

Peer Effects, Financial Decisions, and Industry Concentration: A Review

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Abstract

Purpose- This article reviews literature related to peer effects and different financial decisions. It further summarizes the theory and motives that drive peer effects. Also, the study highlights the influence of industry concentration on peer interaction in financial decision making. This content analysis of scantily available peer effect literature has been performed to highlight the significance of peer effects in financial decision making like investment, cash holding, leverage and many more. Most of the existing peer effects literature focuses on the U.S. However, peer effects also occur in other countries but empirical evidence is comparatively limited. But, managers may take into consideration their industry peers especially if their firms are operating in highly competitive environments

Design/Methodology- Content analysis approach is applied to review prevailing financial literature on peer interactions and financial decisions with a special focus on industry concentration in explaining the peer effects.

Practical Implications- As the prime focus of managerial decisions is to maximize the firm's value. Hence, information about peers would be helpful in making better decisions, especially in highly competitive environments. Also, this review of selected literature provides pathways for future research in investigating the motives of peer effects.

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Introduction

Recent empirical findings imply that managers are social agents that are exceptionally networked. Therefore, while making corporate decisions, besides being guided by innate beliefs, their social experiences also exhibit meaningful influence (Shue, 2013). A comprehensive corporate survey by Graham and Harvey (2001), indicates that for many financial decisions like capital structure and capital budgeting, publically available information about industry peers is an important determinant in risky corporate decisions. Similar views are being held by corporate decision-makers around the world (Brounen, Jong, & Koedijk, 2006; Colombage, 2007; Maquieira, Preve, & Sarria-Allende, 2012).

Peer effects could occur and impact managerial decisions because information and ideas travel through social networks. Theoretically, speaking variety of motives are discussed in the literature regarding this word-of-mouth effect or keep up with Joneses. These motives are discussed in detail later. Measuring peer effects despite its importance is subject to twin challenges namely selection and common shocks (Manski, 1993), however, its discussion is not the objective of this research.

Financial literature normally ignores the importance of peer firms and often time have controlled it through dummy variables. But, these industry dummies are not useful in explaining the influence of peer firms on firms' decisions. Towards this end, Leary and Roberts (2014) study have revived the importance of peer effects as a crucial input to financial decision making. They find that an increase in the average leverage of the peers' cause an increase in a firm's leverage level in the U.S.

This study discusses the recent financial literature on peer effects and financial decisions. Existing empirical evidence explore peer interaction on a variety of financial decisions like investment, dividend policy, equity issuance and leverage and many others. Moreover, literature also shows that peer effects in finance are studied across the globe and in both financial and non-financial corporations. Lastly, this study reviews limited industry concentration research particularly influential in explaining why and when interaction peer happens. These relationships are highlighted for researchers to build on prevailing peer effects research and expand it further.

Peer Effects – Theory and Motives

Peer effects refer to a state where a firm takes a specific action solely in response to its peers. However, it should not be confused with common or correlated effects. As in these correlated effects, firms behave alike due to the fact that they exhibit similar characteristics or due to a common reason or context (Manski, 1993; Grennan, 2017). In capital structure context, peer effects occur when one firm makes changes to its capital structure decisions and its industry peers adjust their capital structure policies accordingly. Consequently, the firm adapts to the changes made by peers (Leary & Roberts, 2014).

Peer effects literature uses a variety of terminologies for representing this phenomenon like herd behavior, mimicking, social interaction, and information cascade. Theoretically, peer effects fall under the domain of herd behavior model (Park, Yang, & Yang, 2017). In a seminal study, Banerjee (1992) defines herd behavior as doing what everyone else is doing even when one's private information suggests doing something different. Likewise, herd behavior identifies the motives that drive peer effects. Prominently, these include strategic intentions, learning behavior, behavioral preferences or reputational apprehension. Thus, all forms of peer effects or mimicking have some rational explanation.

According to the strategic intentions model, firms may use peer effects for two reasons. They do so either to conspire or banish a competitor from the group (Chevalier & Scharfstein, 1996; Rajan, 1994). In doing so, a specific peer group may conspire to remove a competitor from the industry by means of increasing debt

levels thus making it insolvent. Likewise, a manager may raise a firm's debt ratio, to increase the debt burden on the competitor firm and bring it on the verge of bankruptcy.

Another model that explains a slightly different motive for peer effects is the learning behavior model. This model emphasizes that managers use information as a tool for making rational decisions. Traditionally, managers could choose an optimal capital structure for their firms. But, being a rational decision maker, it would be preferable to consider the information contents of the peer firms' financial decision. Since, direct observation is both costly and time-consuming, following peers provide a feasible and rational alternate (Bikhchandani, Hirshleifer, & Welch, 1992).

In reputational apprehension model of peer effects, the manager makes rational but ineffective decisions. Therefore, under certain conditions, managers imitate the decisions of their peers due to apprehension for their reputation and overlook any pertinent information that they may have (Chevalier & Scharfstein, 1996). Like, when the market consists of many managers and labor market participants rationally adjust their view about the managerial styles i.e. smart and dumb managers. In such a situation, managers focus more on saving their reputation by following their peers ignoring the relevant information.

Behavioral preferences model advocates that peer effects are driven due to managerial irrational anticipations based on behavioral predispositions. For example, due to overconfidence, a manager may think that he could predict future events than he actually can. Thus, when peer firms increase their debt level, the manager would be convinced to increase their firm's debt level in response to others (Malmendier & Tate, 2005).

In contrast to the aforementioned motives regarding peer effects, it is important to distinguish them from traditional signaling theory of optimal capital structure. According to signaling theory, information about the issuance of new debt or equity provides clues about the firm's future prospects (Brigham & Houston, 2009). Thus, signaling theory suggests that managers make their capital structure decisions based on their private information. However, in peer effects managers utilize the information provided by peer firms actions or characteristics with regard to capital structure, while deciding their own leverage levels.

In accordance with these perspectives, Lieberman and Asaba (2006), broadly categorize them into information based and rivalry based theories. Furthermore, they argue that these two types of imitation magnify the outcomes although they may have different implications. Imitation, as backed by the information-based view, can increase the adoption speed of better processes and products. Yet, it may lead to huge failures at the time. Rivalry based mimicking, on the other hand, escalates competition but can also cause a collision. Thus, these theoretical views provide insight into "why and when" it is more likely that firms may imitate their industry peers.

Literature Review

Peer Effects in Finance

Peer effects in financial decisions are comparatively new but it is gaining popularity and growing because of the variety of motives that seemingly drive such effects. Leary and Roberts (2014), presented the evidence that the U.S. firms consider their peers' financial decisions especially capital structure levels while determining their firm's own leverage levels. Following this fundamental research regarding peer effects in finance, a stream of related research started evolving exploring the role of peers in various financial decisions.

Francis, Hasan, and Kostova (2016) conducted an international study, analyzing peer effects globally. They show that firms in both developed and developing countries, follow their industry peers when deciding their leverage level. Moreover, these effects are stronger in countries with weak protection laws for investors,

strong laws for creditor rights and more developed equity markets. Peer effects are also observed in the firm's debt maturity choices (Duong, Ngo, & McGowan, 2015). Another upcoming study by Fairhurst and Nam (2018), shows that the U.S. firms that have weak external corporate governance, and higher chances of being taken over are more inclined towards mimicking their peers' capital structure choices.

Among peer effects studies, it's not only non-financial firms that exhibit such effects but these are evident in banks. Lee, Lee, Zeng, and Hsu (2017), show that the peer banks debt ratio significantly influence a bank's leverage level. However, Shroff, Verdi, and Yost (2017) find that peer effects are not constant over time among U.S. firms. Interestingly, they find that peer effects are more influential when the firm's own information is limited.

Like, while analyzing 7156 dividend change events in the U.S. from 1975 till 2011, Grennan (2017), conclude that managers take into consideration peers dividend policies when deciding their own firms' dividend policies. Furthermore, she observes that if investors adjust their portfolios based on these dividend signals, they can earn 7.4 percent on their investment annually. Also, Adhikari and Agrawal (2018), find that among the U.S. public firms, both dividend and share repurchase decisions of a firm are influenced by the industry peers related decisions.

Another study by Shue (2013), explores the role of social interaction in managerial decision making among Harvard business graduates. The study found peer effects in a firm's decisions particularly in investment, firm size, debt financing and coverage with more pronounced effect in the acquisition and compensation-related decisions. Similarly, Chen and Chang (2013), finds that U.S. manufacturing firms' follow their peers in deciding their own cash holding levels. Moreover, this behavior is stronger in firms that are research and development intensive or/and financially constrained.

Investment literature also explored the importance of peers in making this crucial decision. In, Foucault and Fresard (2014) study, managers in the U.S. firms are found to be following the industry peers while deciding their firm's investments decisions. Similarly, Park et al. (2017), confirms the existence of peer effects among U.S. firms while making investment decisions. And, this effect is stronger among firms that are financially constrained. Additionally, firms are more sensitive to their peer firms' investment decisions when faced with more industrial competition.

Peer influence also serves as a medium to create a social multiplier effect. Under such effect, an initial shock may bring about large change, as individuals or entities are directly influenced by each other's actions. Kaustia and Rantala (2015), observe that a recent stock split by the peer firms increases the chances that a firm also goes for splitting its stocks in the U.S. Moreover, such behavior shows that managers interpret stock split by peers, as a signal that nominal stock price has a positive association with firm value.

Billett, Garfinkel, and Jiang, (2016), attempt to investigate peer effects transmission through the capital's supply-side in financial policies. The study reveals the role of capital supply, information, and intermediaries connecting peer firms' financial policy. Further, it shows that constrained firms' equity issuance decisions depend on peers' recent SEO activities and those common financial intermediaries strengthen the transmission of peer effects. Besides these, capital structure decisions also show the importance of peer effects.

Peer effects are also seen in other countries besides the U.S. Like, in a Chinese study, Chen and Ma (2017), find peer effects the investment decisions of Chinese listed firms. They find that a one standard deviation rises in peer firms' investments are accompanied by a 4 percent increase in a firm's own corporate investments. Moreover, firms that are comparatively younger, industry followers and are faced with severe competition, have a higher tendency to follow their peers. Another Chinese study also shows that peer effects



in investment decisions are greater under higher economic policy uncertainty (EPU) (Im, Kang, & Park, 2018).

Likewise, Joo, Yang, and Yang (2016) observe that peer firms cash ratio influences a firm's cash holding decisions among Korean manufacturing firms. Small and medium enterprises (SME) in Spain, show that peers' geographical closeness affects these firms' financial decisions such as profitability, liquidity, and indebtedness (Maté-Sánchez-Val, López-Hernández, & Mur-Lacambra, 2017). Evidence from financial sector also verify the importance of peers in the banking industry in countries outside the U.S. Like, Malik, Mamun, and Amin (2018), find a link between bank's corporate social responsibility (CSR) activities expenses and its peers CSR expenditures in Bangladesh.

Industry Concentration and Peer Effects

Financial decision making also varies with the industry's characteristics such as competition level in which firms' operate. Williams (1995), suggests that firms' choice of financing is related to the interaction with their industry's competitive position. Theoretically, he argues that in equilibrium, capital intensive firms may become more profitable than labor-intensive firms. Thus, managers of capital intensive firms may include debt in their firms' capital structure but still, are less risky as compared to labor-intensive firms.

Environmental pressure traditionally governs by the level of competition in the industry, influences firms' decisions. Therefore, firms belonging to less competitive industries (also known as concentrated industries), attain rents that let them survive without curtailing costs including cost of financing. Whereas, firms operating in industries with high competition must adjust their financial policies in order to safeguard their market position.

Aligning with the rationale presented by Lieberman and Asaba (2006), an evolving strand of financial literature analyzes the role of rivalry based theories in explaining the peer effects. Though these studies are limited; they provide a plausible explanation when peers matter more particularly in financial decision making. MacKay and Phillips (2005), find that firm-specific financial decisions are subject to industry peers' decisions. Also, they suggest that this interdependency between a firm and peers' financial decisions is substantial both statistically and economically. Moreover, their study highlight that financial decision making is more diffused in competitive industries.

Almazan, and Molina, (2005), observe that firms have different capital structures when the industry in which they operate is more concentrated. Differences in leverage ratios within the industry can be explained through the agency theory of capital structure. Therefore, for industries with low levels of agency conflict, the firm's value maximization is achieved through capital structure decisions. Whereas, in industries where agency conflict is severe, firms' debt choices are influenced by managerial objectives and preferences.

Similarly, industry concentration is also helpful in explaining the motivation for peer effects and capital structure decisions. As rival based theory suggest that firms mimicking serves as a method firms use to moderate competitive pressure. Thus, firms mimic others in order to preserve their relative position or to mitigate their competitors' assertive actions. This imitation is more common when firms having similar resources and positions in the market, face each other. Rauh and Sufi (2012), observe that a high degree of correlation exists among firms' financing decisions operating in the same industry and similar assets.

Likewise, when bankruptcy risk increases in a highly competitive environment, firms find it more appropriate to learn from their peers' financial policy (Ozoguz & Rebello, 2013). And, this learning behavior also reduces competitors pressure on firms to an extent. Hence, learning behavior enable firms to maintain their status quo amongst close competitors, even for the strongly competitive industries. Highly indebted firms may also

imitate the financing decisions of their less indebted competitors when the expected cost of predation becomes severe (Bolton, & Scharfstein, 1990).

Leary and Roberts (2014), argue that among various theoretical motivations of peer effects in financial decision making, product market interaction (also known as level of competition/concentration in any industry) may also be influential. When a firm mimics the financial policies of its peers, it may also avoid falling behind the industry rivals. This mimicking behavior is more pronounced in case of moderate competition when competing firms are more homogeneous in terms of resources and market share. Most of the studies have used the Herfindahl-Hirschman index as a measure of industry concentration (Almazan & Molina, 2005; Smith, Chen, & Anderson, 2015; Valta, 2012).

Similarly, in the case of Chinese firms, it is found that the interaction between peer firms and the level of competition is significant and positive (Chen & Ma, 2017). Thus, taking similar actions as competitors, no firm would fail or succeed relative to others. Mimicking peer firms' investment behavior help in maintaining the status quo in a competitive market. However, in another study, Park et al. (2017), find peer effects in investment decisions vary with the level of competition among the U.S. firms. Since mimicking behavior is attributed to taking less risk and being collective. Therefore, in a market where firms want to differentiate from their competitors and try to discourage others, this conservative and collective behavior in financial decisions is likely to be weak.

Liu and Wu (2016), investigate the peer interaction in CSR activities among the U.S. firms. They find that when peer firms show a higher level of CSR, it's more likely that a firm also engages in CSR activities. Moreover, this response is stronger in highly competitive industries. Likewise, Cao, Liang, and Zhan (2018), also explore the influence of competition on the relationship between peers and the firm's CSR activities. They found that the U.S firms don't want to lose their competitive advantage to their peers, hence they consider opting for the CSR practices of their peers. They further suggest that this spillover behavior occurs as a response to avoid competitive threat not just because managers want to keep up with the Joneses. Thus, this limited literature shows that the level of competition does play a role in explaining why and when it is more likely that managers mimic other firms' financial decisions.

Conclusion

Financial decisions have traditionally ignored the importance of other firms in the industry. Thus, much of the financial research either focus on the firm's own characteristics as a critical determinant for decision making or have controlled for the industry effects through industry dummies. However, there is a consensus among corporate leaders globally that peers' financial decisions are an important input for their own firms' decision making (Brounen et al., 2006; Graham & Harvey, 2001; Maquieira et al., 2012). Therefore, comparatively a new strand of literature emerges exploring the role of peer firms in financial decision making. This paper attempts to bring together that selective literature and identify the critical areas in financial decision making where peer effects are observed. Moreover, this article provides additional insight into the role of industry concentration in explaining peer effects in financial decisions. Overall, this review of the peer literature highlights the prospective domains that can still be explored to solve the puzzle regarding situations that causes firms to follow their industry peers across different countries.

Managerial Implication

Managerial decision making always strives towards achieving greater value for the firm. Hence, the review of the literature shows that different financial actions of peer firms may help a firm in making better decisions especially if it operates in a competitive industry. Hence, for managers, information about peers' financial decisions is a strategic tool for decision making under difficult situations. Likewise, for shareholders,

following peers may signify the managerial motives enabling them to take appropriate action to discipline or compensate managers accordingly.

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