FAMILY-CONTROLLED BUSINESS GROUPS: AN IN-DEPTH REVIEW AND A MICRO-FOUNDATIONS BASED RESEARCH AGENDA

Business groups (BGs) constitute a salient organizational form in many economies around the world (La Porta, Lopez-de-Silanes, & Shleifer, 1999; Dau, Morck, & Yeung, 2021), with various names ranging from Japanese *keiretsu*, Korean *chaebols*, Taiwanese *qiyejituan*, Turkish *families*, Latin American *grupos* to Indian *business houses*. BGs are broadly defined as "sets of legally separate firms bound together in persistent formal and/or informal ways" (Granovetter, 2005: 429) where the firms in question "are accustomed to taking coordinated action" (Khanna & Rivkin, 2001: 47). BGs have attracted sustained scholarly attention (see Table A1 of online appendix) over the last three decades with scholars from multiple disciplinary backgrounds formulating theories as to why BGs exist and the firm-level consequences of BG affiliation.

The dominant theoretical account has been the economic explanation that BGs substitute for missing or underdeveloped institutions that are needed for effective functioning of factor markets for capital, labour and other inputs (Caves, 1989; Khanna & Palepu, 2000; Leff, 1978), as documented in the last comprehensive review of the BG literature by Khanna and Yafeh (2007). However, an empirical meta-analysis by Carney et al. (2011) also revealed a mismatch between the dominant theoretical lens (dubbed the institutional voids view) used to study BGs and the actual pattern of correlations across prior empirical studies. While the dominant theoretical lens predicts a positive effect of BG affiliation, the meta-analysis suggested an average negative effect of BG affiliation, prompting Carney et al. (2011)'s cautionary plea for researchers to eschew mono-theoretical accounts of a complex phenomenon.

Subsequent to the anomaly revealed by Carney et al. (2011), empirical papers on BGs have since moved more towards examining BG heterogeneity and strategic performance outcomes – as one way to explain the conundrum of average negative effects. However, we lack a systematic and in-depth review of what alternative theoretical accounts were used to investigate these linkages, the relative utility of these accounts and hence potential future research paths for the field. Recent BG-

related systematic reviews focus on specific strategic outcomes - such as the phenomenon of internationalization (e.g.: Aguilera et al., 2020; Holmes et al., 2018) and the role played by BG structures in regulating such phenomenon, rather than examining in-depth the full range of phenomenon where BG structures are implicated, and the theoretical approaches used to study those phenomena. Our paper complements these recent reviews in two ways: First, our approach is to examine the entirety of phenomena where BGs are implicated (e.g., financial outcomes, innovation, internationalization, diversification, M&A and so forth) and go in-depth into the theoretical approaches used to study these diverse phenomena. Second, we focus only on those BGs where the controlling and coordinating core entity is a family i.e., family-controlled BGs (FBGs). Focusing in-depth on FBGs is theoretically and pragmatically reasonable for the following three reasons.

First, we find that FBG studies constitute about 70% of all the BG papers that we reviewed. This scholarly focus on FBGs is understandable given the importance of the phenomenon. Most businesses around the world are family controlled (La Porta et al., 1999; Sharma et al., 2012). Across a broad sample of firms from 45 countries, Masulis, Phan and Zein (2011) find that 19 percent of publicly listed firms belong to FBGs, and even going up to 40 percent in some emerging economies. For example, in Korea, the 20 largest FBGs account for over 85% of GDP in terms of both assets and sales (Murillo & Sung, 2013). Given the importance of FBGs to scholarship and practice alike, a review that focuses only on FBGs allows us to delve in-depth on the modal type of coordinating entity.

Second, construct clarity on the nature of the coordinating entity is crucial for a review that aims to go in-depth into theoretical approaches used in studying BG phenomenon. This is because a controlling *Family* is different from a controlling *Bank* which is different from a controlling *Government* in terms of the motivations, internal structure and incentives of the actors that constitute the BG coordinating entity. Indeed, a reason for the mismatch noted by Carney et al. (2011) between the dominant theory's prediction and empirical evidence could simply stem from

inappropriate clubbing of these three different types of coordinating entities into a single "BG effect". Thus, our proposition is to divide and conquer - by focusing our review on FBGs we reduce the influence of confounding theoretical factors around the BG coordinating entity when drawing conclusions from cross-study comparisons.

Finally, focusing solely on FBGs allows us to identify salient patterns in modes of theorizing in extant research. Indeed, our in-depth review reveals that FBG research overwhelmingly involves structural modes of theorizing – using frameworks largely derived from Economics, such as the Institutional voids framework. By structural, we refer to modes of theorizing that gives primacy to forces at the organizational or higher levels of analyses in explaining regularities in organizational behaviour. A structural mode of theorizing gives short shrift to the attributes of actors (such as small groups or individuals) at lower level of analyses (Felin & Foss, 2005), whose appropriately aggregated actions may constitute a theoretical mechanism underlying the observed regularity in organizational behaviour. We advocate for re-orienting future FBG research towards micro-foundational modes of theorizing that are more relevant and promising for family-controlled businesses (Devinney, 2013; Gedajlovic et al., 2012; Jaskiewicz et al., 2016). Given the disproportionate role of the controlling family (typically a small group) in FBGs – as founders, investors, board members and operating executives, a micro-foundations-based approach is more likely to result in elegant, nuanced, and generative theorizing because of a better match with the complexity of the FBG research context.

By sharply focusing only on FBGs but comprehensively including all their strategic implications and the theoretical approaches used to study them, our review advances the conversation on business groups in three ways. First, our review paints a nuanced and rich picture of prior FBG research – both in terms of the linkages among core constructs examined by prior empirical work, as well as assessing the theoretical variety used to study these linkages. This allows us to identify that prior FBG research involves predominantly structural modes of theorizing. Second, our review suggests consistent micro-foundations-based theoretical pathways for future FBG research. We

develop a simple framework of theoretical "taking" and "giving" of relevant micro-foundational frameworks from contiguous Management sub-fields to systematically identify potential paths ahead for future FBG theorizing. We believe this re-orientation will allow FBG scholars to look at thorny questions from multiple new perspectives and build useful theoretical bridges with contiguous scholarly communities, thus leading to cumulation and consilience in the Management fields' overall knowledge base. Third, we zoom in and discuss a few illustrative theoretical frameworks, consistent with a micro-foundations approach. We outline how their application could enrich our knowledge base on relationships already identified in prior FBG research and allow for greater integration of FBG research with the contiguous Management sub-fields of family business, entrepreneurship and strategy research. We also propose ways in which FBG research consistent with a micro-foundations approach, can broaden the range of phenomenon that it examines.

METHOD FOR SYSTEMATIC REVIEW

To conduct a systematic review of FBG research, we first searched for published articles in the *Financial Times* list of 50 highly ranked business journals (FT50) in the year 2020[1]. We then used our judgment to complement this list with five other top management journals[2] that are likely to publish business group research - four from the list of journals in Carney et al. (2011), the *American Journal of Sociology, Journal of Business, Management International Review* and *Small Business Economics*; and a high-quality outlet started in 2011 for international business, *Global Strategy Journal*. Details of the journals and sample collection procedures are reported in the online appendix (Table A2). Because we wanted the initial search to be broad, we searched for papers that included features of business groups in general, as either independent or dependent variables – irrespective of the level of analysis. The search terms we employed are consistent with Carney et al. (2011) and the time span for the search was 1995 to 2021[3]. The descriptive statistics of our systematic search efforts are presented in Table A1 of online appendix. Our search process yielded a list of 183 published papers on business groups. From this list, we removed papers that did not explicitly test any hypothesis e.g., verbal theory-building or case-based inductive theory-building

papers (23) and review, commentary, or descriptive papers (20), to arrive at a list of 140 articles that met our initial screening criteria. Then, to identify FBG studies i.e., those that study BGs controlled and coordinated specifically by a family entity, we took the following steps. First, we read each article to find out if it explicitly stated whether the coordinating entity of the BGs under study was a family or a non-family entity (such as a bank or government). We were able to clearly identify the coordinating entity in 119 articles, and classify 89 of these as FBG studies, and 30 as non-FBG. Second, for the remaining 21 articles in which the focal BG coordinating entity was not clear, we noted the country (or countries in some cases) from which the study samples were drawn. Then we used data from Masulis, Pham & Zein (2011) to identify countries in which family-controlled firms represent at least 10% of the stock market[4]. We used this list to categorize the remaining 21 articles as an FBG study if the empirical sample was drawn from a family-business-dominated country, and a non-FBG study if otherwise[5]. This step yielded another 9 FBG studies and 12 non-FBG studies. We thus arrived at a final list of 98 FBG studies (=89+9) for our review.

AN ORGANIZING FRAMEWORK FOR MAPPING PRIOR EMPIRICAL FBG RESEARCH

We fully reviewed these 98 papers and noted the key theoretical constructs in each paper. We then coded the linkages among the constructs and captured the directionality of FBG effect on the focal linkage under investigation in each study, if applicable. This resulted in the development of an organizing framework that integrates the linkages among the relevant constructs as independent variables (e.g., FBG affiliation, intra- or inter- FBG heterogeneity), dependent variables (e.g., financial, or strategic outcomes), and moderators (e.g., environmental, or organizational influences) based on prior FBG research.

Figure 1 presents this framework consisting of the key constructs (labelled 1 through 6) and the dominant linkages among them (depicted through solid and dashed arrow lines, with the size of the arrowhead indicating the number of studies representing the link, and the framework depicts those links that were examined by three or more papers). Much FBG research focuses on the performance

effects of business group affiliation for firms and how they vary with the quality of the institutional environments in which they are located (e.g., Guillén, 2000; Khanna and Palepu, 2000a, 2000b; Mahmood & Mitchell, 2004). In addition to environmental factors, studies have also examined how various factors at the level of affiliate firms such as firm age, size and type of leadership regulate FBG effects. Recent research has also underlined the significant heterogeneity that exists across FBGs (at the FBG level as well as across the affiliate firm level) in their resource endowments, organizational structure, and inter-organizational ties. Further, studies have begun to examine the effects of FBG affiliation and FBG heterogeneity beyond financial performance and on other strategic outcomes such as product-market expansion, innovation, and governance.

Insert Figure 1 here

The framework thus presents a comprehensive overview of existing FBG research as well as offers a visual representation of gaps that can guide future research. For instance, Figure 1 depicts that a substantial volume of work has focussed on understanding the effects of FBG heterogeneity on affiliated firms' financial or strategic performance outcomes (depicted through arrows 2-4 and 2-3). We note that prior comprehensive reviews of BG research (Khanna & Yafeh, 2007) or empirical meta-analyses of BG effects (e.g., Carney et al., 2011) limit their focus to primarily the financial consequences of BG affiliation (link 1-4 in Figure 1) and hence are not able provide the big picture account of the various conceptual linkages examined by prior work, as we do in this review. In addition, the figure also highlights that prior research has largely overlooked the factors that lead to FBG emergence or to the various forms of inter- or intra-FBG heterogeneity. While multiple theoretical explanations have been proposed for the emergence of FBGs rooted in institutional economics (Khanna & Palepu, 1997), sociology (Granovetter, 1994; 2005), political science and entrepreneurship (Amsden, 1989; Guillén, 2000), extant empirical work takes FBGs as given and does not empirically examine their emergence. Table 1 provides an overview of the

theoretical diversity in FBG research, and captures the dominant theoretical perspectives used to examine the relationships among key constructs presented in panels A through E[6]. We describe and summarize the findings of key studies underlying each of the panels in the following sections.

Insert Table 1 here

Financial Performance Effects of FBG Affiliation

The broad question of whether and how business groups add financial value has motivated a significant portion of the FBG research and has been the core focus of prior reviews (Carney et al., 2011; Yiu et al., 2007; Khanna & Yafeh, 2007). We found 7 empirical studies in our review directly examining this relationship as represented by the link 1-4 in Figure 1 (summarised in online appendix Table A3 under Panel A.1). In fact, most of the studies examining FBG affiliation effect have also considered interaction with environmental factors (links 1-4(5) and 5-4(1)) and FBG heterogeneity (link 1-4(2)), which we describe separately under sub-sections A.2 and A.3. Significantly, all the nineteen studies in our review exploring the financial consequences of FBG affiliation are based on economic theories[7] (see Table 1), highlighting a critical need for a more diverse perspective.

Effects of FBG affiliation on financial performance (Fig 1 link 1-4; Table 1 panel A.1)

Firm financial performance has been measured using both accounting profit measures (four studies) and capital market measures (three studies). While making the case for whether or not FBGs add financial value, this body of work highlights a variety of costs and benefits associated with FBGs for affiliated firms (see Table A5 of online appendix for a summary). One of the primary costs associated with FBGs stems from agency issues (Keister, 1998; Khanna & Palepu, 2000a; Morck & Yeung, 2003). Member firms tend to suffer from conflict of interests between controlling family and the minority shareholders. It is plausible in many FBGs that the family has controlling stakes in several firms but still does not have significant cash flow rights in many of them (Morck

& Yeung, 2003). This creates incentives for the family to expropriate and transfer profits across firms - from firms in which the family has low cash flow rights to firms where it has high cash flow rights – referred to as tunnelling. Bertrand, Mehta and Mullainathan (2002) report evidence that Indian business groups engage in tunnelling, though Siegel and Choudhury (2012) raise questions about the reliability of these findings. Secondly, FBGs may serve to reduce bankruptcy risks to weaker affiliates, but impose additional costs on stronger members (Ferris, Kim, & Kitsabunnarat, 2003). Another problem in the case of firms in which the family does retain a substantial ownership, and has family members in management, is that corporate governance mechanisms might be subverted, leading to problems of managerial entrenchment. This leads to controlling families interfering in both tactical and strategic decision-making of member firms. Further, due to inequity and nepotism, inefficient compensation systems tend to develop across group companies, with detrimental effects on the market for talent (Chen, Chittoor & Vissa, 2021). Coupled with the security that affiliation to FBGs offers, managers of group-affiliated firms typically have weaker incentives to run their firms efficiently (Khanna & Rivkin, 2001).

Despite these costs, FBG affiliation also provides many benefits to individual firms. Most important, it is widely recognized that in the absence of well-developed economic institutions that support effective functioning of capital, labor and product markets, FBG firms have access to internal alternatives for these resources within the FBG (Khanna and Palepu, 2000a, 2000b). Capital for new projects, management talent, and inputs to production may all be accessed at lower transaction costs within the FBG (Caves, 1989; Leff, 1978) than from external markets or intermediaries. Moreover, the internal hierarchical control of the FBG may also discipline the management of the affiliated firm in terms of how they actually utilize capital (Masulis et al., 2011). Khanna and Rivkin (2001) also suggest that FBGs may have superior access to the political power structure in the economy through their consolidated lobbying and influence efforts - and hence they may benefit from a richer pool of opportunities in the country. As with other forms of multi-business organization, FBGs can potentially leverage economies of scale and scope, particularly

those of a non-rivalrous nature (Chang and Hong, 2000; Mahmood and Mitchell, 2004). In addition, FBGs and their affiliates also represent a social structure characterized by repeated interaction, family ties and rich information flows - consequently, the costs of transacting within the FBG may be lower than that for comparable transactions between independent firms (Granovetter, 1994; Guillén, 2000).

Although there is a fair degree of convergence in the literature on the list of potential costs and benefits of FBG affiliation (or because there are *both* costs and benefits), both the theory and the empirical evidence are inconclusive on their net impact on an affiliated firm's financial performance. This may partly be the case because some of the costs imposed by FBGs on certain affiliate firms may show up as benefits for other affiliate firms (e.g. cross subsidization). Moreover, the relationship between FBG affiliation and financial performance may be subject to many moderating factors or be mediated by the attainment of other factors such as strategic outcomes. Thus, it is not possible to characterize FBGs either as 'paragons or parasites' (Khanna and Yafeh, 2007); 'avatars or anachronisms' (Granovetter, 2005), and the estimated affiliation effects observed across countries and studies show wide variance (Carney et al., 2011; Khanna and Rivkin, 2001). Consistent with an earlier empirical meta-analysis by Carney et al. (2011), our review finds ambiguous evidence for the relationship between FBG affiliation and firm performance with four studies indicating a positive relationship (for example, Khanna & Palepu, 2000a), a negative relationship in the case of two studies (such as Baek, Kang & Park, 2004) and one indicating mixed effects across 14 emerging markets (Khanna & Rivkin, 2001). Three of these studies found a positive affiliation effect on indirect financial performance outcomes such as investments and financial performance post 1997 financial crisis in Korea (Almeida, Kim & Kim, 2015), access to bank finance by small firms in Italy (Cainelli, Giannini & Iacobucci, 2020) and likelihood of firm survival, also in Italy (Santioni, Schiantarelli & Strahan, 2020). Importantly, all the seven studies examining the FBG affiliation effect use economic theories that are structural, predominantly the institutional voids perspective and internal capital markets (see Table 1), highlighting the need for

using more diverse theoretical approaches. As many factors could potentially moderate or mediate the link 1-4, it may not be possible to establish a general valence for this link; hence, unlike prior reviews, we separately examine evidence from the studies that investigate such factors.

Interaction effects of FBG affiliation with environmental factors (Fig 1 link 1-4(5); Table 1 panel A.2)

If the primary benefit of FBG affiliation in emerging economies (and indeed the rationale for their existence) stems from the absence of strong economic institutions, a logical corollary would be that FBG affiliation effects are a function of the institutional context in which they are situated. How institutional environment moderates the relationship between FBG affiliation and financial performance is a question that has received significant attention, especially in the last ten years. We found seven studies (for example, Khanna & Palepu, 2000b; Castaldi et al., 2019) exploring the empirical evidence for the link 1-4(5) in Figure 1, where 5 represents environmental factors such as market or political institutions, and industry factors. As most developing economies where FBGs have a dominant presence, such as India, Taiwan and Latin America, have begun embracing economic reforms over the last three decades, it raises the question whether FBGs in these contexts would continue to add value. Examining this question in the context of the evolving economic environment in Chile, Khanna and Palepu (2000b) posit and find that group benefits atrophy over time as capital or product markets develop. In a similar finding, Minetti and Yun (2015) report that the pricing differences in loan contracts between chaebol and non-chaebol firms narrowed or disappeared once the government-influenced chaebol safety net was dismantled in the late 90s in Korea. Extending these arguments to the foreign subsidiary performance, Castaldi et al. (2019) find that FBG affiliation enhances subsidiary performance in host countries where institutions are under-developed. Instead of viewing market-oriented institutional change as a discrete event, Kim, Kim & Hoskisson (2010) divide it into periods of institutional frictions and convergence and report, using evidence from a sample of Korean firms, that FBG firms profit from internationalization during institutional convergence but not when there are frictions or major changes.

Two studies (Chacar & Vissa, 2005; Guillén, 2000) explore the effect of institutional environment in an interesting way (link 5-4(1)[8]). Guillén (2000) finds a positive association between FBGs' market share and asymmetries in foreign trade across nine emerging economies. Examining persistence of firm performance in a developing country (India) and developed country (US), Chacar and Vissa (2005) find that poor firm performance persists longer in India when compared to the US while there is no difference in the persistence of superior firm performance. Further, they find that poor firm performance persists longer in firms affiliated to FBGs and MNCs compared to unaffiliated firms, thereby supporting the hypothesis that FBGs tend to prop up poorly performing firms by shuffling resources from better performing firms.

Studies in a multi-country context by Khanna with other co-authors (Khanna & Rivkin, 2001; Khanna & Yafeh, 2005) find inconclusive evidence for the moderating role of market institutions on the FBG effect. Exploring whether FBGs help smoothen the variability of earnings for affiliated firms, using evidence from 12 emerging economies, Khanna and Yafeh (2005) conclude that the degree of capital market development does not explain the extent of risk sharing within FBGs. Some studies that are more recent report evidence opposite to that of the institutional voids hypothesis (Siegel & Choudhury, 2012; Lamin, 2013; Chittoor, Kale & Puranam, 2015; Manikandan & Ramachandran, 2015) with the FBG effect becoming more positive as market institutions develop. Multi-country studies (Khanna & Rivkin, 2001) and meta-analysis (Carney et al., 2011) do not find consistent support for a substitutive or complementary relationship between FBG affiliation and the degree of institutional development. We suggest two ways to address this puzzle in the section on suggestions for future research later – (a) to take into account the inter-connectedness of the economic selection environment and the prevalence of wealthy controlling families in an economy and (b) to break down the institutional environment into specific dimensions (as in Guillén, 2000; Chittoor et al., 2015) such as market institutions (equity and debt markets, labor markets, trade freedom and so on), political economic factors and industry factors. Remarkably, we find that with the exception of Guillén (2000) all the other studies examining the

interaction effects of FBG affiliation with environmental factors are also built on structural economic theories (panel A.2 Table 1). Given the significant influence of the members of the controlling families in FBGs, there is a perceptible need to go beyond structural theories and bring in fresh theoretical perspectives with a more micro-foundational lens not only to better understand the FBG effect but also to help reconcile the mixed findings of prior research.

Interaction effects of FBG affiliation and FBG heterogeneity (Fig 1 link 1-4(2); Table 1 panel A.3)

Most BG studies, both on FBGs and others, have conceptualized and operationalized the BG effect by using a BG affiliation dummy – a coarse-grained measure. However, significant heterogeneity exists among FBGs in terms of family ownership, family presence and structure, political connections, variation in their diversification profile etc. The number of FBG heterogeneity studies has increased by 77% from 1995-2010 to 2011-2021 (as compared to 69% increase in studies that operationalize the FBG effect as a dummy variable during the same time period, see Table A4 in online Appendix). Effects of heterogeneity factors have been studied at the level of firms within an FBG, which may exist in the form of differences in the degree of ownership by the controlling owner, the levels of ownership (direct versus pyramidal), board membership and interlocks etc.; and also across FBGs in terms of FBG size, age, degree of diversification etc. Out of the 61 papers in our review delving into FBG heterogeneity, a majority of the papers (37) studied across-BG heterogeneity when compared to firm-level heterogeneity within FBGs (Table A4 in online Appendix).

In this section, we focus on studies that combine FBG affiliation effect with one or more variables of FBG heterogeneity and in the next section delve more deeply into the effects of FBG heterogeneity. To begin with, the seminal study of Khanna and Palepu (2000a) on the benefits of FBG affiliation also reports its contingency with the level of diversification in the business group. Controlling for size effects, they find that firm performance initially declines with group diversification and subsequently increases once group diversification exceeds a certain threshold

level. In a study of Korean FBGs between 1985 and 1996, Chang and Hong (2000) find a positive relationship between the profitability of an affiliated firm and the intangible and financial resources available with the affiliated FBG. In another study using the same dataset, Chang and Hong (2002) find that the positive effect of FBG affiliation on firm performance tends to be smaller in larger FBGs and decreases over time. Interestingly, Chu (2004) reports an opposite finding in the case of Taiwanese firms in that member firms affiliated with larger BGs show better financial performance. More recent studies report the positive influence of the degree of participation of the FBG firm in capital markets (Chittoor, Kale & Puranam, 2015). Extending the FBG effects to foreign markets, Castaldi et al. (2019) find a positive FBG influence on foreign subsidiary performance but only when the parent and the affiliate firm belong to the same industry. All the five studies marking the link 1-4(2) are based on economic theories once again highlighting the need for more theoretical variety. These studies that combine the FBG affiliation effect with FBG heterogeneity, though limited in number, highlight the need for a more nuanced understanding of the FBG effect by going beyond its operationalization as a '0' or '1' dummy variable.

Effects of FBG heterogeneity on financial performance (Fig 1 links 2-4 & 2-4(5); Table 1 panel B)

Initial studies examined the financial consequences of FBG size and scope (extent of diversification). In their meta-analysis study, Carney et al. (2011) examine the effect of BG size and BG product-market scope and report a positive effect of the former and a negative effect of the latter on firm financial performance. Our review identified 10 papers examining the empirical evidence for the link between various factors of FBG heterogeneity and financial performance (2-4 link); further 3 papers studied the moderating role of institutional environment as well (2-4(5) link). The positive effect of BG size finds support in FBG studies (e.g., Khanna & Palepu, 2000a) as in the case of other BGs (for example with banks as the coordinating agency in Dewenter, Novaes & Pettway, 2001). As to the effect of scope, Khanna and Palepu (2000b) find a curvilinear relationship between FBG scope and affiliated firms' performance with a positive effect only

beyond a threshold level. Our review revealed a number of interesting FBG studies examining heterogeneity using family ownership variables. Some of the family variables used as explanatory variables include marriage ties (Han, Shipilov & Greve, 2017), generational involvement (Bertrand et al., 2008) and intra-group equity ties (Mahmood, Zhu & Zaheer, 2017). In a study of 93 Thai FBGs, Bertrand et al. (2008) find a positive effect of family involvement on firm performance, though it is limited to founder's generation and turns negative after the founder's death. They attribute this effect to the dilution of ownership and control over multiple generations, which creates a "race to the bottom" in tunnelling resources out of the group firms. Yang and Schwarz (2016) also find a detrimental effect of excess control by family but report a weakening of this effect in FBGs governed by professional managers. Further exploring the effects of structure and control, Masulis, Pham and Zein (2011) find that financing advantages are greater for FBG firms held in pyramidal rather than in horizontal structures, but group firm performance declines when dual-class shares and cross shareholdings are employed as additional control-enhancing mechanisms. Two studies explore and find spillover effects from one FBG firm to the rest, Bae, Cheon and Kang (2008) in the case of announcement of earnings and Joe and Oh (2018) in the case of change of credit ratings - with negative spillovers having a more dominant effect than positive spillovers. Stressing the importance of disclosure and its heterogeneity among FBGs, Beaver et al. (2019) find that the availability of intra-group financial information is a key predictor of financial default of group firms, after controlling for firm's own financial information. Finally, a couple of studies (Buchuk et al., 2014; Kim, 2016) reinforce the internal capital markets hypothesis with evidence of higher investment, leverage and financial performance by FBG firms that borrow internally. In a more nuanced study of this effect, during a seven year period just after the Asian financial crisis in 1997, Kim (2016) finds that FBGs' financial leverage led to a loss of market share for affiliate firms and this negative consequence is more pronounced for firms in fast-growing industries. Our conclusion from the review of this link (2-4) is that while some recent research has

begun to delve into FBG heterogeneity, this area holds immense promise for future research as we elaborate later through the usage of more micro-foundational and behavioural theories.

We now turn to work that examines the moderating effect of environment on the link between FBG heterogeneity and firm performance (link 2-4(5)), which consists of three studies in our review pool. During market-oriented transition in Taiwan over a 24-year period, Luo and Chung (2005) find that family and prior social ties between top leaders within FBG firms have a positive effect on group performance, but family ties beyond a threshold tend to reduce group performance. On the other hand, in the same context (Mahmood, Zhu & Zaheer, 2017) find centralized intra-group equity ties improves affiliate performance but this effect is found to weaken when the environment becomes more turbulent. In other words, there seems to be a difference in the effects of mere family ties and equity ties and further, these effects are contingent upon the institutional environment. Similarly, in the financial default prediction model by Beaver et al. (2019) using a combination of information from affiliate firms and the business group, it is found that the predictive ability reduces as the financial reporting standards of the home countries improve in a dataset comprising over 100 countries. As highlighted earlier, these studies reinforce the need to delve separately into diverse elements constituting an institutional environment. Moreover, a majority of the studies examining FBG heterogeneity continue to use economic theories (10 out of 13), though there is more diversity in the variety of economic perspectives used. Given that family is a social institution, there is a need for more research that leverages sociological theories such as social network theory (2 studies) and institutional theory (1 study) to help us better understand both inter- and intra-FBG heterogeneity.

Shifting Focus towards Strategic Performance Outcomes

Effects of FBG affiliation on strategic outcomes (Fig 1 links 1-3 & 1-3(2); Table 1 panel C.1)

Prior reviews of the BG literature have primarily focused on the financial consequences of BG affiliation (Carney et al., 2011; Khanna & Rivkin, 2001), but our review of the FBG literature indicates a significant shift in the focus towards strategic performance outcomes. In the last ten-

year period, only 23 FBG papers have focused on financial consequences when compared to 38 FBG papers on strategic consequences (see Table A4 of online Appendix). This shift seems to be in right direction as FBG effects on strategic outcomes illuminates our understanding of how FBGs add financial value by delving into specific mechanisms.

We start with the FBG affiliation effects (panel C.1 of Table A3). Our review revealed strategic outcomes in broadly three categories – *product-market outcomes* such as market share, new market entry, internationalization and so on; *strategic capabilities* such as innovation and marketing capabilities etc. and finally, *environmental, social and governance (ESG) outcomes*. We first examine the evidence for the FBG affiliation effect as represented by the link 1-3. With only seven studies for this link, spread across different settings and examining different strategic outcome variables, it is not possible to generalize the FBG effect on strategic outcomes, but we explore for any noticeable patterns. Examining the international expansion of Korean firms into China between 1987 and 1995, Guillén (2003) finds evidence for coordination and imitation among the firms belonging to the same FBG in their foreign entry mode choices. Kumar et al. (2020) also explore internationalization patterns of FBG and other unaffiliated firms from India and find that FBG firms tend to be less aggressive as indicated by how quickly they conduct their first overseas M&A as family firms tend to be more conservative. Three more studies exploring this link focus on market-related outcomes and report advantages for FBG firms when compared to other firms. Vissa et al. (2010) find that FBG affiliated firms are more externally oriented in setting performance aspirations and are more likely to respond to low performance in comparison to market. Iacobucci and Rosa (2005) and Manikandan and Ramachandran (2015) list several structural advantages that FBGs possess which enable them to leverage external growth opportunities better and report supportive evidence in Italian and Indian firms respectively. The last two studies of this link highlight other strategic advantages of FBGs - Bena and Ortiz-Molina (2013) reaffirms financing advantages due to the pyramidal structure of FBGs while Ray and Ray Chaudhuri (2018) reports evidence for positive environmental and social sustainability orientation of FBG firms.

Five more studies explored how a few FBG heterogeneity variables moderate the FBG affiliation effect on strategic outcomes (link 1-3(2)). Examining international search behaviour, Gubbi, Aulakh and Ray (2015) find that FBG affiliated firms that are younger and that occupy a prominent position within the group or industry are able to receive better support to undertake international search. Chang, Chung and Mahmood (2006) report that FBGs' ability to share technological knowledge and financial resources among affiliates enables them to promote innovation in affiliate firms, but groups' diversification inhibits their innovativeness. Even in a setting of small and medium enterprises, Guzzini and Iacobucci (2014) find a positive FBG effect on R&D intensity and this effect is strengthened in firms of higher size and greater FBG ownership. Examining governance-related outcomes, Bonacchi, Cipollini and Zarowin (2018) study earnings management practices and find that FBG firms are more likely manage earnings using unlisted subsidiaries primarily to avoid reporting losses. In a similar vein, Choi et al. (2018) find that though FBG firms have higher CSR overall (as reported by Ray & Ray Chaudhuri, 2018), ownership disparity between cash flow and control by inside shareholders is associated with lower CSR.

Overall, this body of evidence clearly demonstrates a shift in the right direction towards strategic variables, which play an important mediating role on financial performance outcomes. Given their focus on a broad array of strategic variables, we find an increasing use of sociological theories (four) as compared to economic (eight) among the twelve studies representing the links 1-3 and 1-3(2). The evidence is still limited to indicate a generic directionality for the FBG effect on any of the strategic outcomes and as the following section indicates, identification of a combination set of factors when FBG affiliation can positively or negatively influence various strategic outcomes would be a better approach.

FBG heterogeneity effects on strategic outcomes (Fig 1 link 2-3; Table 1 panel C.2)

In line with the other shift in the literature from FBG affiliation to FBG heterogeneity studies, we found as many as sixteen studies focusing on the 2-3 link between FBG heterogeneity variables and strategic outcomes. A majority of the studies exploring the link (2-3) are more nuanced, in

terms of both the FBG characteristics (independent variables) and the strategic outcomes (dependent variables). This has resulted in a medium to high degree of diversity in the theoretical lens used in this stream of FBG research as borne out by Table 1. The dominant focus of most studies has been on product-market outcome variables (eight), followed by innovation outcomes (four), and a limited number of studies focusing on ESG variables (four). Studies highlight a number of FBG factors that positively affect an affiliate's potential to enter new markets including inter-FBG marriage ties (Han, Shipilov & Greve, 2017), political connections with the ruling party (Zhu & Chung, 2014), internal capital markets within FBGs (Boutin et al., 2013; Masulis, Pham & Zein, 2020) and preservation of socio-emotional wealth (SEW) (Gu, Lu & Chung, 2019). SEW refers to a key micro-foundational construct used by scholars of family business (Gomez-Mejia et al., 2011) to capture non-pecuniary benefits that a focal controlling family obtains from the firms it controls. Distinguishing the effects of a focused versus broad SEW, Gu, Lu and Chung (2019) propose that controlling owners' likelihood to pursue new industry entry is negatively affected by the exercise of family influence (used as a proxy for focused SEW) but is positively associated with the succession of family dynasty (a form of the broad SEW). Furthermore, these effects are found to be stronger when the founder generation is in control, strengthening the broad pattern of evidence that the family effects weaken over multiple generations (Bertrand et al., 2008). Chung and Luo (2008a) reaffirm the socio-emotional influence of family ownership and reports that family-dominated BGs are less likely to a) divest of unrelated businesses, and b) make unrelated acquisitions. Examining the relationship between product diversification and internationalization, Kumar, Gaur & Pattnaik (2012) find a negative relationship between the two in emerging market FBGs indicating the need for a balancing act between the two. Extending the work on the FBG effect on internationalization, Santangelo and Stucchi (2018) propose that the coordination capabilities developed through an FBG's domestic geographic dispersion can be exapted (re-used) to enable outward FDI activities and find support in a longitudinal dataset of 693 Indian FBGs. Most of these studies throw light on the various mechanisms through which FBGs create

advantages by leveraging internal social networks to confer benefits of product-market growth in affiliated firms.

How FBGs affect innovation outcomes is the next major theme addressed by FBG studies and similar advantages of scope and within-FBG networks are found in this case too. Mahmood and Mitchell (2004) argue that while FBGs facilitate innovation for member firms, they also discourage innovation at the overall economy level by creating barriers for non-FBG firms. Exploring the within-BG heterogeneity of the FBG effect on innovation capabilities, Mahmood, Chung & Mitchell (2013) find that the density of buyer-supplier ties within an FBG has a positive impact on group's innovation. In another innovation study across FBGs, Mahmood, Zhu and Zajac (2011) propose and find that the centrality of an affiliate's position in the intra-group director network and buyer-supplier network is positively related to its R&D capability. Defining innovation performance broadly, Mithas, Ramasubbu and Sambamurthy (2011) identify intra-group information management capabilities as a key determinant.

Given that family ownership and control of BGs has unique and interesting implications for ESG outcomes, a few studies have begun to explore these. The size of the family owning the BG has a positive association with family involvement in ownership, control and management especially during subsequent generations of the founder (Bertrand et al., 2008). A recent study by Masulis et al. (2020) points out that motivations to retain family control shape how FBGs access capital through new public offerings (IPOs). Su and Tan (2018) report that FBGs, particularly those with more product and international diversity are more likely to use tax havens. Family ownership and intra-group transactions are found to influence firm CSR (Oh et al., 2018) as well as the firm disclosures of environmental performance (Terlaak, Kim & Roh, 2018). Overall, this stream of research indicates that while we understand the FBG effect on a few strategic outcomes such as product-market growth, internationalization and innovation fairly well, our understanding of how FBGs affect other strategic factors such as ESG outcomes is still limited and can be aided by the usage of a wider theoretical lens that includes theories from political science and family business.

Interaction effects of environmental factors and FBG effects on strategic outcomes (Fig 1 links 1-3(5), 5-3(1) & 2-3(5); Table 1 panel C.3)

In the last two decades, the discipline of strategy has seen an increasing application of neo-institutional theory as economic and social institutions are found to have a significant influence on the strategies and performance of firms (Ahuja, Capron, Lenox & Yao, 2018). A key theme under this stream has been how the institutional environment affects FBG affiliated, and unaffiliated firms differently. We counted twenty studies from our review pool that focused on how the FBG effect on strategic outcomes varies across different environments (roughly divided equally between the links 1-3(5), 5-3(1) and 2-3(5)) and this stream also reflects reasonable diversity in the theoretical lens used (see Table 1). The strategic variables examined by these studies primarily consist of product market-related, innovation, governance and capital market variables, and these effects are found to be contingent on the institutional and other environmental factors. Chang, Chung and Mahmood (2006) demonstrate this by comparing and reporting differences in innovation outcomes between FBG and non-FBG firms in Korea and Taiwan, countries with distinctly different institutional systems in the early 1990s. Lamin (2013) proposes that FBGs offer advantages stemming from information and knowledge sharing among affiliate firms and that such advantages are found to boost international sales even in deregulated and globally competitive industries such as, information technology services in India. This finding is further reinforced by Manikandan and Ramachandran (2015) who find that improving market institutions have a positive impact on growth opportunities for FBG firms in India. Exploring how international search intensity of firms is affected by institutional changes in India, Gubbi, Aulakh and Ray (2015) find that FBG firms suffer a disadvantage when there is a misalignment between how the institutional changes affect the specific affiliate firm's industry and the FBG as a whole. Using a dataset of M&As by firms from nine emerging economies over a 21 year period, Kim and Song (2017) find that the likelihood of the abandonment of M&A deals (after being publicly announced) is less when acquirers are affiliated with FBGs and that this effect decreases as external capital markets develop. Highlighting

some unique approaches to foreign subsidiary management in FBG firms, a recent study by Chung, Dahms and Kao (2021) finds that family managers are assigned to manage foreign subsidiaries when they have stronger operations outside the home region and in subsidiaries where there are strong institutional differences between home and host countries.

Complementing these studies, we found seven studies that examine the environmental effect as an independent variable and how it is affected by FBG affiliation (link 5-3(1)). For example, a study by Hoskisson et al. (2004) proposes that firms undergo restructuring in response to country development, deregulation and increased competition. They find that this response of restructuring to country development is much stronger among firms affiliated to FBGs as compared to independent firms, whereas the same response to deregulation and competition is stronger for independent firms. Another challenge that emerging economy firms face with increasing liberalization of borders is new competition from foreign MNEs. Dau, Ayyagari and Spencer (2015) propose and find in the Indian context, that firms affiliated to FBGs are more likely to respond to this threat and that within FBGs, firms that are professionally managed and hold more central positions in the groups (as measured by director networks) are more likely to respond. Exploring the link between outside directors and governance variables among Korean firms, Min (2016) finds that FBG affiliation has a positive moderating effect on regulatory compliance on financial leverage while restraining a firm's growth tendencies. Ray & Ray Chaudhuri (2018) report that dependence on fungible resources for sustainability orientation is found to be less among FBG firms. Two studies conducted using post-reforms data on Indian firms (Manikutty, 2000; Gopal, Manikandan & Ramachandran, 2021) arrive at a similar conclusion that reforms led to reduced levels of unrelated diversification among FBGs. Examining environmental impacts on innovation, Bu and Cuervo-Cazurra (2020) propose that informal entrepreneurial settings impose costs on innovation even when informally created firms transition to more formal enterprises. But in a cross-country study involving firms from 71 emerging economies, they find that the persistence

of informality costs on innovation are lower in MNEs and firms owned by FBGs, whereas they are higher in state-owned enterprises.

We found another seven studies that used broader FBG variables instead of just an affiliation dummy for examining the moderating effect of the environment (link 2-3(5)). In a study of firms in Korea and Taiwan during 1981-1995, in which Mahmood and Mitchell (2004) report an inverted-U relationship between the FBG market share in an industry and innovation, they also find that this effect is influenced by differences in the institutional environment between the two countries. In another study that establishes the contingent effect of the environment, the positive effect on innovation due to buyer-supplier tie density within an FBG is found to diminish with development of market environment in Taiwan (Mahmood, Chung & Mitchell, 2013). Examining how FBGs cope with institutional change during market-oriented transitions in Taiwan between 1986 and 1998, Chung and Luo (2008) find that second-generation leaders, particularly those with management education from the US, are able to reduce family presence in management and also are able to divest of unrelated businesses. Exploiting the context of political and economic liberalization in Taiwan between 1986 and 1998, Mahmood, Chung and Mitchell (2017) investigate and find that formal position interlocks with dominant party or senior government officials provide greatest benefits in a closed political-economic system, while informal social ties to a wider range of political actors, particularly legislators, provide greater benefits as the system becomes more open. Overall, the empirical evidence for these links seems to suggest that some of the FBG-related sources of strategic advantages are contingent upon the environment though there is a need to dig deeper and pin down the specific institutions with which they have a complementary and substitutive effects (for example, Chittoor, Kale & Puranam, 2015). Moreover, most of these studies, in particular those representing the link 5-3(1), clearly show evidence in support of the superior ability of FBGs to adapt and cope with market reforms and changes in their institutional environments.

Influence of strategic factors on financial performance (Fig 1 link 3-4(1); Table 1 panel D)

Why some firms perform better than the others is the core question that binds strategy as a field and the variables that help explain the heterogeneity in firm performance are termed strategic. Whether the affiliation of a firm to an FBG changes the prevailing strategy explanations (links 3-4(1), 3-4(2)[9]) proved to be a fertile ground for investigation for strategy scholars. For example, the prevailing well-accepted position on the negative consequences of unrelated diversification required revisiting given that many successful FBGs are highly diversified. We found 14 studies examining such links with twelve papers representing the link 3-4(1) alone.

Examining the diversification-performance relationship, Chakrabarti, Singh and Mahmood (2007) find that diversification improves performance for FBG firms only in the less developed institutional environments and it hurts firm performance in more developed environments. When it comes to the effect of internationalization on firm performance, two studies (Gaur & Delios, 2015 for international diversification; Gubbi & Elango, 2016 for cross-border acquisitions) find a positive moderating effect of FBG affiliation. In a more nuanced study of internationalization, Gaur et al. (2019) find that FBG affiliation positively moderates the relationship between internalization (as measured by inter-subsidiary sales and parent country national staffing) and subsidiary survival. Furthermore, they find that the size of the FBG and its degree of diversification enhances this effect even more (link 3-4(2)). Even though these studies indicate a strong positive FBG effect on outward (product-market) internationalization, when it comes to inward internationalization, Elia et al. (2020) find that FBG firms derive less benefit from inward foreign technology licenses as compared to non-affiliated firms in a sample of Indian firms. In an interesting study that examines stock market reaction to corporate crimes in Korea, Song and Han (2017) find a negative effect which is quite intuitive, but also find that the negative effect is significantly less for chaebol-affiliated firms; they surmise the reasons for it could be both positive (better reputation) or negative (crime by chaebols is quite expected). As many as six studies in this link 3-4(1) examine more deeply concerns related to tunnelling (expropriation of minority shareholders by the dominant shareholders) in FBGs. Two studies by Kang and co-authors (Bae, Kang & Kim, 2002; Baek, Kang

& Lee, 2006) highlight different ways of tunnelling engaged by FBGs. Acquisitions seem to serve as one of the mechanisms in context of *chaebols*, as they find that acquisitions made by Korean *chaebol* firms did not create value for the focal firm but increased the wealth of controlling shareholders by creating value for other group firms (Bae, Kang & Kim, 2002). Another mechanism was the issuing of private securities, also in the context of *chaebol*, where offer prices in intra-group deals were set to benefit the controlling shareholders (Baek, Kang & Lee, 2006). Dividend payout is also used as an indirect route for tunnelling as Gopalan, Nanda and Seru (2014) report in their study using Indian firms where controlling shareholders distributed dividends from cash-rich firms and used it to increase their investment in other affiliated firms. In a more recent study of 106 Taiwanese business groups, Yang and Schwarz (2016) find that group-level excess control exhibits an inverted U-shaped relationship with group performance thus corroborating similar findings earlier by Carney and Gedajlovic (2002). These appropriation concerns are reflected in the valuation of FBG firms as the valuation impact of family control is negative in contrast to the impact of independent directors or foreign investors (Douma, George & Kabir, 2006; Choi, Park & Yoo, 2007). In a study that explores causation in a reverse direction (link 4-3(2)), Chang (2003) shows that performance determines ownership structure but not vice versa and provides evidence that controlling shareholders use insider information to take direct and indirect equity stakes in profitable or promising firms and transfer profits to affiliates through intra-group trade. All these studies are pointers to the strong possibility of nepotistic orientation in FBGs as argued recently by Chen, Chittoor and Vissa (2021). While family ownership and control confers benefits such as long term orientation and stewardship behaviours as argued by SEW scholars, future research must aim to identify conditions when negatives such as nepotism and tunnelling could predominate.

Influence of organizational factors (Fig 1 links connecting box 6; Table 1 panel E[10])

In addition to the intra- and inter-FBG heterogeneity factors, standalone organizational factors (box 6 in Figure 1) have also been found to influence the FBG effect. Our review found seven

studies in which organizational factors moderate the FBG effect and another six studies highlighting their influence in other ways. The first simple influencing factors that come up in this category are the firm's age and size. In their investigation of how FBGs influence firms' international search behaviour in a sample of Indian firms, Gubbi et al. (2015) find that member firms that are more distant from the group's founding year (i.e., younger firms) have a negative impact and the authors attribute this to firms' lower centrality (with older firms being more central to the group). On the other hand, Kumar et al. (2020) find that firms founded after economic liberalization in India, pursue more aggressive internationalization by conducting their first cross-border acquisition faster. This can be attributed to a distinctly different imprinting environment for these younger firms. Firm size is another such organizational factor. Examining innovativeness in small and medium enterprises, Guzzini and Iacobucci (2014) not only find that FBG firms engage in higher R&D, but also that this effect is higher for larger firms (after carefully controlling for the fact that FBG firms in general tend to be larger compared to unaffiliated firms). Three studies highlight an important influence of a firms' listing in stock exchanges (Chittoor, Kale & Puranam, 2015; Mahmood, Zhu & Zaheer, 2017; Kim, Pae & Yoo, 2019). Chittoor et al. (2015) argue that accessing capital markets by listing in a stock exchange complements the internal market advantages of FBGs (in addition to offering benefits of external scrutiny) and find a positive effect on firm performance in a sample of Indian firms (link 1-4(6)). Mahmood, Zhu and Zaheer (2017) also find a significant influence of firm listing in the context of Taiwanese firms. They find that centralization of equity ties enhances affiliate firm performance but that this effect is weaker for the listed firms as they accrue additional advantages from outside the FBG. While finding that public firms make more charitable contributions than private firms, Kim, Pae and Yoo (2019) also find this effect to be more pronounced in FBG firms. Another organizational factor that is found to have a significant influence in the context of family firms is the degree of professional management. In the study that explores how domestic firms respond to MNE threats in a sample of Indian firms discussed earlier, Dau, Ayyagari and Spencer (2015) find that the likelihood of the

response is positively influenced by the degree of professional management. Similarly, Yang and Schwarz (2016) too report that the negative effect of firm-level excess control on firm performance is reduced when the FBG is governed by professional managers. We also found four papers examining the moderating effect of FBG affiliation or FBG heterogeneity while studying the strategic consequences of organizational factors; some interesting examples include CEO succession in terms of insider versus outsider CEO in Chung and Luo (2013); social ties between CEOs and financial analysts in Chen, Chittoor and Vissa (2015), and impact of family CEOs as compared to professional CEOs in the case of Chittoor, Aulakh and Ray (2019). Overall, the studies in this stream signal the possibilities of interesting interaction effects between standalone organizational factors and group-level factors.

To summarize, Figure 1 provides a snapshot of all aspects of the FBG phenomenon and their inter-relationships that prior empirical research has examined. In addition, online appendix Table A3 offers rich details of the conceptual frameworks used, the research design to test the frameworks and the key findings of prior research. Table 1 collates studies by theoretical lens used (note the predominant deployment of structural theories) and directionality of effects to provide insights on the theoretical variety used to study FBG phenomenon. Taken together, this allows for some broad conclusions about the state of FBG research and potential paths forward – which we now turn to.

SPRINGBOARDS FOR FUTURE FBG RESEARCH BASED ON A MICRO-FOUNDATIONS APPROACH

Based on our review of the FBG literature (encapsulated in Figure 1 and Table 1), we develop three springboards to catalyze future FBG research. First, we advocate that FBG research re-orients from its current reliance on structural modes of theorizing towards a more micro-foundations-oriented approach. Extant FBG work predominantly utilizes structural frameworks – derived mainly from Economics, although some studies use structural frameworks derived from Sociology or Political Science. A micro-foundations approach is both relevant, given its topical importance in the broader Management field (cf. Devinney, 2013), and necessary in the FBG context given the

disproportionate role of the controlling family (a relatively small group) in the business as founders, investors, board members and operating executives. We develop a simple framework of theoretical "taking" and "giving" to think more systematically about broadening the palette for future FBG research's modes of theorizing, in ways consistent with such a micro-foundations approach. We believe this re-orientation will allow FBG scholars to look at thorny questions from multiple perspectives and build useful theoretical bridges with contiguous scholarly communities, thus leading to cumulation and consilience in the Management fields' overall knowledge base. Second, we zoom in and discuss a few specific theoretical frameworks, consistent with a micro-foundations approach, to illustrate how their application could enrich our knowledge base on relationships already identified in prior FBG research. Finally, we propose ways in which future FBG research, again, consistent with a micro-foundations approach, can broaden the range of phenomenon that it examines – in other words, expand Figure 1, by identifying important new outcomes in the context of FBGs and study their causes and consequences. We elaborate below.

Why does FBG research need to broaden its theoretical palette?

As we can see from column 3 of Table 1, FBG research is predominantly mono-disciplinary, with 76% of all links in Figure 1 studied using an Economics lens. Importantly, these Economics grounded theoretical frameworks (such as the popular Institutional voids approach as well as others such as PPA, internal capital markets, institutional economics, RBV etc.) are structural theories. However, the inconsistency in prior empirical findings belies the promise of utilizing such a structural, mono-theoretical approach. For example, evidence on the directionality of the main and moderated relationships between FBG affiliation and financial performance (the main 1-4 link moderated by (2) or (5) in Figure 1) is unclear. Out of the 18 studies using an Economics lens to study this relationship, seven studies report a positive directionality, three report a negative directionality, two report mixed findings, five report contingent findings and one study reports both a positive and a contingent effect (for different links). This begs the question of what are the hidden contingencies that seem to flip the directionality of the effects.

To respond to these and other empirical inconsistencies, FBG scholars turned to non-Economic theories. Thus, the only other study to examine the 1-4 link, Guillén (2000), uses a political science approach to propose that structural features of certain national institutional environments allow for FBGs to thrive by developing capabilities for repeated industry entry. Likewise, some scholars (e.g.: Chung & Luo, 2013; Mahmood, Zhu, & Zaheer, 2017) have examined other links utilizing Sociology based lenses – such as institutional theory and social networks theory to theorize FBG phenomenon. We note that these alternative frameworks from political science and sociology also utilize a structural mode of theorizing. Thus, while we see the tentative moves to using non-Economic lenses as a welcome step to match the complexity of theorizing to the complexity of the phenomenon, we suggest that FBG scholars need to go much further, by actively diversifying their theoretical palette into more behavioral perspectives, consistent with the recent micro-foundations movement in the broader Management literature (Devinney, 2013). In essence, we advocate for picking modes of theorizing (within the sociology or political science perspectives) that provide consistent micro-foundations. This is important because consistent micro-foundations provide clear causal logics and well-defined aggregation rules for the micro-macro link. A consistent micro-foundations-based approach can also serve as a base from which we can look at questions from different, novel perspectives. This will in turn, over time, help resolve inconsistent findings and lead to cumulation of knowledge across silos and thus grow the knowledge base of the field.

There are diverse views on what constitutes a consistent micro-foundations-based approach to theorizing (cf. Devinney, 2013 for a quick summary of the alternative views). Given that much of FBG research constitutes an instance of organizational phenomena, we build on Greve (2013) and suggest that an appropriate micro-foundation for organizational phenomenon is a behavioral strategy approach. Such an approach involves mechanisms that reduce to the top layer of emergent properties but go no further, which are consistent with individual humans' actor-hood while also allowing for meso-level (and not necessarily only individual-actor level) explanations. With these

criteria of micro-foundation as a touchstone, we develop below a simple framework to think more systematically about broadening the palette for future FBG research's modes of theorizing.

A "giving" and "taking" approach to broaden FBG research's theoretical palette.

While Guillén (2000) developed novel theory *ab-initio* in the FBG research context to explain phenomenon that are unique to that context, we offer two other channels for increasing theoretical diversity in future FBG research, as we depict in a two-by-two matrix of Figure 2. One dimension in Figure 2 is whether a theory was initially developed in an FBG context (e.g., institutional voids theory was originally developed to explain unrelated diversification by FBGs in emerging economies) or in a non-FBG context (e.g., Transaction cost economics was originally applied in management research to explain vertical integration decisions of large corporations in the United States). The other dimension is whether the phenomenon examined is unique to the FBG context or relevant for all firms. For example, phenomenon that involve issues around controlling family-related dynamics (as family members, as founders, board members, as operating executives, as controlling investors), coordination across multiple legally independent listed and private firms as well as related party transactions are unique to the FBG context. In contrast, phenomenon such as corporate behaviour involving product or geographic diversification, innovation, corporate social responsibility, executive compensation and so forth are applicable to *all* firms and not just FBGs.

Insert Figure 2 here

Based on these two dimensions, we derive four cells as depicted in Figure 2. Cell 1 consists of theories initially developed in an FBG research context and applied to phenomenon unique to the FBG context. Examples of Cell 1 frameworks include the P-P Agency (Young et al., 2008) and institutional void theory (Khanna & Palepu, 1998), which are dominant theoretical lens and have been widely used in prior empirical research on FBGs (cf. Figure 1 and Table 1). Cell 4, on the diagonal side, includes theories initially developed in a non-FBG research context (such as real

option theory) and applied to explain phenomenon (such as investment flexibility) that are applicable to *all* types of firms and not just FBGs. Cell 4 theories are less relevant for this paper.

We focus on Cell 2 and Cell 3 of Figure 2 which are two channels that could help advance future FBG research. Cell 2 involves *taking* an existing micro-foundational framework that was originally developed in a non-FBG context and applying that framework to a phenomenon that is specific to the FBG context (i.e., a "taking approach"). Adapting such potentially relevant micro-foundational, behavioral strategy theories to provide novel explanations for FBG phenomenon could reinvigorate both FBG research and the theoretical framework in question. On the other hand, Cell 3 presents an alternate channel to theoretical diversity by leveraging the FBG context to develop new, micro-foundational, behavioral strategy frameworks that could *give* insights to researchers studying relevant phenomenon in a broad array of other Management sub-fields (i.e., a "giving approach"). These new "giving" frameworks will not thus only provide explanations that advance FBG scholarship but will also constitute novel explanations for important outcomes relevant for all firms and thus be of interest to a broader array of Management scholars. Hence, this alternate channel constitutes an opportunity for FBG research to contribute or 'give' to the broader pool of micro-foundational frameworks available to Management scholarship.

Broadening the theoretical palette of FBG research through these two channels shown in Figure 2, in ways that pay careful heed to the compatibility of fundamental assumptions (Shaw, Tangirala, Vissa & Rodell, 2018), is useful in two ways. First, the resultant micro-foundations-based theory is more likely to be elegant, nuanced, and generative because it is likely to appropriately match the complexity of the FBG research context. Second, the resultant 'flow' of micro-foundations-based frameworks in both directions will better integrate FBG research with contiguous research areas in the Management field. In the next section, we propose candidate micro-foundations-based frameworks along both channels and broad research questions drawn from those frameworks that could add salubrious theoretical variety to FBG research and enhance the intellectual integration of FBG research within the broader Management field.

Leveraging theoretical diversity to enrich relationships identified in prior FBG research.

We examine micro-foundations-based frameworks from Cell 2 first and then move to Cell 3. Our intent here is to be illustrative rather than exhaustively identify all frameworks that fit our criteria. Furthermore, the approach we advocate here is already starting to get implemented by multiple teams of FBG scholars – which we explicitly identify in the sections below. We believe that identifying and naming this movement and placing it within a broader framework opens new opportunities that tend to be overlooked when different communities of scholars who study contiguous phenomenon or theories do so in separate silos. It is thus an opportunity for fertile comparison and dialogue within and beyond the FBG scholarly community.

Illustrative examples of Cell 2 theories that could be relevant for the FBG research context.

The two illustrative Cell 2 micro-foundations-based theories that we believe scholars can usefully leverage to enrich future FBG studies are upper echelons theory (UET) and social network theory (SNT). These two prominent theories are used by multiple contiguous scholarly communities as outlined in Panel A, column 2 of Table 2. We briefly outline each theory, the relevant contiguous scholarly communities that have applied these theories and we propose ways in which FBG research can leverage these frameworks to advance the field.

Insert Table 2 here

<u>Leveraging Upper Echelon Theory (UET) for FBG research</u>

Since Hambrick and Mason (1984) published their seminal work, UET has been applied in various empirical contexts (Hambrick 2007). UET research tries to understand how organizational leaders, such as CEOs and top management teams, use their own perspectives to screen, filter and interpret information in forming the basis of 'constructed reality' in their decision making (Liu, Fisher & Chen, 2018). Firm choices and outcomes are seen as influenced by these executives' background, psychological orientation, and values, and therefore organizations become a reflection

of their leaders (Hambrick & Mason, 1984). We focus on the successful application of UET in 3 contiguous areas relevant for FBG research: (i) Entrepreneurship scholars studying successful financial exits (ii) Family business scholars studying socio-emotional wealth (SEW) and nepotistic orientation (NO) of controlling families and (iii) Governance and leadership scholars studying professional senior executive teams. We outline below how frameworks from these 3 areas could be leveraged to provide impetus for micro-foundations-based theorizing in the FBG research context.

(i) Entrepreneurship research: Kinger Hans and Vissa (2022) use a UET perspective to theorize how successful entrepreneurs' ascribed and achieved status characteristics (Ridgeway, 1991) regulate their propensity to engage in corporate philanthropy after achieving success. Their framework suggests that successful first-generation founders' preferences and choices are regulated by their social backgrounds prior to achieving success, in ways that may matter for other corporate social and economic outcomes. We propose that this framework of founders' prior ascribed (such as gender, social class, ethnicity etc.) and achieved (such as educational attainment, work experiences, industry exposure etc.) status characteristics influencing firms' socio-economic outcomes could be extended to the FBG research context. For example, future FBG research can examine how these status characteristics of the controlling-family leaders, across generational cohorts, regulates leaders' choices on crucial governance related processes and outcomes such as succession planning – particularly the role of gender, management team professionalization, board design and dependence on public and private financial markets.

(ii) Family Business research: Family business scholarship, usually set in developed market economies, has examined the role of socio-emotional wealth (SEW) (Gomez-Mejia et al., 2007). SEW is a key construct in this field, and consistent with the UET perspective, refers to non-pecuniary benefits (such as a psychological sense of pride and values around leaving a legacy) that a focal controlling family obtains from the firms it controls. SEW emphasizes relatively *positive* and benign consequences to all stakeholders – such as long-term orientation, stewardship

behaviours, lower CEO compensation etc. (cf. Gomez-Mejia et.al. 2011 for a comprehensive review). Interestingly, although family business scholars study the same ontological entity of the controlling family, albeit in the setting of a mature institutional environment, there has hitherto been little cross-fertilization between the two scholarly communities – only two studies in our review of FBG research theorize the role of SEW; only one paper in the premier journal for family business scholars (*Family Business Review*) examines family-controlled business groups.

More recently, taking advantage of an emerging economy setting, Chen, Chittoor and Vissa (2021) proposed the complementary construct of nepotistic orientation (NO) to refer to the controlling family's mindset that legitimizes the family's first rights over the material resources of the focal firm. Using an Indian empirical sample, they provide indirect evidence of the deleterious effect of NO on CEO compensation. NO emphasizes the *negative* consequences of family control to other stakeholders – such as minority shareholders. NO is conceptually distinct from SEW because the former emphasizes how the focal firm could become a wellspring for the controlling family's material needs whereas SEW emphasizes how the focal firm contributes to the controlling family's emotional and other non-pecuniary endowments.

We speculate that in principle, controlling-families could be heterogenous in SEW as well as NO, irrespective of whether they are situated in mature or emerging economies. However, effective institutional infrastructure in mature economies minimizes nepotism because third-party investors have enough access to less-biased information from neutral intermediaries to make informed judgements and punish lack of transparency by entrepreneurs who display high NO[11]. So even in mature economies, nepotism likely occurs but its effect in public firms is curtailed by well-functioning financial market institutions. We propose that the FBG research context offers a fertile ground for more research on the causes and consequences of the twin constructs of SEW and NO. For example, future FBG research can examine how variation in SEW and NO of controlling families influences their access to international capital markets[12]. Likewise, future FBG research can examine whether and how SEW and NO vary with the generational cohorts controlling FBGs.

(iii) Governance/leadership research: In addition to entrepreneurial and family business research that uses a UET perspective, a large governance/leadership literature uses an UET perspective to theorize and test (mainly using samples of Western publicly listed firms) how professional top management teams' values and cognitive orientation shapes their organizations' conduct and performance (cf. Liu, Fisher and Chen, 2018 for a recent review). The frameworks from this literature could also be usefully extended to an FBG research context to potentially shed new light on prior inconsistent findings. For instance, Chang, et al., (2006) find that FBG affiliated firms are more innovative in one country but not the other. Is it because the FBG leadership teams have different risk-taking propensity or cognitive complexity to handle the uncertainties in innovation? We now turn to another illustrative micro-foundations-based framework, Social Network Theory, in a contiguous domain that could be of interest to FBG research.

Leveraging Social Network Theory (SNT) for FBG research

Drawing from the social embeddedness paradigm of sociology (Coleman, 1990; Burt, 1992; Granovetter, 1985; Uzzi, 1997), social network theory is an influential organizational theory perspective that seeks to understand how an individual actor's[13] (ego) network of relationships with other actors (alters) shapes ego's socio-economic outcomes. The SNT perspective generally emphasizes the role of existing networks and other social structures as effective information pipes and prisms (Podolny, 2001). Network structure (e.g., centrality, density) as well as network quality (e.g., tie strength) have been shown to predict important outcomes (cf. Chen, Mehra, Tasselli & Borgatti, 2022 for a recent review). Overall, SNT literature has largely emphasized a structural perspective, highlighting how actors' network evolution is substantially influenced and constrained by surrounding network ties and the status hierarchies they produce. However, more recently, an "agentic" strand of SNT explores how actors take intentional actions to beneficially and radically reconfigure their networks (cf. Hallen, Davis & Murray, 2020 for a review). The intentional and costly behaviors that actors engage in to overcome structural constraints emphasizes the interplay of agency and structure (Gulati & Srivastava, 2014).

Prior FBG research using a social network lens has largely followed a structural approach. These prior FBG studies mainly examined firm-level factors based on resource flow networks (such as equity crossholdings, buyer-supplier transactions etc.) to identify central and peripheral firms within a focal FBG and study the performance consequences of such intra-BG structural network positions. While useful, these studies are less anchored in a micro-foundational approach since they do not specify how the actions of entities (such as the upper echelon team) within the firm, suitably aggregated, result in the observed empirical regularity. We advocate that FBG research can build on more recent work that advances SNT in 2 relevant, contiguous areas: (i) Family business scholars studying hybrid family firms and (ii) Governance scholars studying economic elites. We outline below how frameworks from these two areas could be leveraged to provide impetus for micro-foundations-based theorizing in the FBG research context.

Recent social network research (Burt, Opper & Zou, 2021) uses data from Chinese family firms to challenge the conventional binary view that firms are either family controlled or not. Burt et al. (2021) propose a hybrid family firm as a third alternative to a firm being either family controlled or not – based on the composition of the advice networks of the firm's founders. We propose that FBG research can leverage this conceptualization – developed in the context of unlisted, first-generation family firms, to theorize on the nature and attributes of a hybrid-FBG. For example, the notion of "hybrid family firm" opens new possibilities for future FBG research to build on Khanna and Rivkin (2006)'s attempt to identify FBG boundaries – both internal, between-firm boundaries as well as external, between-group boundaries.

In addition, political science scholars (cf. Acemoglu, Johnson & Robinson, 2005) have examined how the nature of social ties between economic elites and political elites in a nation-state shapes the economic selection environments faced by firms. This is because the formal and informal rules and regulations (La Porta et al., 1999) that drive firm survival are formulated by political elites whose actions could be systematically shaped by their ties to economic elites (Khan, 2012); in many emerging economy settings, these economic elites are typically drawn from the

controlling families of FBGs (Bertrand & Schoar, 2006). We propose that FBG research can leverage this conceptualization of linkages between economic elites (usually controlling families of FBGs) and economic selection environments, which implies that selection environments could be endogenous to features of controlling families of FBGs. For example, future FBG research can examine how variation in features of controlling families of FBGs (including their SEW and NO), interlinkages between controlling families and their dispersion across industry sectors shape economic selection environments. We thus advocate more empirical research that builds on the pioneering work by Han, Shipilov and Greve (2017) on how marriage ties between controlling families of Korean *Chaebols* influences industry structure.

Until now, we offered illustrations of how micro-foundations-based frameworks from contiguous domains can be usefully leveraged by future FBG scholarship to theoretically enrich relationships identified in prior FBG research. We now turn to an alternative channel (Cell 3) to examine how the FBG research context offers a setting to develop new theories with a micro-foundational approach, that can be relevant to other management scholars.

Illustrative examples of Cell 3 theories that could be relevant for broader Management research.

We illustrate two micro-foundations-based frameworks that leverage the interesting FBG research context – thus advancing the FBG conversation, and at the same time also contribute to the conversation in contiguous sub-fields of Management research. The two illustrative frameworks of this "giving" approach we elaborate on below respectively contribute to research communities on (i) corporate diversification and (ii) strategic resource redeployment – which are important conversations in the broader Management field.

<u>Leveraging FBG context to contribute to scholarship on corporate diversification</u>

The question of the drivers of corporate scope and its link to firm performance outcomes in mature market economies is an enduring, widely-examined and important question in the Management field - see Rumelt (1974) for a seminal account and Schommer, Richter and Karna (2019) for a recent meta-analysis. Explanations for corporate diversification decisions vary –

ranging from reaping the benefits of economies of scope and other synergies, minimizing transaction costs, managerial entrenchment, to dominant logics (Prahalad & Bettis, 1986).

The FBG research context provides fertile ground for formulating and testing new explanations on the drivers of corporate scope. For example, a recent paper (Li et al., 2023) offers a novel theory relevant for corporate unrelated diversification, using the Chinese empirical context to test the conceptual model. They suggest that unrelated diversification may stem from an anticipatory strategy by controlling family leaders to maintain future family harmony. Their argument in a nutshell is: Controlling family leaders understand that a corporation consisting of easily separable business units is easier to divide among the next-generation siblings during the succession planning event; in contrast, tightly inter-related business units increase the odds of debilitating sibling conflicts. Hence the current generation controlling family leaders intentionally diversify into unrelated industries as a way of preserving family harmony in the next generation. Li et al. (2023) test and find support for their arguments using the Chinese context. Apart from contributing to FBG research, this study also makes important contributions to the literature on corporate scope more broadly, by offering a novel *family-harmony* based explanation for unrelated diversification.

Leveraging FBG context to contribute to scholarship on resource redeployment

The resource redeployment literature in strategy posits that reallocating non-financial resources across internal units is a key value proposition of multi-unit firms (cf. Helfat & Eisenhardt, 2004; Sakhartov & Folta, 2014). Explanations on the antecedents of reallocation of managerial resources generally focus on the technical aspects of how a firm leverages managerial human capital to enhance business unit performance (Karim & Williams, 2012).

Again, the FBG research context provides fertile ground for developing new explanations on the drivers of resource redeployment in multi-unit firms. For example, a recent study by Tsolmon and Pattaconi (2023) offers a novel theory relevant to resource redeployment literature, using a sample of European firms operating globally to test their model. They suggest that high-trust managers (i.e.: family members) are more likely, compared to low-trust (i.e.: non-family

executives) to be allocated to business units situated in regions with weak institutions or with joint venture business units where alignment of interests between the manager and controlling shareholders is essential. Apart from contributing to FBG research, this study also makes important contributions to the resource redeployment and strategic human capital literatures in the broader Management field by providing a novel explanation on how managers are matched to business units in a multi-business corporation.

Until now, we have proposed ways to advance the FBG conversation with potentially new explanations, drawing on generative new theoretical frameworks with a micro-foundational approach, to enrich our understanding of previously examined relationships as outlined in Figure 1. We now turn to an alternative pathway to advance FBG research – which is to explore opportunities to study new relationships that are currently missing in FBG research. In essence, to expand Figure 1 by examining, through a micro-foundations approach, drivers of variation of hitherto unstudied outcomes that could be important.

Expanding FBG research by exploring new relationships

Our review of extant FBG literature reveals lacunae in our understanding on the emergence and the dissolution of FBGs. While extant work has examined how national contexts regulate the relative dominance of FBGs in national economies (e.g., Guillén, 2000), how FBGs cooperate and expand through marriage ties (e.g., Han, Shipilov & Greve, 2017), and the impact of controlling family's succession planning on market entry (e.g., Gu, Lu & Chung 2016), we lack an understanding on how FBGs emerge to begin with and whether or how FBG structures dissolve.

We propose that FBG formation and FBG dissolution processes are important new research questions for the field, that could be usefully examined through a micro-foundations approach. For example, future research on FBG formation might examine emergence of new FBGs and shed light on how founding conditions shape controlling families' behaviors and resultant FBG emergence outcomes. We expect future research to conceptualize emergence in different ways, based on the founding process. For example, recent entrepreneurship research with a UET perspective - Kinger

Hans and Vissa (2022), provides anecdotal evidence that some successful *de novo* entrepreneurs aspire to build a family-controlled business group, while others seek to build professional-executive run organizations. Indeed, to the extent that family-controlled groups emerge from entrepreneurial founder-led organizations, shedding light on how such Founder heterogeneity shapes FBG emergence processes seems crucial for both FBG as well as entrepreneurship research and could serve as a way to integrate these hitherto distinct areas of scholarly enquiry.

Likewise, popular press accounts suggest new FBGs may also emerge from the process of division of existing FBGs because inter-generational transfer of control might sometimes result in a family separation (amicable or otherwise), which constitutes a different pathway for FBG emergence. We suggest that future FBG research explicitly studies these different FBG emergence processes in ways that are consistent with a micro-foundational approach.

Furthermore, a more complete understanding of the FBG phenomenon requires that we also address the question of when and how FBGs cease to operate as an organizational form. We propose that future FBG research actively examine this issue by conceptualizing FBG dissolution. For example, an FBG might cease to exist because of an acquisition event; more interestingly, it is unclear whether an FBG whose senior management team is completely professionalized can still be conceived as an FBG. In short, theorizing FBG dissolution seems like an important next step. In addition, building theory on how controlling families' preferences and choices as well as their interaction with institutional regimes might shape FBG dissolution processes is a promising arena for exploration.

An important issue related to FBG dissolution is to understand the features of Family Offices[14] and the linkages between Family Offices and operating firms within FBGs. Controlling families are commonly thought to use Family Offices to deploy and grow their wealth, with controlling families continually having to face the question of "stay-on or sell-out" – in other words, whether they should continue to act as controlling-owners and operating executives in their businesses or become pure investors, via their Family Office structures. However, recent practitioner accounts

(e.g., Roll, 2023) suggest that Family Offices could also serve as arenas to manage inter-generational conflicts, maintain family legacy and build family legitimacy through strategic philanthropy and impact investing. Given the rising importance of broader societal grand challenges (George et.al., 2016) particularly in environmental, social and governance (ESG) goals, examining the role of Family Offices in the context of family and corporate philanthropy seems like an important direction for future FBG research.

CONCLUSION

In sum, we suggest that research on FBGs to date has covered significant intellectual ground. The fundamental questions of antecedents and consequences of FBG affiliation and several moderating variables have been explored in the past. Table 1 and Figure 1 (along with online appendix Table A3) taken together summarize extant FBG research in a parsimonious conceptual scheme, which reveals that FBG research is predominantly focused on structural theorizing. In addition, Table 2 and Figure 2 provide pathways through which future FBG research can re-orient away from structural theorizing and move toward behavioral frameworks-based theorizing, which could serve as promising micro-foundations that also help integrate FBG research with contiguous Management sub-fields.

In addition, Table 2 and Figure 2 also help advance FBG research by revealing theoretical 'white spaces' or 'less-crowded spaces' that are under-explored and promising frameworks and contexts to study them. Overall, this exhaustive review provides ways to reorient future research on family-controlled businesses across the world by shining light on interesting new research questions and promising new theoretical approaches that are consistent with a micro-foundational approach. As importantly, this review's proposed research pathways increase the odds of consilience across FBG and contiguous Management literatures on Entrepreneurship, Family Business and Strategy and Organizations, thus promoting cumulative knowledge creation in our broader Management field, that benefits scholarship and practice alike.

REFERENCES

Acemoglu, D., Johnson, S., & Robinson, J. A. 2005. Institutions as a fundamental cause of long-run growth. *Handbook of Economic Growth*, 1: 385–472.

Aguilera, R.V., Crespí-Cladera, R., Infantes, P. M., & Pascual-Fuster, B. 2020. Business groups and internationalization: Effective identification and future agenda. *Journal of World Business*, 55: 101050.

Ahuja, G., Capron, L., Lenox, M., & Yao, D. A. 2018. Strategy and the institutional envelope. *Strategy Science*, 3: 2–10.

Almeida, H., Kim, C. S., & Kim, H. B. 2015. Internal capital markets in business groups: Evidence from the Asian financial crisis. *The Journal of Finance*, 70: 2539–2586.

Amsden, A. H. 1989. *Asia's next giant: South Korea and late industrialization*. New York: Oxford University Press.

Bae, G. S., Cheon, Y. S., & Kang, J. K. 2008. Intragroup propping: Evidence from the stock-price effects of earnings announcements by Korean business groups. *The Review of Financial Studies*, 21: 2015–2060.

Bae, K. H., Kang, J. K., & Kim, J. M. 2002. Tunneling or value added? Evidence from mergers by Korean business groups. *The Journal of Finance*, 57: 2695–2740.

Baek, J.S., Kang, J.K., & Lee, I. 2006. Business groups and tunneling: Evidence from private securities offerings by Korean chaebols. *The Journal of Finance*, 61: 2415–2449.

Baek, J. S., Kang, J. K., & Park, K. 2004. Corporate governance and firm value: evidence from the Korean financial crisis. *Journal of Financial Economics*, 71: 265–313.

Beaver, W. H., Cascino, S., Correia, M., & McNichols, M. F. 2019. Group affiliation and default prediction. *Management Science*, 65: 3559–3584.

Bena, J., & Ortiz-Molina, H. 2013. Pyramidal ownership and the creation of new firms. *Journal of Financial Economics*, 108: 798–821.

Bertrand, M., Johnson, S., Samphantharak, K., & Schoar, A. 2008. Mixing family with business: A study of Thai business groups and the families behind them. *Journal of Financial Economics*, 88: 466–498.

Bertrand, M., Mehta, P., & Mullainathan, S. 2002. Ferreting out tunneling: An application to Indian business groups. *The Quarterly Journal of Economics*, 117: 121–148.

Bertrand, M., & Schoar, A. 2006. The role of family in family firms. *Journal of Economic Perspectives*, 20: 73–96.

Bonacchi, M., Cipollini, F., & Zarowin, P. 2018. Parents' use of subsidiaries to "push down" earnings management: Evidence from Italy. *Contemporary Accounting Research*, 35: 1332–1362.

Boutin, X., Cestone, G., Fumagalli, C., Pica, G., & Serrano-Velarde, N. 2013. The deep-pocket effect of internal capital markets. *Journal of Financial Economics*, 109: 122–145.

Bu, J., & Cuervo-Cazurra, A. 2020. Informality costs: Informal entrepreneurship and innovation in emerging economies. *Strategic Entrepreneurship Journal*, 14: 329–368.

Buchuk, D., Larrain, B., Muñoz, F., & Urzúa I., F. 2014. The internal capital markets of business groups: Evidence from intra-group loans. *Journal of Financial Economics*, 112: 190–212.

Burt, R. S. 1992. *The social structure of competition*. Harvard University Press.

Burt, R. S., Opper, S., & Zou, N. 2021. Social network and family business: Uncovering hybrid family firms. *Social Networks*, 65: 141–156.

Cainelli, G., Giannini, V., & Iacobucci, D. 2020. Small firms and bank financing in bad times. *Small Business Economics*, 55: 943–953.

Carney, M., & Gedajlovic, E. 2002. The co-evolution of institutional environments and organizational strategies: The rise of family business groups in the ASEAN region. *Organization Studies*, 23: 1–29.

Carney, M., Gedajlovic, E. R., Heugens, P. P. M. A. R., van Essen, M., & van Oosterhout, J. 2011. Business group affiliation, performance, context, and strategy: A meta-analysis. *Academy of Management Journal*, 54: 437–460.

Castaldi, S., Gubbi, S. R., Kunst, V. E., & Beugelsdijk, S. 2019. Business group affiliation and foreign subsidiary performance. *Global Strategy Journal*, 9: 595–617.

Caves, R. E. 1989. International differences in industrial organization. In R. Schmalensee & R. Willig (Eds.), *Handbook of Industrial Organization*. 1225–1250.

Chacar, A., & Vissa, B. 2005. Are emerging economies less efficient? Performance persistence and the impact of business group affiliation. *Strategic Management Journal*, 26: 933–946.

Chakrabarti, A., Singh, K., & Mahmood, I. 2007. Diversification and performance: evidence from East Asian firms. *Strategic Management Journal*, 28: 101–120.

Chang, S. J. 2003. Ownership structure, expropriation, and performance of group-affiliated companies in Korea. *Academy of Management Journal*, 46: 238–253.

Chang, S. J., Chung, C. N., & Mahmood, I. P. 2006. When and how does business group affiliation promote firm innovation? A tale of two emerging economies. *Organization Science*, 17: 637–656.

Chang, S. J., & Hong, J. 2000. Economic performance of group-affiliated companies in Korea: Intragroup-resource sharing and internal business transactions. *Academy of Management Journal*, 43: 429–448.

Chang, S. J., & Hong, J. 2002. How much does the business group matter in Korea? *Strategic Management Journal*, 23: 265–274.

Chen, G., Chittoor, R., & Vissa, B. 2015. Modernizing without westernizing: Social structure and economic action in the Indian financial sector. *Academy of Management Journal*, 58: 511–537.

Chen, G., Chittoor, R., & Vissa, B. 2021. Does nepotism run in the family? CEO pay and pay-performance sensitivity in Indian family firms. *Strategic Management Journal*, 42: 1326–1343.

Chen, H., Mehra, A., Tasselli, S., & Borgatti, S. P. 2022. Network dynamics and organizations: A review and research agenda. *Journal of Management*, 48: 1602–1660.

Chittoor, R., Aulakh, P. S., & Ray, S. 2015. What drives overseas acquisitions by Indian firms? A behavioral risk-taking perspective. *Management International Review*, 55: 255–275.

Chittoor, R., Aulakh, P. S., & Ray, S. 2019. Microfoundations of firm internationalization: The owner CEO effect. *Global Strategy Journal*, 9: 42–65.

Chittoor, R., Kale, P., & Puranam, P. 2015. Business groups in developing capital markets: Towards a complementarity perspective. *Strategic Management Journal*, 36: 1277–1296.

Choi, J. J., Jo, H., Kim, J., & Kim, M. S. 2018. Business groups and corporate social responsibility. *Journal of Business Ethics*, 153: 931–954.

Choi, J. J., Park, S. W., & Yoo, S. S. 2007. The value of outside directors: Evidence from corporate governance reform in Korea. *Journal of Financial and Quantitative Analysis*, 42: 941–962.

Chu, W. 2004. Are group-affiliated firms really more profitable than nonaffiliated? *Small Business Economics*, 22: 391–405.

Chung, H. M., Dahms, S., & Kao, P. T. 2021. Emerging market multinational family business groups and the use of family managers in foreign subsidiaries. *Management International Review*, 61: 57–89.

Chung, C. N., & Luo, X. 2008a. Institutional logics or agency costs: The influence of corporate governance models on business group restructuring in emerging economies. *Organization Science*, 19: 766–784.

Chung, C. N., & Luo, X. 2008b. Human agents, contexts, and institutional change: The decline of family in the leadership of business groups. *Organization Science*, 19: 124–142.

Chung, C. N., & Luo, X. R. 2013. Leadership succession and firm performance in an emerging economy: Successor origin, relational embeddedness, and legitimacy. *Strategic Management Journal*, 34: 338–357.

Claessens, S., Djankov, S., & Lang, L. H. P. 2000. The separation of ownership and control in East Asian Corporations. *Journal of Financial Economics*, 58: 81–112.

Coleman, J.S., 1990. *Foundations of social theory*. Harvard university press.

Dau, L. A., Ayyagari, M., & Spencer, J. 2015. Strategic responses to FDI in emerging markets: Are core members more responsive than peripheral members of business groups? *Academy of Management Journal*, 58: 1869–1894.

Dau, L. A., Morck, R., & Yeung, B. Y. 2021. Business groups and the study of international business: A Coasean synthesis and extension. *Journal of International Business Studies*, 52: 161–211.

Devinney, T. M. 2013. Is microfoundational thinking critical to management thought and practice? *Academy of Management Perspectives*, 27: 81–84.

Dewenter, K., Novaes, W., & Pettway, R. H. 2001. Visibility versus complexity in business groups: Evidence from Japanese Keiretsu. *Journal of Business*, 74: 79–100.

Douma, S., George, R., & Kabir, R. 2006. Foreign and domestic ownership, business groups, and firm performance: evidence from a large emerging market. *Strategic Management Journal*, 27: 637–657.

Elia, S., Munjal, S., & Scalera, V. G. 2020. Sourcing technological knowledge through foreign inward licensing to boost the performance of Indian firms: The contingent effects of internal R&D and business group affiliation. *Management International Review*, 60: 695–721.

Faccio, M., & Lang, L. H. P. 2002. The ultimate ownership of Western European corporations. *Journal of Financial Economics*, 65: 365–395.

Felin, T., & Foss, N. J. 2005. Strategic organization: A field in search of micro-foundations. *Strategic organization*, *3*(4), 441-455.

Ferris, S. P., Kim, K. A., & Kitsabunnarat, P. 2003. The costs (and benefits?) of diversified business groups: The case of Korean chaebols. *Journal of Banking & Finance*, 27: 251–273.

Gaur, A. S., Pattnaik, C., Singh, D., & Lee, J. Y. 2019. Internalization advantage and subsidiary performance: The role of business group affiliation and host country characteristics. *Journal of International Business Studies*, 50: 1253–1282.

Gaur, A., & Delios, A. 2015. International diversification of emerging market firms: The role of ownership structure and group affiliation. *Management International Review*, 55: 235–253.

Gedajlovic, E., Carney, M., Chrisman, J. J., & Kellermanns, F. W. 2012. The adolescence of family firm research: Taking stock and planning for the future. *Journal of Management*, 38: 1010–1037.

George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. 2016. Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, 59: 1880–1895.

Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J., & Moyano-Fuentes, J. 2007. Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative science quarterly*, *52*(1), 106-137.

Gómez -Mejia, L. R., Cruz, C., Berrone, P., & Castro, J. de. 2011. The bind that ties: Socioemotional wealth preservation in family firms. *Academy of Management Annals*, 5: 653–707.

Gopal, S., Manikandan, K. S., & Ramachandran, J. 2021. Are there limits to diversification in emerging economies? Distinguishing between firm-level and business group strategies. *Journal of Management Studies*, 58: 1532–1568.

Gopalan, R., Nanda, V., & Seru, A. 2007. Affiliated firms and financial support: Evidence from Indian business groups. *Journal of Financial Economics*, 86: 759–795.

Gopalan, R., Nanda, V., & Seru, A. 2014. Internal capital market and dividend policies: Evidence from business groups. *Review of Financial Studies*, 27: 1102–1142.

Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, *91*(3), 481–510.

Granovetter, M. 1994. Business groups. In N. J. Smelser & R. Swedberg (Eds.), *The Handbook of Economic Sociology*: 453-75. Princeton: Princeton University Press.

Granovetter, M. 2005. Business groups and social organization. In N. J. Smelser & R. Swedberg (Eds.), *The Handbook of Economic Sociology*: 429–50. Princeton: Princeton University Press.

Greve, H. R. 2013. Microfoundations of management: Behavioral strategies and levels of rationality in organizational action. *Academy of Management Perspectives*, 27:103–119.

Griffin, J. J., & Youm, Y. N. 2018. Voluntarily disclosing prosocial behaviors in Korean firms. *Journal of Business Ethics*, 153: 1017–1030.

Gu, Q., Lu, J. W., & Chung, C. N. 2019. Incentive or disincentive? A socioemotional wealth explanation of new industry entry in family business groups. *Journal of Management*, 45: 645–672.

Gubbi, S. R., Aulakh, P. S., & Ray, S. 2015. International search behavior of business group affiliated firms: Scope of institutional changes and intragroup heterogeneity. *Organization Science*, 26: 1485–1501.

Gubbi, S. R., & Elango, B. 2016. Resource deepening vs. resource extension: Impact on asset-seeking acquisition performance. *Management International Review*, 56: 353–384.

Guillén, M. F. 2000. Business groups in emerging economies: A resource-based view. *The Academy of Management Journal*, 43: 362–380.

Guillén, M. F. 2003. Experience, imitation, and the sequence of foreign entry: Wholly owned and joint-venture manufacturing by South Korean firms and business groups in China, 1987-1995. *Journal of International Business Studies*, 34: 185–198.

Gulati, R., & Srivastava, S. B. 2014. Bringing agency back into network research: Constrained agency and network action. *Contemporary Perspectives on Organizational Social Networks, Research in the Sociology of Organizations*, 40:73–93.

Guzzini, E., & Iacobucci, D. 2014. Ownership as R&D incentive in business groups. *Small Business Economics*, 43: 119–135.

Hallen, B. L., Davis, J. P., & Murray, A. 2020. Entrepreneurial network evolution: Explicating the structural localism and agentic network change distinction. *Academy of Management Annals*, 14: 1067–1102.

Hambrick, D. C. 2007. Upper echelons theory: An update. *Academy of Management Review*, 32: 334–343.

Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9: 193–206.

Han, J., Shipilov, A.V., & Greve, H. R. 2017. Unequal bedfellows: Gender role-based deference in multiplex ties between Korean business groups. *Academy of Management Journal*, 60: 1531–1553.

Helfat, C. E., & Eisenhardt, K. M. 2004. Inter-temporal economies of scope, organizational modularity, and the dynamics of diversification. *Strategic Management Journal*, 25: 1217–1232.

Holmes, R. M., Hoskisson, R. E., Kim, H., Wan, W. P., & Holcomb, T. R. 2018. International strategy and business groups: A review and future research agenda. *Journal of World Business*, 53: 134–150.

Hoskisson, R. E., Cannella, A. A., Tihanyi, L., & Faraci, R. 2004. Asset restructuring and business group affiliation in French civil law countries. *Strategic Management Journal*, 25: 525–539.

Iacobucci, D., & Rosa, P. 2005. Growth, diversification, and business group formation in entrepreneurial firms. *Small Business Economics*, 25: 65–82.

Jaskiewicz, P., Combs, J. G., Shanine, K. K., & Kacmar, K. M. 2016. Introducing the family: A review of family science with implications for management research. *Academy of Management Annals*, 11: 309-341.

Joe, D. Y., & Oh, F. D. 2018. Spillover effects within business groups: The case of Korean chaebols. *Management Science*, 64: 1396–1412.

Karim, S., & Williams, C. 2012. Structural knowledge: How executive experience with structural composition affects intrafirm mobility and unit reconfiguration. *Strategic Management Journal*, 33: 681–709.

Keister, L. A. 1998. Engineering growth: Business group structure and firm performance in China's transition economy. *American Journal of Sociology*, 104: 404–440.

Khan, S. 2012. The sociology of elites. *Annual Review of Sociology*, 38: 361–377.

Khanna, T., & Palepu, K. G. 1997. Why focused strategies may be wrong for emerging markets. *Harvard Business Review*.

Khanna, T., & Palepu, K. 2000a. Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance*, 55: 867–891.

Khanna, T., & Palepu, K. 2000b. The future of business groups in emerging markets: Long-run evidence from Chile. *The Academy of Management Journal*, 43: 268–285.

Khanna, T., & Rivkin, J. W. 2001. Estimating the performance effects of business groups in emerging markets. *Strategic Management Journal*, 22: 45–74.

Khanna, T., & Rivkin, J. W. 2006. Interorganizational ties and business group boundaries: Evidence from an emerging economy. *Organization science*, *17*(3), 333-352.

Khanna, T., & Yafeh, Y. 2005. Business groups and risk sharing around the world. *The Journal of Business*, 78: 301–340.

Khanna, T., & Yafeh, Y. 2007. Business groups in emerging markets: Paragons or parasites? *Journal of Economic Literature*, 45: 331–372.

Kim, R. 2016. Financial weakness and product market performance: Internal capital market evidence. *Journal of Financial and Quantitative Analysis*, 51: 307–332.

Kim, H., Kim, H., & Hoskisson, R. E. 2010. Does market-oriented institutional change in an emerging economy make business-group-affiliated multinationals perform better? An institution-based view. *Journal of International Business Studies*, 41: 1141–1160.

Kim, B., Pae, J., & Yoo, C. Y. 2019. Business groups and tunneling: Evidence from corporate charitable contributions by Korean companies. *Journal of Business Ethics*, 154: 643–666.

Kim, H., & Song, J. 2017. Filling institutional voids in emerging economies: The impact of capital market development and business groups on M&A deal abandonment. *Journal of International Business Studies*, 48: 308–323.

Kinger Hans, L., & Vissa, B. 2022. Who gives back? Evidence from India on successful entrepreneurial exit and involvement in philanthropy. *Organization Science*.

Kumar, V., Gaur, A. S., & Pattnaik, C. 2012. Product diversification and international expansion of business groups: Evidence from India. *Management International Review*, 52: 175–192.

Kumar, V., Singh, D., Purkayastha, A., Popli, M., & Gaur, A. 2020. Springboard internationalization by emerging market firms: Speed of first cross-border acquisition. *Journal of International Business Studies*, 51: 172–193.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. 1999. Corporate ownership around the world. *The Journal of Finance*, 54: 471–517.

Lamin, A. 2013. Business groups as information resource: An investigation of business group affiliation in the Indian software services industry. *Academy of Management Journal*, 56: 1487–1509.

Leff, N. H. 1978. Industrial organization and entrepreneurship in the developing countries: The Economic Groups. *Economic Development and Cultural Change*, 26: 661–675.

Li, J., Lee, Y. & Chen, G., 2023. Succession concern and family firms' acquisitions: Evidence from China's one-child policy reform. Working paper.

Liu, D., Fisher, G., & Chen, G. 2018. CEO attributes and firm performance: A sequential mediation process model. *Academy of Management Annals*, 12: 789–816.

Luo, X., & Chung, C.N. 2005. Keeping it all in the family: The role of particularistic relationships in business group performance during institutional transition. *Administrative Science Quarterly*, 50: 404–439.

Mahmood, I., Chung, C. N., & Mitchell, W. 2013. The evolving impact of combinatorial opportunities and exhaustion on innovation by business groups as market development increases: The case of Taiwan. *Management Science*, 59: 1142–1161.

Mahmood, I., Chung, C. N., & Mitchell, W. 2017. Political connections and business strategy in dynamic environments: How types and destinations of political ties affect business diversification in closed and open political economic contexts. *Global Strategy Journal*, 7: 375–399.

Mahmood, I. P., & Mitchell, W. 2004. Two faces: Effects of business groups on innovation in emerging economies. *Management Science*, 50: 1348–1365.

Mahmood, I. P., & Zheng, W. 2009. Whether and how: Effects of international joint ventures on local innovation in an emerging economy. *Research Policy*, 38: 1489–1503.

Mahmood, I. P., Zhu, H., & Zaheer, A. 2017. Centralization of intragroup equity ties and performance of business group affiliates. *Strategic Management Journal*, 38: 1082–1100.

Mahmood, I. P., Zhu, H., & Zajac, E. J. 2011. Where can capabilities come from? Network ties and capability acquisition in business groups. *Strategic Management Journal*, 32: 820–848.

Makri, M., Lane, P. J., & Gomez-Mejia, L. R. 2006. CEO incentives, innovation, and performance in technology-intensive firms: A reconciliation of outcome and behavior-based incentive schemes. *Strategic Management Journal*, 27: 1057–1080.

Manikandan, K. S., & Ramachandran, J. 2015. Beyond institutional voids: Business groups, incomplete markets, and organizational form. *Strategic Management Journal*, 36: 598–617.

Manikutty, S. 2000. Family business groups in India: A resource-based view of the emerging trends. *Family Business Review*, 13: 279–292.

Masulis, R. W., Pham, P. K., & Zein, J. 2011. Family business groups around the world: Financing advantages, control motivations, and organizational choices. *The Review of Financial Studies*, 24: 3556–3600.

Masulis, R. W., Pham, P. K., & Zein, J. 2020. Family business group expansion through IPOs: The role of internal capital markets in financing growth while preserving control. *Management Science*, 66: 5191–5215.

Min, B. S. 2016. Effects of outsider's monitoring on capital structure and corporate growth strategy: Evidence from a natural experiment. *Journal of Business Ethics*, 152: 459–475.

Minetti, R., & Yun, S. G. 2015. Institutions, bailout policies, and bank loan contracting: Evidence from Korean Chaebols. *Review of Finance*, 19: 2223–2275.

Mithas, S., Ramasubbu, N., & Sambamurthy, V. 2011. How information management capability influences firm performance. MIS Quarterly: *Management Information Systems*, 35: 237–256.

Morck, R., & Yeung, B. 2003. Agency problems in large family business groups. *Entrepreneurship Theory and Practice*, 367–382.

Murillo, D., & Sung, Y. D. (2013). Understanding Korean capitalism: Chaebols and their corporate governance. *ESADEgeo Center for Global Economy and Geopolitics Position Paper*, *33*.

Oh, W. Y., Chang, Y. K., & Kim, T. Y. 2018. Complementary or substitutive effects? Corporate governance mechanisms and corporate social responsibility. *Journal of Management*, 44: 2716–2739.

Palepu, K. G., & Khanna, T. 1998. Institutional voids and policy challenges in emerging markets. *The Brown Journal of World Affairs*, 5: 71–78.

Podolny, J. M. 2001. Networks as the pipes and prisms of the market. *American Journal of Sociology*, 10: 33–60.

Prahalad, C. K., & Bettis, R. A. 1986. The dominant logic: A new linkage between diversity and performance. *Strategic Management Journal*, 7: 485–501.

Ray, S., & Ray Chaudhuri, B. 2018. Business group affiliation and corporate sustainability strategies of firms: An investigation of firms in India. *Journal of Business Ethics*, 153: 955–976.

Ridgeway, C. 1991. The social construction of status value: Gender and other nominal characteristics. *Social Forces*, 70: 367–386.

Roll, M. *Family office strategy- Creating a multi-generation legacy*, forthcoming in 2023.

Rumelt, R.P. 1974. *Strategy, structure and economic performance*, Boston: Harvard Business School Publishing.

Sakhartov, A. v., & Folta, T. B. 2014. Resource relatedness, redeployability, and firm value. *Strategic Management Journal*, 35: 1781–1797.

Santangelo, G. D., & Stucchi, T. 2018. Internationalization through exaptation: The role of domestic geographical dispersion in the internationalization process. *Journal of International Business Studies*, 49: 753–760.

Santioni, R., Schiantarelli, F., & Strahan, P. E. 2020. Internal capital markets in times of crisis: The benefit of group affiliation. *Review of Finance*, 24: 773–811.

Schommer, M., Richter, A., & Karna, A. 2019. Does the diversification–firm performance relationship change over time? A meta-analytical review. *Journal of Management Studies*, 56: 270–298.

Sharma, P., Chrisman, J. J., & Gersick, K. E. 2012. 25 years of family business review: Reflections on the past and perspectives for the future. *Family Business Review*, 25: 5–15.

Shaw, J. D., Tangirala, S., Vissa, B., & Rodell, J. B. 2018. New ways of seeing: Theory integration across disciplines. *Academy of Management Journal*, 61: 1–4.

Siegel, J., & Choudhury, P. 2012. A reexamination of tunneling and business groups: New data and new methods. *The Review of Financial Studies*, 25: 1763–1798.

Song, C., & Han, S. H. 2017. Stock market reaction to corporate crime: Evidence from South Korea. *Journal of Business Ethics*, 143: 323–351.

Su, W., & Tan, D. 2018. Business groups and tax havens. *Journal of Business Ethics*, 153: 1067–1081.

Terlaak, A., Kim, S., & Roh, T. 2018. Not good, not bad: The effect of family control on environmental performance disclosure by business group firms. *Journal of Business Ethics*, 153: 977–996.

Tsolmon, U. and Patacconi, A., 2022. Managing multi-unit firms in uncertain environments: The role of trusted managers. In *Academy of Management Proceedings* (Vol. 2022, No. 1, p. 14099). Briarcliff Manor, NY 10510: Academy of Management.

Uzzi, B. 1997. Towards a network perspective on organizational decline. *International Journal of Sociology and Social Policy*, 17: 111–155.

Vissa, B., Greve, H. R., & Chen, W. R. 2010. Business group affiliation and firm search behavior in India: Responsiveness and focus of attention. *Organization Science*, 21: 696–712.

Yang, K. P., & Schwarz, G. M. 2016. A multilevel analysis of the performance implications of excess control in business groups. *Organization Science*, 27: 1219–1236.

Yiu, D. W., Lu, Y., Bruton, G. D., & Hoskisson, R. E. 2007. Business groups: An integrated model to focus future research. *Journal of Management Studies*, 44: 1551–1579.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. 2008. Corporate governance in emerging economies: A review of the principal–principal perspective. *Journal of Management Studies*, 45: 196–220.

Zhu, H., & Chung, C. N. 2014. Portfolios of political ties and business group strategy in emerging economies: Evidence from Taiwan. *Administrative Science Quarterly*, 59: 599–638.

FOOTNOTES

[1] https://www.ft.com/content/3405a512-5cbb-11e1-8f1f-00144feabdc0

[2] Excluding these 5 journals reduces the pool of papers from 98 to 82 but does not materially affect our key findings.

[3] Search terms include "business groups", "chaebols", "keiretsu", "business houses", "zaibatsu", "grupos economicos", "guanxiqiye,", and "qiye jituan". Even though there exist systematic reviews of BG research till 2007, we decided to include papers from 1995 till 2007 because no prior review has focused solely on FBGs. This inclusion criterion allowed us to compare prior research on FBGs with more recent time periods.

[4] Countries that fulfilled this criterion include, Argentina, Brazil, Chile, Columbia, Finland, France, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Portugal, Singapore, Spain, Sri Lanka, Sweden, Taiwan, Thailand, Turkey, and Venezuela. While there have been other cross-country studies of ownership structures e.g., La Porta, Lopez-de-Silanes, & Shleifer (1999), Claessens, Djankov, & Lang (2000) and Faccio and Lang (2002)), Masulis et al. (2011) utilizes the most comprehensive dataset to-date, comprising 3007 listed firms across 45 sample countries.

[5] In case of papers that study cross-country samples, we used a threshold wherein if 75% or more of the countries in the study sample were FBG focused countries, then the paper was categorized as an FBG paper.

[6] Table A3 in the online appendix provides a summary of the articles underlying Figure 1 & Table 1, and is organized around the dominant relationships among key constructs, following the exact same structure of panels A through E. Panels provide study details, including key variables, theoretical lens, and a brief description of the findings with directionality. To further aid the interpretation of findings from prior research, we also captured the features of the empirical samples such as - size of firms, whether firms are listed or unlisted, and the overall country context.

[7] We note that one of these studies (Guillén, 2000) incorporates a political science perspective as well in the theorizing.

[8,9,10] Link(s) with less than three papers, hence not depicted in Figure 1.

[11] The concerns around related-party transactions and kin relations in the failed WeWorks IPO is a prime example: https://www.bloomberg.com/news/articles/2019-09-28/wework-was-a-family-affair-until-things-got-complicated

[12] The recent volatility in Adani Group (an Indian FBG) companies' access to global financial markets is a case in point https://www.ft.com/content/bce10585-b77e-4b0a-ba0a-f5f1d63580b3

[13] SNT has been applied across levels of analyses. Thus, the actor can be individual humans, teams, firms etc.

[14] A Family Office refers to an entity established by a wealthy individual to manage the family's wealth.

Table 1

Theoretical Perspectives in Prior Empirical FBG Research

Links (1)	No. of papers (2)	Theoretical variety (across disciplines) [a] (3)	Theoretical variety (within disciplines) [b] (4)	Directionality of effect[c] (5)						
					Main effect		***Moderated effect***			***Mixed***
Panel A.1. Link 1-4: Effects of FBG affiliation on financial performance	7	**LOW** Economics: 7 Sociology: 0 Political Science: 0	**MEDIUM** Institutional Voids: 3 PPA: 2 Internal capital markets: 2	***Key DV*** Fin. Performance (Acctng.) Fin. Performance (Market)	Positive 2 2	Negative 1 1	Positive 0 0	Negative 0 0	Curvilinear 0 0	 1 0
Panel A.2. Links 1-4(5) and 5-4(1)[e]: Interaction effects of FBG affiliation with environmental factors	9	**LOW*** Economics: 9 Sociology: 0 Political Science: 1	**HIGH*** Institutional Voids: 4 Internal Capital Markets: 2 Institutional Economics: 1 RBV: 1 PPA: 1 Political Science: 1	***Key DV*** Fin. Performance (Acctng.) Fin. Performance (Market)	***Main effect*** Positive 0 0	 Negative 0 0	***Moderated effect*** Positive 4 1	 Negative 2 1	 Curvilinear 0 0	***Mixed*** 1 0
Panel A.3. Link 1-4(2): Interaction effects of FBG affiliation and FBG heterogeneity	5	**LOW** Economics: 5 Sociology: 0 Political Science: 0	**LOW** Institutional Voids: 4 RBV: 1	***Key DV*** Fin. Performance (Acctng.) Fin. Performance (Market)	***Main effect*** Positive 0 0	 Negative 0 0	***Moderated effect*** Positive 2 1	 Negative 0 1	 Curvilinear 1 0	***Mixed*** 0 0
Panel B. Link 2-4 & 2-4(5): Effects of FBG Heterogeneity on financial performance	13	**LOW** Economics: 10 Sociology: 3 Political Science: 0	**HIGH** Family Economics:1 Information Economics: 2 Institutional Voids: 1 Institutional Theory: 1 Internal Capital Markets: 3 Social Network Theory: 2 Ownership: 1 PPA: 2	***Key DV*** Fin. Performance (Acctng.) Fin. Performance (Market)	***Main effect*** Positive 4 0	 Negative 2 1	***Moderated effect*** Positive 1 0	 Negative 1 0	 Curvilinear 3 0	***Mixed*** 0 1

Links (1)	**No. of papers** (2)	**Theoretical variety (across disciplines)** [a] (3)	**Theoretical variety (within disciplines)** [b] (4)	**Directionality of effect**[c] (5)					
Panel C.1. Link 1-3 & 1-3(2): Effects of FBG affiliation on strategic outcomes	12	**MEDIUM** Economics: 8 Sociology: 4 Political Science: 0	**HIGH*** Institutional Voids: 4 Institutional Theory: 1 Internal Capital Markets: 1 PPA: 2 RBV: 3 Behavioural Theory[#]: 1 Learning[#]: 1 Managerial/Entrep.[#]: 1		***Main effect***		***Moderated effect***			***Mixed***
				Key DV	Positive	Negative	Positive	Negative	Curvilinear	
				Strategic capabilities	5	0	0	1	0	0
				Product market outcomes	1	1	0	1	0	0
				ESG outcomes	1	0	1	1	0	0
Panel C.2. Link 2-3: Effects of FBG heterogeneity on strategic outcomes	16	**MEDIUM** Economics: 7 Sociology: 8 Political Science: 1	**HIGH*** Family Economics:1 Evolutionary Theory: 1 Institutional Theory: 1 Institutional Voids: 1 Internal Capital Markets: 1 Social Network Theory: 3 PPA: 1 Status: 1 Behavioural Theory[#]: 1 Learning[#]: 1 SEW[#]: 2		***Main effect***		***Moderated effect***			***Mixed***
				Key DV	Positive	Negative	Positive	Negative	Curvilinear	
				Strategic capabilities	4	0	0	0	1	0
				Product market outcomes	3	2	2	0	0	0
				ESG outcomes	0	1	1	1	1	0
Panel C.3. Links 1-3(5), 5-3(1) and 2-3(5): Interaction effects of environmental factors and FBG effects on strategic outcomes	20	**MEDIUM*** Economics: 14 Sociology: 6 Political Science: 1	**HIGH*** Information Economics: 2 Institutional Theory: 4 Institutional Voids: 7 Social Network Theory: 2 Political Science: 1 RBV: 3 PPA: 3		***Main effect***		***Moderated effect***			***Mixed***
				Key DV	Positive	Negative	Positive	Negative	Curvilinear	
				Strategic capabilities	0	0	3	2	1	1
				Product market outcomes	0	0	3	3	0	1
				ESG outcomes[d]	0	0	2	2	0	0

Links (1)	No. of papers (2)	Theoretical variety (across disciplines) [a] (3)	Theoretical variety (within disciplines) [b] (4)	Directionality of effect[c] (5)						
Panel D. Links 3-4(1) & 3-4(2)[e]: Influence of strategic factors on financial performance	14	**LOW*** Economics: 15 Sociology: 1 Political Science: 0	**HIGH*** Institutional Voids: 4 Internal Capital Markets: 3 PPA: 6 Institutional Economics: 1 RBV: 4 Institutional Theory: 1		***Main effect***		***Moderated effect***			***Mixed***
				Key DV	Positive	Negative	Positive	Negative	Curvilinear	
				Fin. Performance (Acctng.)	1	2	0	1	0	1
				Fin. Performance (Market)[d]	3	1	2	1	0	1
Panel E[e].Links 1-3(6), 1-4(6), 2-4(6), 5-3(6), 6-3(1), 6-4(1) & 6-4(2): Interaction effects of group level and firm specific factors in FBG affiliated firms	13	**MEDIUM*** Economics: 9 Sociology: 5 Political Science: 0	**HIGH*** Institutional Theory: 3 Institutional Voids: 2 Internal Capital Markets: 1 Social Network Theory: 1 PPA: 4 RBV: 1 Behavioural Theory[#]: 1 Learning[#]: 1		***Main effect***		***Moderated effect***			***Mixed***
				Key DV	Positive	Negative	Positive	Negative	Curvilinear	
				Fin. Performance (Acctng.)	0	0	2	2	0	0
				Fin. Performance (Market)	0	1	1	0	0	0
				Strategic capabilities	0	0	1	0	0	0
				Product market outcomes	0	3	1	1	0	0
				ESG outcomes	0	0	1	0	0	0

Notes:

a: Each paper was categorized under at least one social science discipline - Economics, Sociology or Political Science. Some papers fell under more than one discipline. An overall across-discipline variety score (Herfindahl Hirschman Index (HHI)) was computed as 100-(d1^2+d2^2+d3^2)*100 where d1, d2 and d3 are the shares of each discipline respectively. We used 0-33 threshold for LOW variety, 34-66 for MEDIUM variety, and 67-100 for HIGH variety

b: Each paper was further categorized under at least one specific theoretical framework situated within a social science discipline as follows, for Economics & Sociology:

Economics: Evolutionary Theory, Family Economics, Information Economics, Institutional Economics, Institutional Voids, Internal Capital Markets, Learning (Economics), Ownership, Principal-Principal Agency Theory (PPA) and Resource-Based View (RBV).

Sociology: Behavioural Theory of the Firm, Institutional Theory, Learning (Sociology), Managerial/Entrepreneurial, Social Network Theory, Social Status and Socio-Emotional Wealth (SEW).

An overall within-discipline variety (i.e., HHI) score was computed as 100-(t1^2+t2^2+t3^2...tn^2)*100 where t1, t2...tn are the shares of each framework respectively.

c: Directionality indicates the direction of FBG affiliation effect on the focal DV, either as a main effect or as a moderated effect.

d: Two papers found no effect on environmental, social and governance (ESG) outcomes. One paper found no effect on Fin. Performance (Market) outcome.

e: These are link(s) with less than three papers each (except link 1-3(6)) and hence not depicted in Figure 1.

# Indicates a non-structural theory.

* Indicates that some papers fall under multiple social science disciplines and/or frameworks. Hence, the number of papers in theoretical variety columns add up to more than the total number of papers.

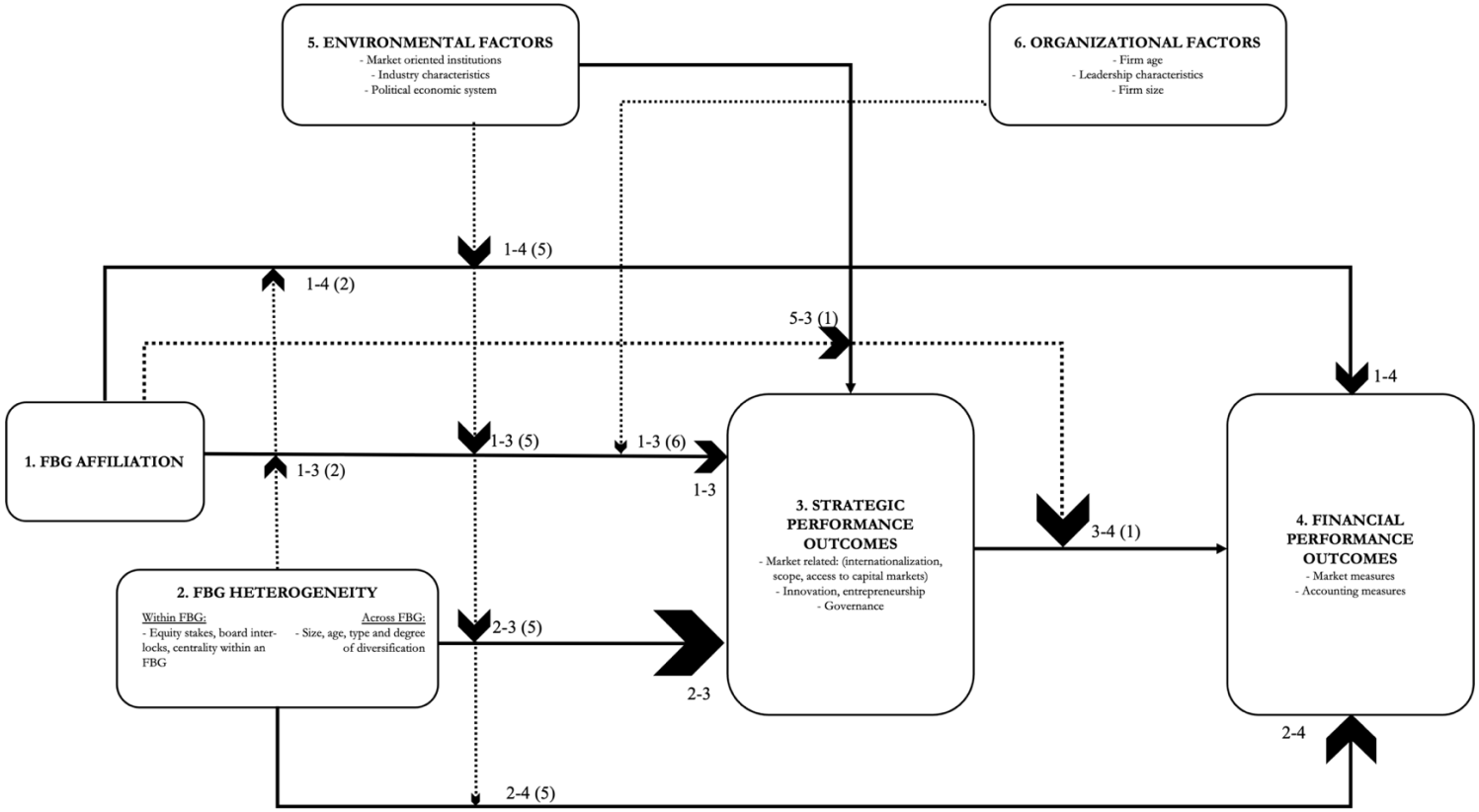
Table 2

Suggestions for injecting theoretical variety to examine existing relationships identified by FBG research

Panel A: Cell 2 - 'Taking' existing micro-foundations based theoretical frameworks from contiguous subfields			
Theoretical Framework	**Scholarly Community**	**Broad Research Questions**	**Links of Figure 1**
Upper echelons theory	Entrepreneurship scholars studying successful financial exits	How does status characteristics of the controlling-family leaders regulate leaders' choices on governance related processes and outcomes such as succession planning, management team professionalization, Board design and dependence on financial markets?	Links 2-3; 2-3(6)
	Family business scholars studying SEW & NO	How does variation in SEW and NO of controlling families influences their access to international capital markets? How does SEW and NO vary with generational cohorts controlling FBGs?	Links 2-3; 2-3(6);
	Governance scholars studying professional senior executive teams	How does variation in orientation towards risk and complexity in FBG top management teams regulate FBGs innovative practices and outcomes? How does variation on communal versus agentic orientations in FBG top management teams regulate FBGs tunnelling behaviour?	Links 2-3; 2-4; 2-4(5)
Social network theory	Family business scholars studying hybrid family firms	What are the attributes of a hybrid FBG? How do FBG boundaries – both internal, between-firm boundaries as well as external, between-group boundaries vary based on the hybrid-ness of the FBG? What are the performance and governance consequences?	Links 1-3; 2-3
	Governance scholars studying economic elites	How does variation in features of controlling families of FBGs (including their SEW and NO), interlocks between controlling families and their industry dispersion shape within-country and between-country economic selection environments? What are the implications for research design choices for conducting empirical FBG research?	Link 2-5
Panel B: Cell 3 - 'Giving' new micro-foundations based theoretical frameworks to contiguous subfields			
Theoretical Framework	**Scholarly Community**	**Broad Research Questions**	**Links of Figure 1**
Theories of family conflict avoidance	Scholars studying corporate diversification	How does the unique consideration of leadership succession and family composition in FBG affect the strategic decisions of corporate acquisition, especially the unrelated acquisition? *[FBG context allows a novel explanation of corporate (unrelated) diversification because of an anticipatory strategy of maintaining future family-harmony]*	Links 2-3; 2-4
Theories of insider-ness & trust in senior executive teams	Scholars studying strategic resource redeployment	How do FBGs deploy their strategic human capital (family members vs. professional managers) to different business units? What are the firm performance implications of different human capital deployments? *[FBG context allows for a novel explanation of resource re-deployment of strategic human capital in multi-unit firms because of minimizing agency costs based on "insider-ness" of senior talent]*	Links 2-3; 2-4

Figure 1

Organizing Framework for Mapping Conceptual Linkages Examined in Prior FBG Research

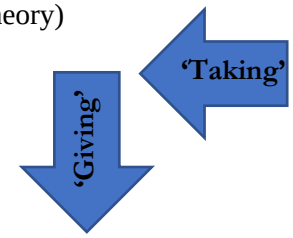


Notes:

1. We identified key links that have been studied across the 98 FBG papers in our review. The framework depicts those links that were examined by three or more papers.
2. Each link is depicted by an arrow.
   a. Solid arrow indicates direct relationship e.g., 1-4 (effect of FBG affiliation on financial performance).
   b. Dashed arrow indicates moderated relationship e.g., 1-4 (5) (effect of FBG affiliation on financial performance, moderated by environmental factors).
   c. The size of the arrowhead indicates the share of papers in that link. There are 16 papers for the most examined link: 2-3, and 3 papers for the least examined link: 2-4(5).

Figure 2

Broadening the Theoretical Palette Associated with the FBG Research Context

	Theory initially developed in an FBG research context	**Theory initially developed in a non-FBG research context**
Phenomenon that are unique to the FBG research context (e.g.: Controlling Family related dynamics – as Founders, family members, as Board members, as operating executives; as controlling investors; coordination across multiple legally independent listed & private firms; related party transactions etc.)	**Cell 1** -The dominant theoretical lenses used in prior empirical research on FBGs (cf. Fig 1 & Table 1) are drawn from the Economics discipline (such as P to P Agency / Institutional Void theory)  	**Cell 2** Applying potentially relevant existing frameworks that utilize a micro-foundations perspective: -Upper echelons theory applied to entrepreneurship, family business and governance/ leadership research contexts -Social Network theory applied to family business and governance research contexts
Phenomenon that are relevant to broader Management research (not just the FBG research context) (e.g.: Firms' conduct in the domains of product or geographic diversification, innovation, corporate social responsibility, executive compensation etc.)	**Cell 3** Using the FBG research context as a setting to develop new frameworks / explanations in the micro-foundations tradition, that are potentially relevant in advancing understanding of phenomenon in contiguous sub-fields such as: - Firm diversification - Resource deployment	**Cell 4** Frameworks in this cell would be less useful to FBG researchers

ONLINE APPENDIX

Table A1
Empirical Research on Family Business Groups (FBGs) from 1995 to 2021 in Social Science Journals

S.No	Field	Journal Title	# of articles	% of articles
1	Management	Academy of Management Journal	8	8.2
2		Administrative Science Quarterly	2	2.0
3		Family Business Review	1	1.0
4		Global Strategy Journal	4	4.1
5		Journal of Business Ethics	10	10.2
6		Journal of International Business Studies	6	6.1
7		Journal of Management	1	1.0
8		Journal of Management Studies	3	3.1
9		Management International Review	6	6.1
10		Management Science	5	5.1
11		Organization Science	8	8.2
12		Research Policy	1	1.0
13		Strategic Entrepreneurship Journal	1	1.0
14		Strategic Management Journal	12	12.2
	TOTAL MANAGEMENT		**68**	**69.4**
15	Finance & Accounting	Contemporary Accounting Research	1	1.0
16		Journal of Accounting Research	1	1.0
17		Journal of Finance	4	4.1
18		Journal of Financial Economics	8	8.2
19		Journal of Financial and Quantitative Analysis	2	2.0
20		Review of Finance	2	2.0
21		Review of Financial Studies	4	4.1
	TOTAL FINANCE & ACCOUNTING		**22**	**22.4**
22	Economics	Journal of Business	1	1.0
23		Quarterly Journal of Economics	1	1.0
24		Small Business Economics	4	4.1
	TOTAL ECONOMICS		**6**	**6.1**
25	Other disciplines	American Journal of Sociology	1	1.0
26		MIS Quarterly	1	1.0
	TOTAL OTHER DISCIPLINES		**2**	**2.0**
	GRAND TOTAL		**98**	**100%**

Note:

1. The table provides the list of journals that published articles that finally met all our screening criteria (see Table A2).
2. The long list of journals included a combination of year 2020's FT50 journals and the *American Journal of Sociology, Global Strategy Journal, Journal of Business, Management International Review,* and *Small Business Economics.*

Table A2
Scope and Methodology of the Systematic Review

Scope dimensions	
Article style	We focus on articles that explicitly test hypotheses, including both qualitative and quantitative work, in which the features of the family business group are included as an independent variable, dependent variable or moderator.
Time window	We review articles published between 1995 to 2021. We picked 1995 as a starting point both because it matches with Granovetter's seminal 1994 theoretical formulation on business groups and the increasing empirical attention paid to business groups as an organizational form (e.g. Ghemawat & Khanna, 1998; Khanna & Palepu, 2000).
Level of analysis	We were agnostic on the level of analysis. However, the 98 papers that we assembled for this review span intra-firm, firm as well as FBG levels of analyses. We did not find papers focused on higher levels of analysis, such as regional clusters or national institutions. In addition, the unit of analysis in our selected papers vary widely – ranging from firms' merger / acquisition transactions, firms' EPS forecasts, firms' financial or innovation performance to business-groups' new market entry to business-groups' financial performance.
Journals included in the search	The list of FT-50 journals (as at 2020) and the *American Journal of Sociology, Global Strategy Journal, Journal of Business, Management International Review,* and *Small Business Economics*. Refer to the main manuscript for more details.
Review methodology	
Databases employed	We searched multiple databases including (a) ABI Business Premium Collection (b) Scopus (c) Business Source Ultimate and publication sources such as Wiley, Springer, INFORMS.
Keywords	We searched for articles with the following words in their title, abstract, or keywords: "*business groups*", "*chaebols*", "*keiretsu*", "*business houses*", "*zaibatsu*", "*grupos economicos*", "*guanxiqiye*" and "*qiye jituan*" on our list of journals reported in Table 1. This exercise yielded a sample of 183 papers.
Screening process	The authors separately read the titles, abstracts, hypotheses and methods sections of the 183 papers to drop articles that were: theory papers (23), and review, commentary or descriptive papers (20). This gave us 140 BG papers. Finally, from this list we identified 98 papers that dealt specifically with family-controlled BGs following a process reported in the main manuscript.

Table A3
Summary of Key Links in Empirical Research on Family Business Groups (FBGs)

Panel A.1. Link 1-4: Effects of FBG affiliation on financial performance

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2000	Khanna & Palepu	1-4	Firm performance	Group affiliation	-	Economics-Institutional Voids	FBG affiliation has a positive effect on firm performance.	Positive	1988-1996, Chile, listed firms of large groups
2001	Khanna & Rivkin	1-4	Firm performance	Group affiliation	-	Economics-Institutional Voids	FBG effects are tested in 14 EEs. Evidence that affiliation affects the broad patterns of economic performance is found in 12 of the markets examined.	Mixed	1990-1997, Cross - country (EEs)
2002	Bertrand, Mehta & Mullainathan	1-4	Firm profits	Group affiliation	-	Economics-PPA	FBG firms engage in tunneling behaviour, primarily via non-operating components of profit.	Negative	1989-1999, India, listed & unlisted firms
2004	Baek, Kang & Park	1-4	Firm value	Group affiliation	-	Economics-PPA	During financial crisis, affiliated firms experience larger drop in the value of their equity as compared to unaffiliated firms.	Negative	1997-1998, Korea, listed firms
2015	Almeida, Kim & Kim	1-4	Intra-group capital investment	Group affiliation	-	Economics-internal capital markets	Internal capital markets help affiliated firms to mitigate the negative effects of financial crisis on investment and performance.	Positive	1990-2000, Korea
2020	Cainelli, Giannini & Iacobucci	1-4	Firm access to finance	Group affiliation	-	Economics-Institutional Voids	FBG affiliation has a positive effect on firm's access to bank financing.	Positive	2010-2012, Italy, small firms
2020	Santioni, Schiantarelli & Strahan	1-4	Firm survival	Group affiliation	-	Economics-internal capital markets	FBG affiliation increases the likelihood of firm survival during market crises.	Positive	2004-2014, Italy

Panel A.2. Links 1-4(5) and 5-4(1)[c]: Interaction effects of FBG affiliation with environmental factors

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2000	Khanna & Palepu	1-4 (5)	Firm performance	Group affiliation	Market reforms	Economics-Institutional Voids	Non-diversification benefits of affiliation decline as markets develop.	Negative if markets develop	1988-1996, Chile, listed firms of large groups

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2005	Khanna & Yafeh	1-4 (5)	Firm profitability	Group affiliation	Institutional differences	Economics-Internal Capital Markets	Risk sharing within groups happens in Japan, Korea and Thailand, but there is little evidence of it in other countries.	Mixed	1977-1997, Cross-country (EEs)
2010	Kim, Kim & Hoskisson	1-4 (5)	Firm performance	Firm international diversification	Institutional transition	Economics-Institutional Voids	FBG affiliation negatively moderates the inverse relationship between international diversification and firm value during institutional frictions, but positively during institutional convergence.	Positive during later stages of institutional change	1993-2003, Korea, listed firms
2011	Masulis, Pham & Zein	1-4 (5)	Group performance	Group affiliation	Country capital markets	Economics-Internal Capital Markets	At the country level, FBGs structured as pyramids, are more prevalent in markets with limited availability of capital.	Positively moderated	2003-2006, Cross-country (Mixed), listed firms
2015	Chittoor, Kale & Puranam	1-4 (5)	Firm performance	Group affiliation	Capital market development	Economics-Institutional Voids	As capital markets develop, FBG affiliation benefits are stronger for those with greater capital market participation.	Positively moderated	1994-2009, India, listed & unlisted firms
2015	Minetti & Yun	1-4 (5)	Firm loan contracts	Group size	Market reforms	Economics-PPA	FBG firms receive loan contracts that reflect a lower riskiness than standalone firms; but market reforms reduce this advantage.	Contingent on market reforms	1992-2003, Korea
2019	Castaldi et al.	1-4 (5)	Firm performance	Group affiliation	Host country-market institutions	Economics-Institutional Voids	FBG affiliation enhances foreign subsidiary performance when host-market institutions are weak.	Positively moderated	2003-2012, India
2000	Guillén	5-4 (1)	Group market share	Country's foreign trade	Group affiliation	Political Science, Economics-RBV	Across nine EEs, market share of FBGs is found to be associated with asymmetries in foreign trade and investment.	Positive if foreign trade asymmetry	1975 & 1995, Cross-country (EEs)
2005	Chacar & Vissa	5-4 (1)	Firm poor performance persistence	Emerging economy context	Group affiliation	Economics-Institutional Economics, TCE	Affiliated firms in EEs have a greater persistence of poor performance than firms that are unaffiliated.	Negatively moderated	1989–1999, India & USA

Panel A.3. Link 1-4(2): Interaction effects of FBG affiliation and FBG heterogeneity

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2000	Chang & Hong	1-4 (2)	Firm profitability	Firm resources	Resources shared within the group	Economics-RBV	FBG affiliation benefits are determined by the level of tangible and intangible resources shared within the group.	Positively moderated	1985-1996, Korea, listed & unlisted firms
2000	Khanna & Palepu	1-4 (2)	Firm performance	Group affiliation	Group diversification	Economics-Institutional Voids	Benefits of affiliation depend on level of diversification in the group.	Positive after a diversification threshold	1993, India, listed firms
2002	Chang & Hong	1-4 (2)	Firm performance	Group affiliation	-	Economics-Institutional Voids	The positive effect of affiliation on firm performance tends to be smaller in large FBGs and decreases over time.	Negative for larger groups	1985-1996, Korea, listed & unlisted firms
2004	Chu	1-4 (2)	Firm performance	Group affiliation	Group size	Economics-Institutional Voids	Affiliated firms of bigger groups show improved stock market performance, but poor accounting performance when affiliated with small and medium groups.	Positive for bigger groups	1997-1999, Taiwan, listed firms
2019	Castaldi et al.	1-4 (2)	Firm performance	Group affiliation	Parent firm industry	Economics-Institutional Voids	FBG affiliation enhances foreign subsidiary performance when the parent firm is in manufacturing industry.	Positively moderated	2003-2012, India

Panel B. Link 2-4 & 2-4(5): Effects of FBG Heterogeneity on financial performance

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2000	Khanna & Palepu	2-4	Firm performance	Group diversification	-	Economics-Institutional Voids	Unrelated diversification in FBGs has a curvilinear relationship with affiliated firms' performance.	Positive after a diversification threshold	1988-1996, Chile, listed firms of large groups
2008	Bae, Cheon & Kang	2-4	Firm value	Earning announcement of other affiliate firm	-	Economics-PPA	Announcement of increased (decreased) earnings by a *chaebol*-affiliated firm has a positive (negative) effect on the market value of other non-announcing affiliates.	Mixed	1993-2001, Korea, listed firms
2008	Bertrand et al.	2-4	Firm performance	Group family structure	-	Economics-Family economics	Structure of the controlling family in the FBG determines value of affiliated firms.	Negative when sons are involved and founder is dead	1996, Thailand, listed & unlisted firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2011	Masulis, Pham & Zein	2-4	Firm investment intensity	Group governance	-	Economics-Internal Capital Markets	Financing advantages are greater for affiliated firms held in pyramidal rather than in horizontal structures. But firm performance declines with dual-class shares and cross shareholdings.	Positive	2003-2006, Cross-country (Mixed), listed firms
2014	Buchuk et al.	2-4	Firm performance	Intra-group loans	-	Economics-Internal Capital Markets	Affiliated firms that borrow internally have higher investment, leverage, and ROE than other firms.	Positive	1990-2009, Chile, listed & unlisted firms
2016	Kim	2-4	Firm performance	Group financial leverage	-	Economics-Ownership	Group's financial leverage can lead affiliated firms to lose market share to industry rivals.	Negative with group's financial leverage	1999-2006, Korea, listed & unlisted firms
2016	Yang & Schwarz	2-4	Group performance	Group level excess control	-	Economics-PPA	Group level control exhibits an inverted U-shaped relationship with group performance.	Negative after a threshold	2006-2010, Taiwan, listed firms
2017	Mahmood, Zhu & Zaheer	2-4	Firm performance	Intra-group equity ties	-	Sociology-Social Network Theory	Centralization of intra-group equity ties is positively related to the performance of FBG affiliates.	Positive	2003-2013, Taiwan, listed & unlisted firms
2018	Joe & Oh	2-4	Group spillover effects	Firm credit rating change	-	Economics-Internal Capital Markets	Intra-group negative spillovers resulting from market reactions are more dominant than positive spillovers.	Negative	2001-2013, Korea, listed firms
2019	Beaver et al.	2-4	Firm financial default	Group financial information	-	Economics-Information Economics	Intra-group financial information predicts affiliated firm's financial default.	Positive	2004-2012, Cross-country (Mixed)
2005	Luo & Chung	2-4 (5)	Group performance	Intra-group family ties	Institutional transition	Sociology-Institutional Theory	During market-oriented transition, family ties between top leaders of FBG firms have an inverted U-shaped relationship with group performance.	Positive upto a threshold	1973-1996, Taiwan, listed & unlisted firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2017	Mahmood, Zhu & Zaheer	2-4 (5)	Firm performance	Intra-group equity ties	Environmental turbulence	Sociology-Social Network Theory	Benefits of centralized intra-group equity ties weaken when the environment becomes turbulent.	Negative with environmental turbulence	2003-2013, Taiwan, listed & unlisted firms
2019	Beaver et al.	2-4 (5)	Firm financial default	Group financial information	Country financial reporting standards	Economics-Information Economics	Intra-group financial information predicts financial default, moderated by parent country financial reporting standards.	Positively moderated	2004-2012, Cross-country (Mixed)

Panel C.1. Link 1-3 & 1-3(2): Effects of FBG affiliation on strategic outcomes

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2003	Guillén	1-3	Firm joint venture (JV)	Firm previous JV experience	-	Sociology-Learning	Firms in the same FBG tend to imitate choices of foreign JVs and wholly owned operations.	Positive	1987-1995, Korea, listed firms
2006	Iacobucci & Rosa	1-3	Firm growth	Group affiliation	-	Sociology-Managerial/Entrepreneurial	Affiliated firms are associated with growth aspirations of entrepreneurs and diversification activities.	Positive	1999, Italy, medium sized firms
2010	Vissa, Greve & Chen	1-3	Firm problemistic search	Group affiliation	-	Sociology-Behavioural Theory	Affiliated firms are more externally oriented in setting aspiration levels and are more likely to respond to low performance in the market domain.	Positive	1988-2004, India, listed firms
2013	Bena & Ortiz-Molina	1-3	Firm characteristics at founding	Group ownership structure	-	Economics-PPA	Pyramidal ownership structure of FBGs provides financing advantages in setting up new firms.	Positive	2001-2006, Cross-country (Europe)
2015	Manikandan & Ramachandran	1-3	Firm growth opportunities	Group affiliation	-	Economics-Institutional Voids	Affiliated firms have greater growth opportunities than non-group firms.	Positive	1994-2010, India, listed firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2018	Ray & Ray Chaudhuri	1-3	Firm environmental and social sustainability strategy	Group affiliation	-	Economic-Institutional Voids, RBV	FBG affiliation is positively related to firms' environmental and social sustainability strategy.	Positive	2014-2015, India, listed firms
2020	Kumar et al.	1-3	Firm CBA	Group affiliation	-	Economics-RBV	Unaffiliated firms are more likely to pursue faster internationalization by conducting their first cross-border acquisition (CBA).	Negative	2000-2017, India, listed firms
2006	Chang, Chung & Mahmood	1-3 (2)	Firm innovation	Group affiliation	Group diversification	Economics-Institutional Voids	Intra-group resource sharing has a positive impact on affiliate firm innovation, but groups' diversification has a negative effect.	Negative for more diversified groups	1991-1999, Taiwan, & Korea
2014	Guzzini & Iacobucci	1-3 (2)	Firm R&D propensity	Group affiliation	Group ownership	Economics-Internal Capital Markets	R&D intensity in affiliated firms depends on their ownership within the group.	Positive	2001-2003, Italy, SMEs
2015	Gubbi, Aulakh & Ray	1-3 (2)	Firm international search	Group affiliation	Group age	Sociology-Institutional Theory	Older groups have a negative impact on affiliated firms' international search behavior during institutional transitions.	Negative for older groups	1992-2007, India
2018	Bonacchi, Cipollini & Zarowin	1-3 (2)	Subsidiary earnings management	Group affiliation	Family ownership in parent firm	Economic-PPA	Listed parent firms of FBGs are more likely to use earnings management through non-listed subsidiaries as compared to non-family BGs. Board proximity between parent and subsidiary positively moderates this relationship.	Positive	2003-2014, Italy, listed parents; non-listed subsidiaries
2018	Choi et al.	1-3 (2)	Firm CSR spend	Group affiliation	Ownership disparity in group firms	Economic-Institutional voids, RBV	CSR initiatives are positively associated with FBG affiliation, but negatively moderated by ownership disparity in affiliated firms.	Contingent on firm ownership and control	2002-2015, Korea, listed

Panel C.2. Link 2-3: Effects of FBG heterogeneity on strategic outcomes

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2004	Mahmood & Mitchell	2-3	Industry innovation	Group market share	-	Economics-Institutional Voids	Market share of groups in an industry has an inverted-U impact on innovation.	Positive up to an innovation threshold	1981-1995, Taiwan & Korea, listed & unlisted firms
2008	Bertrand et al.	2-3	Firm ownership & control	Firm ownership family structure	-	Economics-Family Economics	There is a positive association between family size and family involvement in the ownership and control of the family businesses. The founders' sons play a central role in ownership and board membership, especially if group founder is dead.	Positive when family size is bigger	1996, Thailand, listed & unlisted firms
2008	Chung & Luo	2-3	Group industry entry & exit	Group family ownership and control	-	Sociology-Institutional Theory	Family-dominated groups are less likely to divest or acquire unrelated businesses than groups less dominated by families.	Negative	1986-1998, Taiwan
2011	Mahmood, Zhu & Zajac	2-3	Firm R&D capability	Intra-group firm centrality	-	Sociology-Social Network Theory	Centrality of FBG affiliate in the intra-group equity and director networks positively moderates the positive relationship between its centrality in the buyer-supplier network and its R&D capability.	Positive	1981-1988, Taiwan, listed firms
2011	Mithas, Ramasubbu & Sambamurthy	2-3	Organizational performance	Intra-group information management capabilities	-	-	Information management capabilities in FBG firms favorably influence organizational performance.	Positive	1999-2003, India, listed firms
2012	Kumar, Gaur & Pattnaik	2-3	Group internationalization	Group product diversification	-	Economics-Learning	High product diversification has an adverse effect on the international expansion of emerging market FBGs.	Negative	2001-2008, India, listed firms
2013	Boutin et al.	2-3	Firm market entry	Group cash holdings	-	Economics-Internal Capital Markets	Internal capital markets within FBGs affect the product market behavior of affiliated firms by mitigating financial constraints.	Positive	1995-2004, France, listed & unlisted firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2013	Mahmood, Chung & Mitchell	2-3	Group innovation	Group density of buyer-supplier ties	-	Sociology-Social Network Theory	Density of buyer-supplier ties within an FBG has a positive impact on group's innovation.	Positive	1981-1998, Taiwan
2014	Zhu & Chung	2-3	Group market entry	Group political connections	-	Political Science, Sociology - Social Network Theory	FBGs' ties to the ruling political party facilitate the groups' entries into unrelated industries under a united government. However, ties to the opposition parties deter such moves.	Positive if politically connected to ruling govt.	1998-2006, Taiwan, listed & unlisted firms
2019	Gu, Lu & Chung	2-3	Group industry entry	SEW	-	Sociology-SEW	Group industry entry is negatively influenced by the exercise of family influence but positively by family succession. Effects of SEW are contingent on controlling owners' generation.	Contingent on family characteristics	1980-2000, Taiwan
2017	Han, Shipilov & Greve	2-3	Group market entry	Inter-group marriage ties	-	Sociology-Status	Inter-group marriage ties result in inter-personal deference and affect groups' market entries or exits.	Positive	1987-2011, largest Korean chaebols
2018	Santangelo & Stucchi	2-3	Group CBA deals	Group geographical dispersion	-	Economics-Evolutionary Theory	Geographical dispersion within the group increases CBA deals.	Positive	2000-2010, India
2020	Masulis, Pham & Zein	2-3	Group IPOs	Group's family control	-	Economics-PPA	Family's control motivations and group's internal capital markets drive their IPOs.	Positive	2003-2006, Cross-country (Mixed)
2018	Su & Tan	2-3	Group usage of tax haven	Group scope and internationalization	Group's pro-social orientation	Economic-stakeholder theory	FBG's product and international scope are positively related to the use of tax havens. This is negatively moderated by group's pro-social orientation.	Positive for less pro-social groups	2008-2012, Taiwan, listed & unlisted firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2018	Terlaak, Kim & Roh	2-3	Firm environmental performance disclosure	Firm family ownership	-	Sociological-SEW	There is a U-shaped relationship between family ownership and propensity of the affiliated firm to disclose environmental performance information.	Contingent on family ownership	2008-2013, Korea
2018	Oh et al.	2-3	Firm CSR	Intra-group transactions	-	Sociological-Behavioral theory	High level of intragroup transactions decreases the level of corporate philanthropy in FBG affiliated firms.	Negative	2011-2015, Korea, listed firms

Panel C.3. Links 1-3(5), 5-3(1) and 2-3(5): Interaction effects of environmental factors and FBG effects on strategic outcomes

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2006	Chang, Chung & Mahmood	1-3 (5)	Firm innovation	Group affiliation	Institutional differences	Economics-Institutional Voids	FBG affiliated firms are more innovative in South Korea, but not in Taiwan, and in the early 1990s, but not in the late 1990s.	Mixed	1991-1999, Taiwan, & Korea, listed & unlisted firms
2015	Gubbi, Aulakh & Ray	1-3 (5)	Firm international search	Group affiliation	Industry institutional change	Sociology-Institutional Theory	FBG affiliation negatively impacts firms' search behaviour when institutional changes are specific to the affiliates' industry.	Negative if industry change is firm-specific	1992-2007, India
2015	Manikandan & Ramachandran	1-3 (5)	Firm growth opportunities	Group affiliation	Market reforms	Economics-Institutional Voids	Pro-market reforms positively moderate the positive effect of FBG affiliation on firm growth opportunities.	Positive	1994-2010, India, listed firms
2017	Kim & Song	1-3 (5)	Firm M&A deal abandonment	Country capital market development	Capital market development	Economics-Institutional Voids	FBG affiliation has a positive effect on lowering the likelihood of abandoning announced M&A deals, but this effect is reduced when capital markets are developed.	Negative when external capital markets are developed	1988-2008, Cross-country (EEs)
2018	Griffin & Youm, 2018	1-3 (5)	Firm CSR disclosure	Group affiliation	Post-financial crisis	Sociological-Institutional theory	After the global financial crisis, FBG firms are more likely to disclose prosocial behaviors than stand-alone firms.	Positive	2006-2012, Korea, 60% listed

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2021	Chung, Dahms & Kao	1-3 (5)	Subsidiary family manager	Subsidiary institutional distance	Institutional differences	Multi-disciplinary-RBV, Institutional Theory	FBGs tend to assign family managers in foreign subsidiaries when they have stronger operations outside the home region, and in subsidiaries with strong institutional differences between home and host country.	Not applicable	1999-2003, Taiwan
2004	Hoskisson et al.	5-3 (1)	Firm asset restructuring	Country environmental change	Group affiliation	Economics-Institutional Economics, TCE	Effects of country development and restructuring on increased asset restructuring is stronger for FBG firms but effects of increased competition and deregulation are stronger for independent firms.	Mixed	1996, Cross-country (Latin America & Europe)
2015	Dau, Ayyagari & Spencer	5-3 (1)	Firm expansion	MNE entry	Group affiliation	Economics-Institutional Voids	Affiliated firms are more responsive to threats from MNE investment announcements than are stand-alone firms.	Positively moderated	1995-2010, India, listed & unlisted firms
2018	Min	5-3 (1)	Firm leverage compliance	Firm outside directors	Group affiliation	Economic-PPA	FBG affiliation positively moderates the relationship between outside directors and compliance of leverage regulation.	Positively moderated	1998-2014, Korea, listed firms
2018	Min	5-3 (1)	Firm growth policy	Firm outside directors	Group affiliation	Economic-PPA	FBG affiliation negatively moderates the relationship between outside directors and firm's growth oriented policy.	Negatively moderated	1998-2014, Korea, listed firms
2018	Ray & Ray Chaudhuri	5-3 (1)	Firm environmental and social sustainability strategy	Firm resources	Group affiliation	Economic-Institutional voids, RBV	The relationship between firm fungible resources and its sustainability strategy is more strongly positive for non-affiliated firms than for FBG firms.	Negatively moderated	2014-2015, India, listed firms
2020	Bu & Cuervo-Cazurra	5-3 (1)	Firm innovation	Firm informal founding	Group affiliation	Economics-PPA	FBG ownership weakens the negative impact of informal creation of a new venture on its subsequent innovation.	Positively moderated	2010-2016, Cross-country (EEs), unlisted firms
2021	Gopal, Manikandan & Ramachandran	5-3 (1)	Firm diversification	Country pro-market reforms	Group affiliation	Economic-Institutional voids	The negative effect of pro-market reforms on unrelated diversification is stronger for FBG firms than for standalone firms.	Negatively moderated	1993-2007, India

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2000	Manikutty	2-3 (5)	Group diversification	Group resources, family ownership	Market reforms	Economic-RBV	FBG's tangible resource requirements are positively associated with the extent of its divestment of unrelated businesses after market reforms.	Positively moderated	1997, India
2004	Mahmood & Mitchell	2-3 (5)	Industry innovation	Group market share	Institutional differences	Economics-Institutional Voids	Market share of FBGs in an industry has an inverted-U impact on industry innovation. Institutional differences lead to different innovation thresholds.	Positive up to an innovation threshold	1981-1995, Taiwan & Korea, listed & unlisted firms
2008	Chung & Luo	2-3 (5)	Group family presence	Group key leader	Institutional transition	Sociology-Institutional Theory	In transition economies, second generation key leader of the FBG has a negative effect on family presence within the group, positively moderated by institutional change.	Not applicable	1977-1998, Taiwan
2009	Mahmood & Zheng, 2009	2-3 (5)	Group innovation	Group internationalization	institutional differences	Sociology-Social Network Theory	The positive effect of dense intra-FBG ties on innovation benefits of IJV gets weakened as external institutions become more developed.	Negative if institutions develop	1981-1998, Taiwan
2013	Lamin	2-3 (5)	Firm international sales	Group internationalization	Industry regulation and competition	Economics-Information Economics	Affiliation benefits firms in deregulated, globally competitive industries by enabling higher international sales.	Positively moderated	1994-2002, India, listed & unlisted firms
2013	Mahmood, Chung & Mitchell	2-3 (5)	Group innovation	Group density of buyer-supplier ties	Market environment	Sociology-Social Network Theory	The effect of buyer-supplier tie density within an FBG on innovation is negatively moderated by market environment.	Negative if markets develop	1981-1998, Taiwan
2017	Mahmood, Chung & Mitchell	2-3 (5)	Group diversification	Group political connections	Political-economic system	Political Science	Political connections facilitate group diversification. Benefits are greater for formal ties with dominant political party in a closed political-economic system, or for informal ties to a wider range of political actors, in an open system.	Positive if politically connected	1986-1998, Taiwan, listed & unlisted firms

Panel D Links 3-4(1) & 3-4(2)[c]: Influence of strategic factors on financial performance

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2002	Bae, Kang & Kim	3-4 (1)	Firm value	Group acquisition	Group affiliation	Economics-PPA	FBG firms engage in tunneling behaviour.	Mixed	1981-1997, Korea, listed firms
2006	Baek, Kang & Lee	3-4 (1)	Group price of private equity offerings	Group equity offerings	Group affiliation	Economics-PPA	FBG firms engage in tunneling behaviour.	Negatively moderated	1989-2000, Korea, listed firms
2002	Carney & Gedajlovic	3-4 (1)	Firm performance	Firm inside ownership	-	Economic-PPA	In FBG affiliated firms, there is a positive relationship between insider ownership and dividend payouts/short-term profitability, but it is negative for investments in capital expenditures.	Mixed	1993, Hong Kong, listed firms
2006	Douma, George & Kabir	3-4 (1)	Firm performance	Firm domestic ownership	Group affiliation	Economics-RBV, PPA; Sociology-Institutional Theory	Belonging to an FBG negatively moderates the positive relationship between domestic corporate ownership and firm performance.	Negative	1999-2000, India, listed firms
2007	Chakrabarti, Singh & Mahmood	3-4 (1)	Firm performance	Firm diversification	Group affiliation	Economics-Institutional Voids	Affiliated firms' diversification negatively impacts performance in more developed institutional environments and improve performance only in the least developed environments.	Negative if institutions develop	1988-2003, Cross-country (Asia), listed firms
2007	Choi, Park & Yoo	3-4 (1)	Firm performance	Firm board independence	Group affiliation	Economics-PPA	FBG affiliation has no effect on the positive relationship between independent directors and firm performance.	No effect	1999-2002, Korea, listed firms
2014	Gopalan, Nanda & Seru	3-4 (1)	Firm dividend payout	Firm investments	Group affiliation	Economics-Internal capital markets	Dividends by a group firm are positively related with equity-financed investments by other member firms.	Positively moderated	1996-2005, Cross-country (Mixed),
2015	Gaur & Delios	3-4 (1)	Firm performance	Firm internationalization	Group affiliation	Economics-PPA, Institutional Economics	FBG affiliation positively moderates the adverse relationship between international diversification and firm performance.	Positive	1990-2005, India, listed firms
2016	Gubbi & Elango	3-4 (1)	Firm performance	Firm's CBA	Group affiliation	Economics-RBV	FBG affiliation positively moderates the advantages of firm CBAs for performance.	Positive	2000-2010, India, listed firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2017	Song & Han	3-4 (1)	Firm value	Corporate crime	Group affiliation	Economic-Internal capital markets	FBG affiliation reduces the negative relationship between corporate crime and stock market valuation.	Positive	2001-2010, Korea, listed firms
2019	Gaur et al.	3-4 (1)	Firm survival	Firm internalization	Group affiliation	Economics-Institutional Voids	Affiliated subsidiaries have a positive relationship between product and labor market internalization and firm survival.	Positive	1995-2013, Korea, listed firms
2020	Elia, Munjal & Scalera	3-4 (1)	Firm performance	Firm foreign inward technological licenses	Group affiliation	Economics-RBV	FBG affiliation negatively moderates the benefits of firm foreign inward technological licenses for firm performance.	Negative	2001-2013, India, listed firms
2007	Gopalan, Nanda & Seru	3-4 (2)	Intra-group loans	Firm earnings shock	Intra-group bankruptcy	Economics-Internal Capital Markets	FBGs use intra-group loans as a means of transferring cash across group firms and to support financially weaker firms.	Negatively moderated	1989-2001, India, listed & unlisted firms
2019	Gaur et al.	3-4 (2)	Firm survival	Firm product and labor market internalization	Group diversification	Economics-Institutional Voids	The positive relationship between internalization and firm survival in affiliated subsidiaries is dependent on the group size and diversification	Positive for more diversified and bigger groups	1995-2013, Korea, listed firms

Panel E. Links[c] 1-3(6), 1-4(6), 2-4(6), 5-3(6), 6-3(1), 6-4(1) & 6-4(2): Interaction effects of group level and firm specific factors in FBG affiliated firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2014	Guzzini & Iacobucci	1-3 (6)	Firm R&D propensity	Group affiliation	Firm size	Economics-Internal Capital Markets	R&D intensity in FBG affiliated firms depends on their size	Positive for bigger firms	2001-2003, Italy, SMEs
2015	Gubbi, Aulakh & Ray	1-3 (6)	Firm international search intensity	Group affiliation	Firm age and industry	Sociology-Institutional Theory	Affiliated firms that are more distant in terms of age and industry than the group, have a negative impact on international search behavior during institutional transitions.	Negatively moderated	1992-2007, India

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2019	Kim, Pae & Yoo	1-3 (6)	Firm CSR spend	Group affiliation	Firm listing	Economic-PPA	FBG affiliation positively moderates the relationship between firm's listing status and corporate philanthropy.	Positively moderated	2000-2014, Korea, listed & unlisted
2020	Kumar et al.	1-3 (6)	Firm CBA deals	Group affiliation	Firm age	Economics-RBV	Among affiliated firms, younger ones are relatively faster in conducting their first CBA.	Positive if firms are younger	2000-2017, India, listed firms
2015	Chittoor, Kale & Puranam	1-4 (6)	Firm performance	Group affiliation	Firm listing	Economics-Institutional Voids	FBG affiliation and firm's capital market participation play a complementary role in determining firm performance.	Positive if firms are listed	1994-2009, India, listed & unlisted firms
2017	Mahmood, Zhu & Zaheer	2-4 (6)	Firm performance	Intra-group equity ties	Firm listing	Sociology-Social Network Theory	Listed affiliates obtain fewer benefits from centralized intra-group equity ties than unlisted affiliates.	Negative if firms are listed	2003-2013, Taiwan, listed & unlisted firms
2015	Dau, Ayyagari & Spencer	5-3 (6)	Firm expansion	MNE entry	Professional management	Economics-Institutional Voids	Professionally managed affiliates are more likely to respond to MNE threats. Intra-group firm prominence increases this effect.	Positively moderated	1995-2010, India, listed & unlisted firms
2015	Chittoor, Aulakh & Ray	6-3 (1)	Firm international acquisition	Firm CEO experience	Group affiliation	Economics-Learning	FBG affiliation negatively moderates the positive relationship between CEOs' international experience and firm internationalization.	Negative	2002-2011, India, listed firms
2019	Chittoor, Aulakh & Ray	6-3 (1)	Firm internationalization	Firm owner CEOs	Group affiliation	Economics-PPA, Sociology-Behavioural Theory	FBG affiliation negatively moderates the positive relationship between owner CEOs and firm internationalization.	Negatively moderated	2002-2011, India, listed firms
2013	Chung & Luo	6-4 (1)	Firm performance	Firm outside successor	Group affiliation	Sociology-Institutional Theory	Performance premium of outside successors is reduced in affiliated firms.	Negative	1986-1998, Taiwan
2015	Chen, Chittoor & Vissa	6-4 (1)	Firm EPS forecast	Firm CEO-analyst tie	Group affiliation	Sociology-Institutional Theory	Presence of CEO-analyst particularistic ties has a positive effect on earnings forecast for FBG affiliated firms.	Positively moderated	2001-2010, India, listed firms

Year	Study	Link	DVs	IVs	Moderators	Theoretical lens[a]	Key findings	Directionality[b]	Sample details
2016	Yang & Schwarz	6-4 (2)	Firm performance	Firm level excess control	Group level excess control	Economics-PPA	The detrimental effect of firm-level excess control on performance is more when group level excess control in the firm is high.	Negatively moderated	2006-2010, Taiwan, listed firms
2016	Yang & Schwarz	6-4 (2)	Firm performance	Firm level excess control	Group governance	Economics-PPA	The detrimental effect of firm-level excess control on performance is less pronounced when groups are governed by family members or by professional managers.	Positive when governed by family members or professional managers	2006-2010, Taiwan, listed firms

Notes:

a: To capture the theoretical lens, we categorized each paper under at least one social science discipline - Economics, Sociology or Political Science. Some papers fell under more than one discipline. In addition, because papers situated in the disciplines of Economics and Sociology drew on multiple different theoretical frameworks, we further categorized each paper affiliated to these two disciplines based on the specific theoretical framework as follows:

Economics: Evolutionary Theory, Family Economics, Information Economics, Institutional Economics, Institutional Voids, Internal Capital Markets, Learning (Economics), Ownership, Principal-Principal Agency Theory (PPA) and Resource-Based View (RBV).

Sociology: Behavioural Theory of the Firm, Institutional Theory, Learning (Sociology), Managerial/Entrepreneurial, Social Network Theory, Social Status and Socio-Emotional Wealth (SEW)

b: Directionality indicates the direction of FBG affiliation effect on the focal DV, either as a main effect or as a moderated effect.

c: Link has less than three papers and hence, not depicted in Figure 1.

EE: Emerging Economy

CBA: Cross-border Acquisition

ROE: Return on Equity

Table A4
Count of Papers Illustrating Time Trends in Dependent and Independent Variables Examined in Prior Research

	Financial Performance Outcomes				Strategic Performance Outcomes						Row Totals		Grand Totals
	Accounting measures[a]		Market measures[b]		Market outcomes[c]		Innovation outcomes[d]		ESG outcomes[e]				
Independent Variables	Till 2010	2011 - 2021	Till 2010	2011 - 2021	Till 2010	2011 - 2021	Till 2010	2011 - 2021	Till 2010	2011 - 2021	Till 2010	2011 - 2021	
FBG dummy	5	5	4	5	1	4	2	3	1	5	13	22	35
FBG heterogeneity (within FBGs) e.g., equity stakes, board inter-locks, centrality within an FBG, pyramidal Vs direct holding etc.	4	4	3	1	1	2	1	4	1	3	10	14	24
FBG heterogeneity (across FBGs) e.g., FBG size, age, diversification etc.	5	4	1	4	2	8	2	4	2	5	12	25	37
Column Totals	14	13	8	10	4	14	5	11	4	19	35	61	
Grand Totals	27		18		18		16		23				96[g]

Notes:
a: These include variables such as return on assets (ROA), return on sales (ROS), sales, profits etc.
b: These include variables such as Tobin's Q, abnormal returns, company value, analyst earnings forecasts etc.
c: These include variables such as internationalization, market entry / exit, competitive actions, acquisition / divestiture, JV formation or exit etc.
d: These include variables such as firms' patenting behaviour, R&D intensity, technology licencing, new business incubation etc.
e: These include outcomes such as Board / TMT composition, CEO pay, Board interlocks, disclosure practices etc.
f: These include Environmental, Social, and Governance outcomes.
g: Total number of papers does not add up to 98 since there was one paper that examined the antecedents of FBG affiliation and one paper that studied a mixed outcome measure.

Table A5
Costs and Benefits of Affiliation to BGs and Family Firms

Costs and benefits of BG affiliation theorized in the BG literature*	Additional costs and benefits from Family Business literature
Costs	
Principal to principal agency problems: Controlling shareholders taking advantage of minority shareholders through expropriation of resources – tunneling (e.g. Bertrand, Mehta, & Mullainathan, 2002; Siegel & Choudhury, 2012)	Managerial entrenchment and nepotism are often prevalent in family owned firms leading to problems of under-qualified family members in management, double standards in the evaluation of family vs. non-family managers and lower accountability (e.g. Bertrand, Mehta, & Mullainathan, 2002; Bertrand & Schoar, 2006; Chen, Chittoor, & Vissa, 2021)
Firms may be obliged to get inputs from fellow BG firms even if not efficient, due to group considerations (e.g. Chang & Hong, 2000; Chacar & Vissa, 2005)	Family interest takes priority over business interest leading to lower risk taking due to concerns of preserving family wealth and creating emotional barriers to exit unprofitable businesses (e.g. Miller & Le Breton-Miller, 2006; Chrisman, 2019)
Cross-subsidization: Poorly performing firms are propped up through subsidization by better performing firms (e.g. Khanna & Rivkin, 2001; Chacar & Vissa, 2005)	Within-family conflict: leads to splits and amalgamations that may be detrimental to business interests (e.g. Harris, Martinez, & Ward, 1994)
Due to security offered by the group, managers have weaker incentives to perform (e.g. Khanna & Rivkin, 2001)	Financial leverage: Evidence indicates that family firms have a higher debt equity ratio compared to non-family firms. This can be attributed to a hesitancy in raising equity capital and dilute family ownership stake (e.g. Bertrand & Schoar, 2006)
Benefits	
Access to Internal capital markets: BG firms can access internal capital markets and fund projects that may otherwise go unfunded as transaction costs of accessing external capital are higher (e.g. Chang & Hong, 2000; Khanna & Rivkin, 2001)	Stewardship behaviour and long-term orientation: Family owners are found to exhibit stewardship behaviour and are motivated by non-financial considerations such as socio-emotional wealth (e.g. Gomez-Mejia, Luis, Cruz, Berrone, & De Castro, 2011)
Access to coordinated political lobbying: BGs could facilitate political power that would be valuable as government plays a significant role in business (e.g. Ghemawat & Khanna, 1998)	Leadership: Family owner-managers are often found to provide bold, stable and inspiring leadership that leads to faster strategic decision making (e.g. Chittoor, Aulakh, & Ray, 2019)
Access to internal product and technology markets: There are fewer participants due to weaker contract enforcement in developing economies. By investing in brand and reputation, BGs can mitigate the fear of opportunistic behavior and attract partners. BGs can also facilitate trading internally (e.g. Khanna & Palepu, 2000; Khanna & Rivkin, 2001)	Family businesses are found to enjoy higher loyalty and trust with customers, employees and partners that act as a valuable resource and also leads to lower transaction costs (e.g. Bertrand & Schoar, 2006)
BG structure facilitates realization of synergies from unrelated diversification (e.g. Gopal, Manikandan, & Ramachandran, 2021)	Social capital and embeddedness in the community: As stakeholder orientation and sustainable development goals are gaining prominence around the world, evidence indicates that family firms exhibit higher corporate social responsibility (e.g. Cruz, Larraza-Kintana, Garces-Galdeano, & Berrone, 2014)

*Adapted from Chittoor, Kale and Puranam (2015)

Table A6
Count of Papers Based on Theoretical Mechanisms Explaining Variation in Dependent Variables

	Financial Performance		**Strategic Performance**			**Total**
Theoretical Framework for Explanation	Accounting measures	Market measures	Market outcomes	Innovation outcomes	ESG outcomes	
Economic Theories						
- Principal-principal agency	7	7	1	3	5	23
- Institutional voids	8	3	2	4	0	17
- Resource-based view	4	1	2	1	4	12
- Others	7	5	2	2	6	22
Sociological Theories						
- Institutional theory	2	2	2	0	6	12
- Social network theory	1	0	1	3	0	5
- Others	0	0	3	3	4	10
Political Economy Theories	0	0	2	0	0	2
Total	29	18	15	16	25	103*

Notes:
*: Total number of papers adds up to more than 96 (see footnote g in Table A3) because there were some papers that were classified under multiple theoretical mechanisms

Table A7
Count of Papers Based on Independent Variables Employed Across Theoretical Mechanisms

Theoretical Framework for Explanation	FBG Dummy	FBG heterogeneity (within-FBGs)	FBG heterogeneity (across-FBGs)	**Total**
Economic Theories				
- Principal-principal agency	13	6	4	23
- Institutional voids	6	2	9	17
- Resource-based view	4	3	5	12
- Others	7	6	9	22
Sociological Theories				
- Institutional theory	6	1	5	12
- Social network theory	1	3	2	6
- Others	2	4	4	10
Political Economy Theories	0	0	2	2
Total	39	25	40	104*

Notes:
*: Total number of papers adds up to more than 103 (see footnote in Table A5) because it includes one paper that examined the antecedents of FBG affiliation, which was not included in Table A5.