a group-intensive signal, we test moderating effects of both group-intensive and group-diluting signals with family businesses' emission reduction performance (ERP) on corporate financial performance (CFP). With the 925 firm-year observations (136 firms-10 years from 2007 to 2016, excluding missing) of South Korean firms that are affiliated with a family business group, we found that a firm having a successive family CEO or high stake of family ownership, both of which are assumed family-intensive signals, makes stakeholders significantly devalue a firm's reduction efforts. On the contrary, no positivity was found for family business firms with intentionally equipped family-dilutive signals, such as having more foreign ownership and increasing outside directors' ratio on the board or having an independent audit committee.

Our research contributes to signaling theory largely in two ways. First, we distinguish group signals from individual signals and argue that group signals convey information of one's varying embeddedness of a group's characteristics. This is an original approach provided that most literature on signaling theory has monotonously underscored a signal's universal role as a direct informant of an individual's uniqueness (Connelly et al., 2011). Secondly, we show that group signals' impacts are not equal for each additional group signal – i.e., group-intensive and -dilutive signals. We argue that negativity bias would be predominant if stakeholders have already had negative evaluations on a group and it is combined with a signal intensifying one's group feature.