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Effects of sibling competition on family firm succession: A game theory approach

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ABSTRACT

Strong interconnections between family and business which are innate to family firms can prove to be the source of conflict. Of all conflicts, those between family members and especially between siblings erode the family's harmony and can risk the firm's continuity. The passing of the family firm's control from the founders to the next generation is a critical stage for the family firm and can be a catalyst for conflict. This article extends the use of game theory in family firm succession to explicitly include the noneconomic factors related to the family dimension, focusing on the emotional cost of conflict resulting from sibling competition. The results show that this cost is fundamental in terms of successor selection. The article shows that the *collaborative family outcome*, which results from family members cooperating and acting as a unit, is better in promoting firm intergenerational succession and ensuring that the founder's preferred child is appointed successor.

1. Introduction

The overlap between family and the business, each with its own issues and possible conflicts, means that the family firm is especially exposed to conflict. Although not all family firms are plagued with conflict, conflict has the potential to harm the firm's performance, stability and even its continuity and simultaneously threatens family cohesion and harmony. Moments of change in the family firm or difficulties in the family can trigger or exasperate conflict in the family firm. In this context management succession of the family firm can be seen as a potential conflict catalyst.

The succession process in the family firm can lead to siblings competing for the executive control of the firm which can result in conflict, with repercussions on both the family and business dimensions. An extreme and epic example of such conflict between siblings was the case of the succession process at Reliance Industries. The founder, Dhirubhi Ambani passed away in 2002 without naming his successor or leaving a will. His elder son, Mukesh, was appointed chairman and his younger son, Anil, the vice-chairman. Soon after power struggles began with one brother trying to push the other out of the firm and rapidly the rivalry escalated. Their mother stepped in to solve the conflict between the two brothers by promoting the demerger of the conglomerate in 2005. Mukesh retained Reliance Industries, including oil and gas, petrochemicals, and textiles operations, while Anil took over Reliance Infocomm, Reliance Capital and Reliance Energy. However, the fighting continued until 2010 when their mother, made both her sons sign a noncompeting agreement to put an end to years of legal fights. Since 2013 there have been signs that two of the richest and most successful business men in India have began to put their differences behind them and rekindle their family ties.

Although the business arena has witnessed various instances of family firm successions beset with dispute between brothers[1] this is not always the case. However, given the negative impact that sibling conflict can have on the firm and the family it is imperative to improve the understanding of the role it plays in the context of family firm succession. We respond to this need by expanding the limited literature on conflict in family firms to include the impact of sibling competition on the choice of the successor. We focus on the sibling competition which arises from the competitive

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[1] For more cases refer to Grant and Nicholson (2008), *Family Wars: Classic Conflicts in Family Business and How to Deal with Them.* London: Kogan Page.

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behavior of siblings driven by the desire to become the new head of the family firm.

We further contribute by extending the use of game theory in family firm succession. Game theory is the study of decision making by various rational players where decisions made by each player has repercussions on the outcomes of the other players. The strategic interdependence is the essence of game theory. The selection of the successor for the family firm is essentially a strategic decision, involving the founder and the potential successors. The mathematic foundations of game theory provide a rigorous and objective analysis on one of the most demanding challenges that the family firm faces.

We contribute to advancement of game theory as an important tool in family firm succession analysis as it rationalizes the underlining process more deeply. Additionally, by including the emotional factors in our analysis, we enable a better understanding of the behaviors and motivations of all involved, highlighting the impact on successor selection.

In our game we explicitly include the emotional cost of conflict which can result from sibling competition. Our Nash subgame perfect results show that the emotional cost of conflict resulting from sibling competition plays a key role on successor outcome. That cost directly influences the propensity of the founder's preferred child being successor.

Lastly, we extend the notion of collaborative family, presented by Dyer (1986) and apply it our modeled game, in order to study which successor outcome would be optimal for the family, as a unit. That result, which we refer to as the co*llaborative family outcome,* increases the propensity of intergenerational succession of the family firm being secured, when compared to the subgame perfect Nash equilibrium. Additionally, our findings highlight that when all the members collaborate this augments the propensity of the founder's preferred child being the successor.

The paper begins with a review of the relevant literature which is then followed by the presentation of our game and discussion of the results. We finalize by reflecting on the findings, and suggest future avenues of research.

2. Intergenerational family firm succession

The family is a key part of the firm and the firm is also important to the family (Pieper & Klein, 2007). The overlap of the family and the business sphere is a distinctive characteristic of the family firm. Thus value creation in the family firm is seen as a sum of both economic and noneconomic goals (Gómez-Mejía, Núñez-Nickel, & Guiterrez, 2001; Gómez-Mejía, Haynes, Nuñez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Klein & Kellermanns, 2008). Distelberg and Sorenson (2009) argue that the family firm pursues goals linked to the business (economic) and others related to the family (emotional). The underlining goals determine the way the founder (and management teams) makes decision.

2.1. Successor attributes

The choice of successor is a key strategic decision. When making this choice the founder takes into consideration potential successor's interpersonal skills (Motwani, Levenburg, Schwarz, & Blanson, 2006); strategic thinking (Cater & Justis, 2009); capabilities in fields of accounting, human resource management, operational management (DeNoble, Ehrlich, & Singh, 2007); communication skills and the power to motivate, influence and inspire people (Waldman, Siegel, & Javidan, 2006). Other than these aspects, which encompass the leadership ability of the potential successor his family orientation is also considered. Family orientation, introduced by Lumpkin, Martin, and Vaughn (2008) is an individual measurement of the "familiness" construct, introduced by Habbershon and Williams (1999), and indicates the extent the child perceives and values family involvement in the family business.

A founder when choosing the successor will take into account the leadership ability but also the potential successor's family orientation. He will weigh both these aspects according to his preference which is affected by, among other factors, the cultural setting (Jayantilal, Palacios, & Jorge, 2015).

2.2. Emotional and economic factors

The family firm has been identified as a fertile field for conflict (Harvey & Evans, 1994) due to the influence of the family in the firm (Sorenson, 1999). Sibling competition which occurs when siblings race against each other for the successor position in the family firm, can lead to affective conflict harming both the business and the family (Friedman, 1991). Conflict is a relevant emotional cost for all involved. The valuation in the family firm is the sum of the financial and the emotional value (Astrachan & Jaskiewicz, 2008). The emotional value results from the interaction of the family and the firm in the family firm whereas the financial value is the traditional discounted cash flow valuation of the firm. The emotional value includes the emotional benefits net of the emotional costs. The main noneconomic benefits refer to continuity and legacy (Chrisman, Chua, Pearson, & Barnett, 2012) whereas the key emotional cost is the cost of conflict (Zellweger & Astrachan, 2008). This emotional valuation is performed by all involved and is increased by their affective commitment.

The way the firm deals with critical issues and faces challenges can exasperate conflict. Managerial succession is critical for the family firm's continuity. Deciding on who will succeed is one of the most important challenges that the founder of the family firm faces. The way the process is handled, how expectations are managed, and how the final choice made can sparkle hostility in the family, especially among siblings.

Sibling rivalry is natural and to some extent exists in all family contexts. In extreme cases sibling rivalry can lead to the stagnation of the family firm succession process (Miller, Steier & Breton-Miller, 2003) and the total failure of the succession process resulting in the dissolution (Avloniti, Iastridou, Kaloupis, & Vozikis, 2014) and disintegration (Griffeth, Allen, & Barnett, 2006) of the family firm.

3. Family firm succession and game theory

The existing literature on family firm succession using game theory is quite disparate in terms of the role attributed to conflict between siblings. Some of the research emphasizes the successor choice and doesn't focus on conflict issues. As is the case of, Lee, Lim, and Lim (2003) who studied the impact of the business's degree of idiosyncrasy and the ability of the potential successor on successor selection. They showed that families prefer to appoint a family member as successor, as opposed to an outsider, when the firm is a high idiosyncratic business. Bjuggren and Sund (2001) also used game analysis to study succession but focused on the role of legal and transactional costs on ownership succession. The impact of the legal context on the choice between a family and a professional manager to head a public firm, was analyzed by Burkat, Panunzi, and Shleifer (2003).

Blumentritt et al. (2013)Blumentritt, Mathews, and Marchisio (2013) present an introduction to the use of game theory to study succession in the family firm. In their game the children chose, simultaneously, to run to succeed their father in the firm, and then this was followed by the father appointing his successor. The child's desire to become the successor net of the cost of running for