Succession in Indian Family Firms:

Impact of Successions on Performance of
Indian Family Firms

by

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Abstract

This paper uses a unique dataset from India to investigate the impact of family successions on the performance of publicly traded family firms in India. I break down succession by two categories, first by whether or not there is a fight for control between the heirs of a firm around succession, and second by whether or not the operations of the firm are split into two or more business units following succession to study the impact of fights and splits on firm performance. I use Return on Assets (ROA) as a measure of firm performance, as I believe it represents a fair comparison of profitability across firms of different sizes in different time periods. I found that successions in family firms improve firm performance. Further, I found that that fights between heirs around succession improve firm performance more than no fights, whereas splits improve firm performance less than no splits. However, these results are not statistically significant. Overall, I found that firms that experience fights for control between the heirs around succession, and firms' which are split up into two or more business units, underperform firms with no fights and no splits in terms of ROA, both before and after succession.

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I. Introduction

Family businesses have been around for centuries, and even today account for a large part of economic activity all over the world. Ranging from companies like Rothschild to News Corp and Ford, companies that are owned by or controlled by families are present in almost every industry. In the United States, "founding family ownership is present in 35% of the firms in the Standard and Poor's 500"[1]. Family businesses employ 42% of the entire workforce in the United States and account for 95% of companies that produce 50% of its Gross National Product[2]. In Europe too, family businesses play an extremely important part. In Germany, more than 80% of all businesses are family businesses and these produce almost 60% of the yearly GNP[3]. Asia too, is characterized by family businesses in different parts of the conintent from Japan to India.

Family businesses have long been a part of the Indian culture. As a matter of fact, the Hindu Undivided Family (HUF) is a separate form of business under the Indian tax code. The head of the family, also called the *karta* is analogous to the chairman of the board of directors. He makes all the important decisions for the business. These businesses were traditionally passed down only to male members of the family, but recent laws allow female members to be named successors. Family businesses in India dominate most of the public and private sector. Many of the public companies listed on the Bombay Stock Exchange (BSE) as well as National Stock Exchange (NSE) are controlled by families. These include Mukesh Ambani's Reliance Industires Ltd. in petrochemicals, and Anil Ambani's Reliance Communications in telecomm, as well as companies such as

[1] Bertrand, Marianne, and Schoar, Antoinette "The Role of Family in Family Firms. *Journal of Economic Perspectives Volume 20, Number 2*. Spring 2006. pp.73 – 96.
[2] www. lcvco.com
[3] www.ebs.de

Azim Premji's Wipro in technologies, Malvinder Singh's Ranbaxy in pharmacauteicals, G.M. Rao's GMR in contruction, Adita Birla group involved in everything from cement to textiles, Rahul Bajaj's Bajaj Autos in automotives, Vijay Mallaya's United Breweries in breweries, and Kotak Mahindra in financial services.

A key issue in family firms deals with succession. Succession in publicly traded family firms can take the following forms:

- The firm could be handed over to be run by professional managers with the family still owning a large percentage of the company
- The firm could be split between more than one family member in a planned and peaceful manner
- Two or more family members could fight for control of the firm, which could result in the firm being forced to split up
- Two or more family members could fight for control of the firm, which may not result in splitting the firm up, but coming to a compromise and jointly running the firm
- One member of the family could take over the position of head and run the firm
- More than one member of the family could take over the operations of the firm but run it as a single business unit

The manner in which successions take place in publicly-traded family-controlled firms tend to affect their prospects for value creation. Family successions could, in one way, create more firm value than non-family successions, because family members unlike professional managers would tend to focus on long term value creation because the beneficiaries of this long-term value would be none other than their heirs. In another way though, family successions could lead to value destruction, specially if multiple successors fight to control the firm, or split the firm into pieces.

The purpose of studying Succession in Indian family firms is two-fold:

- The Indian stock market has become a hot destination for investments. As the level of the SENSEX rises, the total market capitalizations of all firms traded on the Bombay Stock Exchange also rises. A large part of the exchange is made up of firms that are controlled by families. Fights within the controlling family and successions affect these firms and as a result, affect the investors of the firms.
- Research on family successions will enable managers, founders, and owners of family firms to plan appropriately for succession so as to minimize any negative effects of unplanned successions brought to light through research. It will allow managers to allocate appropriate resources in terms of time and money so as to avert fights among their heirs, and minimize any destruction to value of the firm.

This paper attempts to answer the question, "What are the determinants of successful family successions?". Specifically, it investigates the role of family fights and business splits. As a motivation for this study, the paper begins by reviewing a succession case in which the heirs to a family firm fought for control of the firm. This case illustrates that fights can be detrimental to firm performance. Next, the paper presents cases of Indian family firms that have put into place measures to prevent fights about succession among heirs to the family business. This evidence suggests that family firms recognize the negative effects of fights and try to mitigate its effects. The paper then provides systematic evidence. To study the impact of succession on family firms, I manually collected articles to create a unique dataset of Indian family firms that recently had successions and gathered data on potential factors that could affect the change in profitability brought about by the succession. Using this data, I found that family successions in India increase ROA by 0.98%, however, a large part of this could be due to overall growth of the Indian economy. Further, firms which have fights over successions have a 0.58% higher increase in ROA than those that do not have fights, but firms that are split up have a 0.05% lower increase in ROA than firms that are not split up. I also found that firms that have fights or splits, typically underperform firms that do not, both before and after succession.

II. Prior Literature

In the paper "Inside the Family Firm: The Role of Families in Succession Decisions and Performance," Bennedsen et all explore successions as a key event in family businesses[4]. They start out with the argument that succession of CEOs by family heirs may have a positive impact on family businesses because these CEOs benefit from non-monetary rewards linked to the firm's success. These family successors are often brought up learning the business and hence have a more fundamental understanding its operations, resulting in them being able to secure the trust of majority of the stakeholders. However, they also acknowledge that family politics may have an impact on business decisions. According to Bennedsen et. all, firms that hire professional CEOs perform better than firms that choose to hand over the business to family heirs.

Bertrand and Schoar touch upon a number of characteristics of family businesses in their paper "The Role of Family in Family Firms"[5]. Managers in family firms generally have an incentive to create long-term value, as beneficiaries of their long-term

[4] Bennedsen, Morten, Nielsen, Kasper Meisner, Pérez-González, Francisco, and Wolfenzon, Daniel, "Inside the Family Firm: The Role of Families in Succession Decisions and Performance" *Quarterly Journal of Economics*, (2006), forthcoming
[5] Bertrand, Marianne, and Schoar, Antoinette "The Role of Family in Family Firms" *Journal of Economic Perspectives Volume 20, Number 2*. Spring 2006. pp.73 – 96

value creation will be none other than their heirs. However, family firms are also characterized by nepotism, inheritance norms, and family politics. Relationships between family members often have an effect on business decisions which may lead to destruction of value. A key event in the life of family firms is succession. A smooth transition of control from one generation to next is crucial to the survival of these businesses.

In the paper "Mixing Family With Business: A Study of Thai Business Groups and the Families Behind Them", Bertrand et. all study the effect of family ownership and control structures on Thai family businesses[6]. They find that larger families tend to have more members involved in the business, especially as the business passes down from generation to generation. However, these firms on average are less successful than firms run by smaller families, or by members that belong to the first few generations after the founder. They conclude that fights within the family, and splitting up of the firm leads to value destruction for family firms in Thailand.

Francisco Perez-Gonzalez in his paper "Inherited Control and Firm Performance" attempts to determine the impact of family successions on the performance of family businesses[7]. On the one hand, he argues that family CEOs perform better than non-family CEOs by minimizing agency costs and managing for the long term, and on the other hand, he argues that family successions are detrimental to firm performance. Family successions limit the pool of candidates for the selection of potential successors and hence limit the scope to find talent. Perez finds that family successions weaken ROA by 18% and market to book ratios by 12% in the first three years on average as compared to

[6] Bertrand, Marianne, Simon Johnson, Krislert Samphantharak, and Antoinnete Schoar, "Mixing Family with Business: A Study of Thai Business Groups and the Families behind Them," unpublished, University of Chicago, 2005.

[7] Pérez-González, Francisco, "Inherited Control and Firm Performance," *American Economic Review*, (2006), forthcoming.

non-family successions. He thus concludes that the impact of family successions on firm performance is worse than the impact of non-family successions.

So far, there has been no literature breaking down family successions by characteristics such as a fight for control between the heirs, or a split in the operations of the business, and so this paper studies the impact of these two issues on succession in Indian family firms. I believe that firms in which heirs fight for control would have lower improvement in performance after a succession event than firms in which the succession is smooth. The same would be true for firms which experience a split in business operations after a succession event. I believe that this split could destroy value, and have a lower improvement in performance than firms that remain united.

III. Do Fights Destroy Value: Case Study

The Reliance Group

The Reliance Group, founded by Dhirubhai Ambani in 1959 is a $23 billion group that not only owns the third-largest oil refinery in the world but is also the largest producer of polyester yarn in the world, and India's largest mobile telephone services and power company. Sales of the Reliance group make up 3.5% of India's GDP, and its exports contribute to 6% of India's total exports[8].

Traditionally, in Indian family businesses, the first-born son inherits the business. As a result, it diminishes the chances of a fight between heirs of a business family. But often, families use a complex network of investment companies with no direct control in each to control their empires. They control their businesses by a maze of cross-holdings between different companies. In this manner, they minimize tax incidence, but make succession planning more difficult. The Reliance Group too, has a complex ownership

[8] www.ril.com

structure wherein the Ambani family has the controlling interest through a network of over 200 investment companies rather than directly through family holdings.

When the founder of the Reliance group of companies, Dhirubhai Ambani suffered a stroke in 1986, he decided to deal with the issue of succession by clearly defining management roles for both his sons, Mukesh and Anil. He made Mukesh Managing Director and Vice-Chairman, and Anil Managing Director, in the group’s flagship company Reliance Industries Limited (RIL). At the dawn of the new millennium, he began delegating more responsibilities to his elder son, Mukesh by giving him the post of chairman of the Indian Petrochemicals Corporation Ltd. It was thought that Dhirubhai groomed both his sons as per their backgrounds and personality. Mukesh had completed an engineering degree from Stanford University and hence was meant to deal with manufacturing, engineering, and issues related to implementation of projects. Anil had a management degree from Wharton at the University of Pennsylvania and as a result was more involved in the finance, marketing, investor and public relations aspect of the business.

Towards his last few years, Dhirubhai merely supervised policy directions for the board and laid down broad guidelines for major decisions while his sons handled most of the day-to-day operations. Investors expected operations to be split into two major divisions upon succession, with Mukesh controlling the flagship company Reliance Industries, and Anil controlling Reliance Petroleum. However, in early 2002, both these companies merged, proving the markets wrong.

Infact, both Dhirubhai’s sons were able to grow the empire from a turnover of Rs. 744 crore and profits of Rs. 71 crore in 1985 (the last year it was managed by Dhirubhai on a day-to-day basis) to a turnover of Rs. 60,000 crore and profits of Rs, 4,604 crore in 2002. The market capitalisation grew 50 times from Rs. 906 crore to Rs. 45,840 during the same period.

With the demise of Dhirubhai Ambani on July 6th 2002, speculation on the issue of succession became a hot topic. The market waited and watched to see if there would be a feud between the brothers. But atleast initially, succession seemed smooth. The elder son, Mukesh took over as chairman of the group. Because of the growth and improved performance brought about by the sons in years just prior to Dhirubhai's death, the market believed that succession planning in Reliance had been successful.

The first indication that succession in Reliance was not as smooth as it seemed, only came to light on December 28th, 2002 when Anil did not attend the launch of Reliance Infocomm, which was headed by Mukesh. However, the brothers denied the rumor until late 2003, when half of Reliance Energy's directors resigned from its board and made the feud obvious. As a result, shares of Reliance Energy, which was managed by Anil dropped 13%, and shares of Mukesh-led Reliance Industries dropped 8%. The SENSEX, the benchmark index of the Bombay Stock Exchange, dropped 64 points in response to these rumors. Yet, the brothers denied having any differences between themselves and advertised their unity through various media channels, as a result of which, the market recovered sharply.

When the dispute between the brothers became public, Reliance shares could not keep up with the SENSEX destroying value for Reliance's 3 million shareholders. A settlement between the brothers was finally announced by their mother, the wife of Dhirubhai Ambani in early 2005. The markets rose more than 1% on this news. Under this settlement, Mukesh would head Reliance Indsutries, the group’s flagship petrochemicals and oil company as well as Indian Petro Chemicals Ltd. and Anil would head the utilities company, Reliance Energy, the mobile telephone company, Reliance Infocomm and the financing company, Reliance Capital. Shares of the to-be Mukesh-led companies went up by 5% and Anil-led companies went up 18% because the brothers would finally be able to focus their energies on the business rather than on battling each other in court.

The brothers' dispute had a great impact on the markets as a whole and on the SENSEX, which moved along with the dispute. Issues with corporate governance were brought to light. This dispute calls to attention the need for appropriate succession planning in family businesses, to prevent any destruction of value. However, in some instances, if feuds trigger much-needed corporate governance reforms, they could turn out to be success stories. It has been said that in the long-run, the fight between the Ambani brothers has been one of the most successful fights, in terms of creating value for its shareholders. However, not all fights increase shareholder value, and keeping this in mind, the following section gives examples of companies that have put into place certain mechanisms to prevent fights among their scions.

IV. Mechanisms in Place to Prevent Fights: Case Studies

Some companies realize that succession can turn out to be a sudden, unplanned event in the family. To prevent fights in a situation where the head of the company can suddenly no longer run the business, these companies put into place mechanisms such as trusts, family councils, etc. These mechanisms can be divided into four major categories represented by the four cases given below.

Case 1: Jindal Group: A Planned Operational Split

The Jindal Group, a US $4 billion conglomerate, comprises four major companies: Jindal Stainless, Jindal Saw Ltd., Jindal Steel & Power Ltd., and JSW Steel Ltd. The steel giant is the sixth largest business house in India in terms of assets and was set up in 1970 by Mr. O.P. Jindal, who was later joined by his four sons P.R. Jindal, Sajjan Jindal, Ratan Jindal and Naveen Jindal[9].

During his lifetime, O.P. Jindal allotted each of his four companies to one of his four sons, who ran them independently as their own businesses, with him as the head. P.R. had Jindal Saw, Sajjan had JSW Steel, Rattan had Jindal Stainless, and Naveen had Jindal Steel & Power. However, all the brothers had shares in all four companies. Mr. O.P Jindal later stepped down as Chairperson of Jindal Saw and was succeeded by his eldest son P.R. Jindal, but remained chairperson of the other three companies. The younger three sons were vice-chairpersons of the companies they ran.

When Mr. O.P. Jindal suddenly passed away in a helicopter crash on 31st March 2005, Jindal Group was left without a head. Shareholders wondered who the next chairperson would be. Would ownership in the group be divided in the same format as operations or would the sons manage to run the companies under one umbrella without fighting for power? When the decision was announced, shareholders realized that the four sons wanted to remain united and refrain from fighting against each other. They had appointed their mother, Savitri Jindal, as chairperson of all four companies in the group. The eldest son P.R. Jindal, even stepped down from his position of chairperson in Jindal Saw for his mother, and became vice-chairman.

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[9] www.jindalsteel.com

However, Savitri Jindal has never been associated with the business, and remains a nominal head. The group still continues to function under the structure that was prevalent before Mr. O. P. Jindal passed away, wherein the four companies are run as independent businesses by his four sons, but all the four sons own parts of all four companies. This strategy of making the mother the nominal head is commonly adopted by Indian firms to keep their companies united.

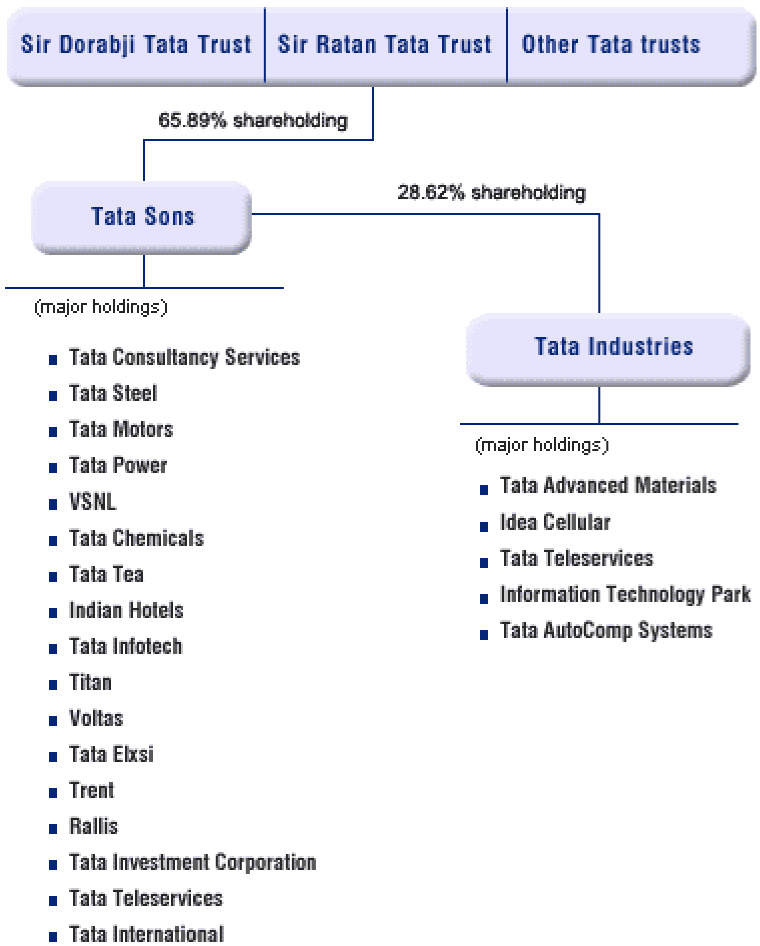
Case 2: Tata Group: The Family Trust

The Tata Group with a market capitalization of about $52 billion, comprises nearly 100 companies in business sectors ranging from information systems and communications to engineering, materials, services, energy, consumer products and chemicals. Of these, 28 companies are publicly traded, the largest of which are Tata Steel, Tata Consultancy Serives, Tata Motors and Tata Tea. The group was founded by Jamsetji Tata in the mid-nineteenth century and is now one of the largest business conglomerates in India[10].

Jamsetji Tata was succeeded by his sons Sir Dorab Tata and Sir Ratan Tata, who were responsible for the creation of the Dorabji Tata Trust and the Sir Ratan Tata Trust. Realizing that succession would be a crucial issue in the life of the Tata Group, its founders bestowed a large part of their wealth to the Dorabji Tata, Sir Ratan Tata and other similar trusts created to serve Indian society. These Trusts control 65.8% of the shares in Tata Sons, the holding company for the Group. In July 2000, Tata Sons also formed a governance council to search for a successor to its present head Ratan Tata once he retires. Tata Sons has a majority shareholding in most of the companies under the Tata Group umbrella. The Chairman of Tata Sons acts as the chairman of the Tata Group.

[10] www.tata.com

This trust structure and governance council serves to protect the Tata family from fights between brothers for control of the company by placing most of the ownership of the group in the hands of charitable trusts. The sons of the Tata family act first as administrators of the trust, to secure wealth for the trust, which has the majority holding in the group. The chart below represents the structure of the Tata group of companies[10].



Case 3: Dabur Group: The Family Council

Dabur India Ltd. is an Indian consumer goods company founded in 1884 by Dr. S.K. Burman. It offers a wide range of health care, personal care, food and ayurvedic (medicinal) products and has a market capitalization of over $2 billion. For more than a century after it was formed, the company was run as a family business with the CEO being a member of the Burman family. In 1986, the company went public, and soon after, in 1998, the Burman family appointed professionals to manage the company to adhere to stronger corporate governance standards. However, the Burman family still has control over the operations of the company and the positions of chairman and vice-chairman of the board of directors[11].

Since Dabur has now passed down to the fifth generation of the Burman family, the family realized that it needs to put into place some mechanisms to prevent fights within the family. The family has appointed a family council comprising ten male family members to deal with major issues facing the company, but left the day-to-day management in the hands of professionals.

The family council acts as an intermediary between the Burman family and the Board of Directors, and encourages the Burman sons to develop their own ventures which they then present to the family council for approval. If approved, their proposals are funded by the company. This enables Dabur to pick a successor from amongst the brightest and most talented family members.

Case 4: Ispat Group: A Planned Ownership Split

Ispat Industries Limited is one of the largest steel companies in India. The Ispat Group was set up in 1952 by Mr. M. L. Mittal, who was later joined by his three sons Lakshmi Mittal, Pramod Mittal, and Vinod Mittal. Lakshmi Mittal helped take the company international in 1974[12]. As the company grew bigger, Mr. M. L. Mittal realized he needs to take steps to prevent fights between his sons over succession issues. In 1994,

[11] www.dabur.com
[12] www.ispatind.com

he split the ownership of the company into two parts. One part was given to his eldest son, Mr. Lakshmi Mittal, which comprised of the group's international operations, and has now become Arcelor-Mittal. The other part of the company, which was left in the hands of the younger sons Pramod and Vinod Mittal comprised of the group's operations in India. In this manner, by splitting the company's ownership as well as operations between his sons during his lifetime, Mr. M. L. Mittal was able to prevent fights between his sons.

Keeping these in mind, I decided to gather my data. I began by reading every possible article on succession in Indian firms on Lexis-Nexus, and came up with a list of succession dates, and news stories of fights and splits between family members from 1992. I then looked up the accounting data for this sample on Prowess, a database maintained by the Centre for Monitoring the Indian Economy. I went through the websites and filings of my sample of 124 companies to fill in any holes in my data.

V. Data Description and Summary Statistics

V. A. Data Sources

I constructed a dataset with 124 successions between 1992 and 2006 in Indian public family firms traded on the Bombay Stock Exchange. My dataset contains financial information on the firms, the name of the parent group, personal information on the father or head prior to succession, the date of the succession, the generation running the firm, the number of heirs, whether the succession was planned or not, and dummy variables for if there was or was not a fight for control of the firm after a succession, and if the operations of the group were or were not split up into two or more firms following the succession. This dataset was constructed based on different sources explained below:

1. Financial and Accounting Information is from Prowess, a dataset maintained by the Centre for Monitoring of the Indian Economy. Prowess provides all the financial statements for public and some private firms in India ranging from 1990 until 2005, as well as profitability measures such as return on capital employed, age of incorporation and details about the promoters of the company. However, some variables for firms for certain periods of time are not provided, and some firms are not listed on Prowess

2. Individual and Family Data on Family Heads is from various news sources. I first used about 900 articles from the academic research database Lexis-Nexus using the keywords "succession" and "India". This gave me a list of firms that had succession events between 1990 and 2007 and also provided data on the date of succession, number of heirs to the business, generation, whether the succession was planned or not, whether or not there was a fight for control of the firm between the heirs around succession or a split in the operations of the firm as a result of succession and some additional information for some of the firms.

3. Additional information on firm variables were found in Annual General Meeting reports of the shareholders of the company or on their website. This information includes details such as present C.E.O., founder, and generation.

I reported a succession event when either of the following conditions were met:

- The head passed away in his position
- A heir/ heirs had/ have entered and gained substantial control of the business and became involved in managing the day to day aspects, and his/ their father or, predecessor took a backseat in the operations of the business.

V. B. Firm Characteristics

Table I presents summary statistics of the firms in the sample compared to all firms, family and non-family, listed on the Prowess dataset. The first twenty rows compare accounting data from the sample to all of Prowess. In general, family firms that have had family successions over the last fifteen years have been larger than the average firm on Prowess.

Because the accounting data from Prowess only provides estimates of the firms' total assets and profits in terms of profit before interest and taxes and net income, I scaled profit before income and taxes and net income by the total assets of the firm in Table I so as to fairly compare firm performance around the time of succession. Return on assets (ROA) is calculated as the ratio of profit before interest and taxes (PBIT) to the book value of assets. ROA has been used in prior literature on change in performance around successions and is a common measure of firm profitability and performance[13]. It explains the degree to which a firm uses its asset base to generate cash. I used ROA over ROE because ROA enables comparison across firms with different debt to capital ratios. ROE only measures return on equity, leaving the debt component of a firm's capital structure out. The twenty first and twenty fifth row compare the return on capital and return on assets respectively for firms in the sample with those on Prowess, and show that family firms that have successions on average, perform worse than the rest of the firms on Prowess.

The twenty-fourth row lists the average total assets for the sample at Rs. 2,015 crore and the average total assets for all firms on Prowess as Rs. 1,271 crore, and shows that on average, the firms in the sample are larger than those on Prowess. The last row

[13] Pérez-González, Francisco, "Inherited Control and Firm Performance," *American Economic Review*, (2006), forthcoming

shows that the sample consisted of 124 firms, whereas the Prowess dataset consists of 1103 firms.

Overall, Table I shows that on average family firms that have succession events are larger and perform worse than firms in that do not. However, to my knowledge, I am the first to break down these successions to study the impact of fights for control among the heirs of a family firm and a split in the operations of a family firm as a result of succession.

TABLE I

	Succession Sample	All Prowess
Borrowing from Group Companies	0	2
Loans to Group Companies	82	10
Loans to Other Companies	63	9
Borrowings from Promoters and Directors	0	0
Investments in Group Companies	384	47
Borrowings from Banks	296	67
Authorized Capital	392	89
Bonus Equity Capital	30	4
Buy Back Amount	1	0
Buy Back Shares	155655	16701
Paid-up Equity Capital	94	32
Preference Capital	12	2
Share Capital desposited with RBI	0	0
Current Assets	762	255
Debt to Equity Ratio	1%	2%
Issued Capital	124	30
Profit After Tax	132	27
Profit Before Depreciation Interest and Tax	399	115
Profit Before Interest and Tax	308	100
Proft Before Tax	255	53
Return on Capital Employed	12%	17%
Solvency Ratio	1	-1
Total Assets	2015	1271
Return On Assets	4%	11%
No. of Firms	124	1103

VI. Empirical Strategy

VI. A. Empirical Specifications

Once I put together all the data, I manually coded all the articles I read and created a new database on Microsoft Excel, which I then merged with the Prowess dataset. Because of the incompatibility between the sample and the Prowess dataset, the sample was reduced to just 35 firms.

To study the impact of family successions on family firms in India, I estimated the difference in firm profitability measured by ROA for a two-year window before and after the succession. Though this difference controls for factors affected by time, it ignores change in profitability that could be brought about by other factors such as industry trends, and growth in the overall Indian economy.

VI. B. Change in Profitability Around Succession: Family Firms vs. Prowess

In Table II, I explored the change of profitability measured by ROA for family firms around succession. I present the two-year window ROA before succession in Column II and the two-year window ROA after succession in Column III. Column IV measures the difference between Column II and III i.e. the change in profitability around succession in family firms. Family successions occur in 35 firms out of the sample of 124 firms.

TABLE II

Change in Profitability (ROA) Around Succession			
	Before Succession	**After Succession**	**Change in Profitability**
Return on Assets (Avg)	**17.98%**	**18.96%**	**0.98%**
Std Error	6.71%	4.57%	5.30%
T-statistic	2.68	4.15	0.18

VI. C. Change in Profitability Around Succession: The Effect of Fights for Control

In Table III, I broke down family successions into instances where the heirs to the firm fight for control of the firm and where there is no fight between the heirs relating to control, to explore whether fights for control have an impact on change in profitability of firms around succession. The second column measures the average two-year window ROA before succession and the third column measures the average two-year window ROA after succession. The fourth column represents the difference between Column II and III i.e. the average change in profitability around a succession in family firms. The first row presents the average two-year window ROA for firms in the sample that had fights for control after a succession event and the fourth row presents the average two-year window ROA for firms that did not experience fights for control after a succession event. Of all the firms in the sample, 10 firms fall into the fight category, and the remaining 25 firms fall into the no fight category.

TABLE III

Change in Profitability Around Succession: The Effect of Fights			
	Before Succession	**After Succession**	**Change in Profitability**
Fight	**7.06%**	**8.43%**	**1.37%**
Std Error	3.31%	6.27%	5.44%
T-statistic	2.13	1.35	0.25
No Fight	**22.34%**	**23.18%**	**0.83%**
Std error	9.21%	5.74%	7.17%
T-statistic	2.43	4.04	0.12
Difference	**-15.28%**	**-14.74%**	**0.54%**
Std error	14.84%	9.95%	11.92%
T-statistic	-1.03	-1.48	0.05

VI. D. Change in Profitability Around Succession: The Effect of Splits in Business Operations

In Table IV, I broke down family successions into instances where the heirs to the firm split up the operations of the firm into two or more different firms and divide total control of these newly formed firms among themselves, and where the firm remains as a single united business entity after succession to explore whether splits in business operations around succession have an impact on change in profitability of a firm. The second column measures the average ROA for a two-year window before succession and the third column measures the average ROA after succession for a two-year window. The fourth column represents the difference between Column II and III i.e. the average change in profitability around a succession in family firms. The first row presents the average ROA for a two-year window for firms in the sample that split the operations of the firm into two or more firms after a succession event, and the fourth row presents the average ROA for a two-year window for firms that do not split the operations of the company into two or more firms after a succession event. Of all firms in the sample, 13 firms fall into the split category, and the remaining 22 firms fall into the no split category.

TABLE IV

Change in Profitability Around Succession: The Effect of Splits			
	Before Succession	**After Succession**	**Change in Profitability**
Split	**6.52%**	**7.48%**	**0.96%**
Std Error	2.53%	4.23%	4.00%
T-statistic	2.58	1.77	0.24
No Split	**24.74%**	**25.75%**	**1.01%**
Std Error	8.37%	5.52%	6.79%
T-statistic	2.96	4.66	0.15
Difference	**-18.22%**	**-18.27%**	**-0.05%**
Std Error	1.37%	9.06%	11.14%
T-statistic	-13.26	-2.02	-0.0043

VI. E. Relationship Between Change in Profitability and Fights, Splits

I ran a regression of the change in profitability around succession for each firm in the sample against the generation of the family running the firm, the number of heirs running the firm and dummy variables for whether there was a fight for control following succession or not, whether there was a split in the business following succession or not, and if there was a split, had the split been planned or not, and in general, whether the succession had been planned or not, and finally against the gender of the successor. I used the dummy variable '1' for a female successor and '0' for a male successor. In the regression equation, difference_1 on the left hand side represents the change in profitability measured by a two-year window ROA around a succession event. On the right hand side, Generation represents the generation of the family running the firm, No. of Children represents the number of family members involved in running the firms, Planned? Represents whether the succession was planned or not, Plans to Split represents whether the succession plan involved a split or not, Fight represents a fight for control of the firm after succession between the heirs, Split represents a split in the operations of the firm into two or more business units and Sex represents the gender of the successor.

Regression Analysis: Difference_1 versus Generation, No. of Child, ...

```
The regression equation is
Difference_1 = 0.103 - 0.013 Generation + 0.0205 No. of Children
               - 0.174 Planned? + 0.037 Plans to Split - 0.113 Fight
               - 0.006 Split + 0.057 Sex
```

Predictor	Coef	SE Coef	T	P
Constant	0.1032	0.2543	0.41	0.688
Generation	-0.0130	0.1032	-0.13	0.901
No. of Children	0.02053	0.03948	0.52	0.607
Planned?	-0.1744	0.1689	-1.03	0.311
Plans to Split	0.0371	0.2546	0.15	0.885
Fight	-0.1127	0.2393	-0.47	0.641
Split	-0.0059	0.2104	-0.03	0.978
Sex	0.0574	0.1915	0.30	0.767

S = 0.342213 R-Sq = 5.6% R-Sq(adj) = 0.0%

VII. Results & Interpretation

VII. A. Change in Profitability Around Succession: Family Firms vs. Prowess

Table I presents results using ROA for a two-year window before and after family successions. Column II indicates that family firms on average have an ROA of 17.98% before succession and Column III indicates that family firms observe an ROA of 18.96% on average after succession. Column IV implies that profitability in Indian family firms increases by 0.98% after a succession event.

This contradicts the existing literature, which articulates that family successions on average reduce profitability. However, this increase in profitability measured by an increase in ROA by 0.98% could be attributed to the fact that the entire Indian economy had been growing over the past fifteen years, the time window I used to gather the sample, and the 0.98% increase in profitability around succession could, infact, be lower than the increase in profitability for non-family firms that experienced successions.

Another cause of the increase in profitability of family firms around succession could be the increase in profitability of the overall industry. Firms that experience family successions could have a lower increase in profitability than the industry. Further, the standard error of 5.30% for the change in profitability measure is extremely high translating into a t-statistic of 0.18. This implies that the change in profitability observation of 0.98% around family successions in not statistically significant.

VII. B. Change in Profitability Around Succession: The Effect of Fights for Control

Table II presents results using ROA for a two-year window before and after family successions broken down into instances where the heirs to the firm fight for control of the firm and where there is no fight between the heirs relating to control. Row I indicates that family firms that fall into the category of fight, on average have an ROA of 7.06% before succession and Column III indicates that these firms observe an ROA of 8.43% after succession. Column III of Row I measures the change in profitability around succession of family firms that experience fights for control among heirs as 1.37%.

Row IV indicates that family firms that do not fall into the category of fight, on average have an ROA of 22.34% before succession and Column III indicates that these firms observe an ROA of 23.18% after succession. Column III of Row I measures the change in profitability around succession of family firms that do not experience fights for control among heirs as 0.83%.

Both the previous observations in Column III indicate that profitability increases in family firms around succession with a greater increase in profitability for firms that have fights than for firms that do not have fights, however the 5.44% standard error for the average is extremely high. This translates to a t-statistic of 0.25 and 0.12 for the first and fourth row respectively, making the observations statistically insignificant.

The first column of the seventh row measures the difference in profitability before succession for firms that fall into the fight category and firms that do not fall into the fight category as -15.28%, and the second column measures the difference in profitability after succession as -14.74%. This implies that firms that experience fights for control have a lower ROA both before and after succession than firms that do not experience such fights for control. This brings up the question of whether underperformance leads to family heirs blaming each other for the underperformance and results in a fight for control of the operations of the firm or whether fights for control actually lead to the company underperforming the market.

This second hypothesis could be true because the time window I used to analyze fights may not be adequate enough to actually measure the day the fight first begun. Fights begin long before they are announced, and there are numerous obstacles in determining the exact date when differences of opinions arise among heirs to a family business. However, the observation that family firms in India that have fights underperform family firms in India that do not is statistically significant to a small extent.

The third column of the seventh row represents the difference in difference results for the table which serves as a control for other factors that may affect change in profitability, because all the firms in the sample experience a succession, and the difference in difference column measures the difference in the change in profitability caused solely due to whether or not the firm experienced a fight for control among its heirs. This difference in difference column indicates that firms which have fights over successions have a 0.54% higher increase in profitability than those that do not have fights. The increase in performance could be explained by the fact that after a fight, siblings might try to outperform each other, thus benefiting the firm and leading to an increase in profitability. Further corporate governance issues could be brought to light, with improved structures being put into place as a result of the fight.

These results, though interesting, are not statistically significant due to the high standard error of 11.92% and low t-statistic of only 0.05. However, both the high standard error and the low t-statistic could be attributed to the fact that the sample size was reduced to just 35 firms as a result of the incompatibility between the database Prowess and the dataset of the sample firms.

VII. C. Change in Profitability Around Succession: The Effect of Splits in Business Operations

Table III presents results using ROA for a two-year window before and after family successions, broken down into instances where the operations of the firm are split into two or more business units and where there is no split in the operations of the firm. Row I indicates that family firms that fall into the split category, on average have an ROA of 6.52% before succession and Column III indicates that these firms observe an ROA of 7.48% after succession. Column III of Row I measures the change in profitability around succession of family firms whose operations are split as a result of succession as 0.96%.

Row IV indicates that family firms that do not fall into the category of split, on average have an ROA of 24.74% before succession and Column III indicates that these firms observe an ROA of 25.75% after succession. Column III of Row I measures the change in profitability around succession of family firms that are not split up as 1.01%. Both the previous observations in Column III indicate that profitability increases in family firms around succession with a greater increase in profitability for firms which are not split up than for firms which are split up, however the 4.00% and 6.79% standard error for the average is extremely high. This translates to a t-statistic of 0.24 and 0.15 for the first and fourth row respectively, making the observations statistically insignificant.

The first column of the seventh row measures the difference in profitability before succession for firms that fall into the split category and firms that do not fall into the split category as -18.22%, and the second column measures the difference in profitability after succession as -18.27%. This implies that firms whose business operations are split have a lower ROA both before and after succession than firms that remain united. This brings up the question whether underperformance leads to heirs having different ideas for the future of the firm and thus deciding to split the firm up or whether splits actually lead to the company underperforming the market due to the loss of synergies between the businesses. The observation that family firms in India that are split underperform family firms in India that are not is statistically significant.

The third column of the seventh row represents the difference in difference results for the table. This difference in difference column indicates that firms which are split up as a result of successions have a 0.05% lower increase in profitability than those that are not split up. The low increase in performance associated with a split could be explained by the fact that after a split, the individual firm loses the synergies it enjoyed as being part of the combined firm. However, theses results are not statistically significant due to the high standard error of 11.14% and low t-statistic of only 0.0043. Nevertheless, both the high standard error and the low t-statistic could be attributed to the fact that the sample size was reduced to just 35 firms as a result of the incompatibility between the database Prowess and the dataset of the sample firms.

VII. D. Relationship Between Change in Profitability and Fights, Splits

The regression equation for the relationship between change in profitability and fights, splits, and other variables is

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Difference_1 = 0.103 - 0.013 Generation + 0.0205 No. of Children - 0.174
               Planned? + 0.037 Plans to Split - 0.113 Fight - 0.006 Split +
               0.057 Sex
```

This equation indicates an inverse relationship between the generation of the family running the firm and the change in profitability around succession. Like Bertrand had proved for Thai firms in India too, as a firm is passed down to later generations, its increase in profitability declines by 1.3% for every generation it is passed down to[14]. This could be attributed to the fact that later generations of the firms do not identify with the firm as much as the first few generations that actually set up the firm from scratch.

Contrary to the Bertrand paper, in India there exists a positive relationship between the number of family members running the firm and the increase in profitability around succession[15]. The increase in profitability around succession is higher by 2.05% for every additional family member involved in the operations of the firm. However, this could be the result of a multi-colinearity problem between the generation of the family running the firm and the number of members involved in the operations of the firm. As the firm is passed down to later generations, the size of the family tends to increase and hence the number of members involved in the operations of the business increases as well as is apparent from the regression below. The regression shows that as the business is passed down from one generation to another, the number of family members involved in the operation of the business increases by about 2. This regression has an R squared of 50.7% and a P-value of 0 which makes it extremely significant.

Regression Analysis: No. of Children versus Generation

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The regression equation is
No. of Children = - 1.52 + 1.64 Generation


Predictor       Coef  SE Coef      T      P
Constant     -1.5199   0.8027  -1.89  0.067
Generation    1.6404   0.2818   5.82  0.000


S = 1.58271   R-Sq = 50.7%   R-Sq(adj) = 49.2%
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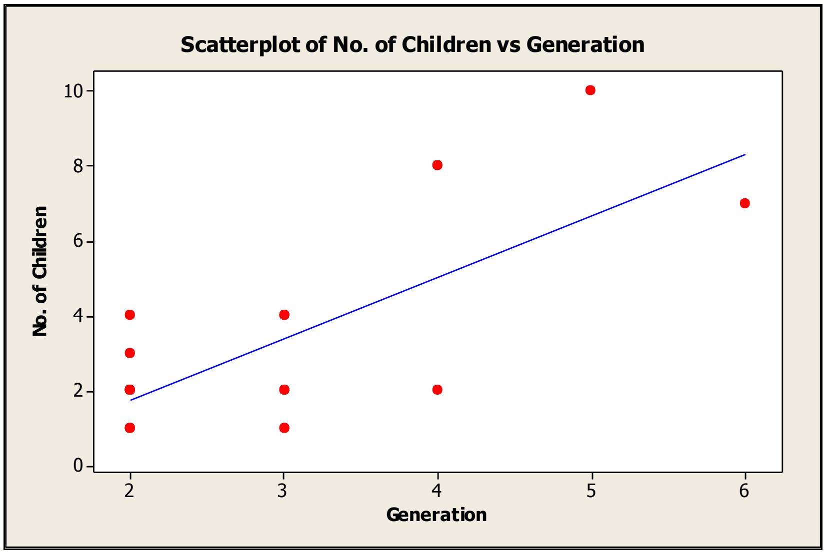
[14] Bertrand, Marianne, Simon Johnson, Krislert Samphantharak, and Antoinnete Schoar, "Mixing Family with Business: A Study of Thai Business Groups and the Families Behind Them," unpublished, University of Chicago, 2005.

[15] Bertrand, Marianne, Simon Johnson, Krislert Samphantharak, and Antoinnete Schoar, "Mixing Family with Business: A Study of Thai Business Groups and the Families behind Them," unpublished, University of Chicago, 2005.



Surprisingly, the regression equation shows an inverse relationship between the change in profitability and whether the succession was planned or not. A planned succession lowers the change in profitability by 17.44%. This could be explained by the fact that once a succession is planned, the plan begins to be implemented even before the actual date of succession i.e. the date on which the previous head retires or passes away. As a result, profitability is affected before the actual date of the succession. However, if a split is planned, it seems to increase the change in profitability by 3.71% due to the fact that a planned split may take into account the realization of synergies across the different business units.

As predicted, fights have an inverse relationship with increase in profitability. A fight for control between the heirs of a firm lowers the change in profitability by 11.27% because the heirs focus their energy on resolving the dispute and battling each other rather than on the operations of the company.

Like fights, splits too have an inverse relationship with increase in profitability. Splits in the operations of the business reduce the change in profitability around succession by 0.59% due to the resources spent on structuring the split and the lost synergies.

Finally, the regression implies that female successors on average increase the change in profitability around succession by 5.74% over male successors. Traditionally in India, family businesses were dominated by male members of the family. Female members were excluded from business. This greater increase in profitability due to female successors could be attributed to the fact that only the most capable female members are given the chance to participate in the family business, in comparison to all male members being allotted a role.

Unfortunately, the 5.6% R-squared of the regression is extremely low, which implies that all the above variables explain only 5.6% of the change in profitability around succession. The P-value of the regression is close to 1, which makes it statistically insignificant.

VIII. Conclusion & Future Research

In this paper I created a unique dataset of Indian family firms that had succession events in the last fifteen years to investigate change in profitability associated with family successions in publicly traded Indian family firms. My objective was to shed light on two questions: First, do family successions increase profitability? Second, what are the consequences of fights for control of the firm among heirs and splits in the operations of the firm on the change in performance associated with succession?

My attempts to prove that fights and splits reduce the change in profitability for firms around succession proved statistically insignificant. The only statistically significant conclusion I came to was that firms that experience fights for control among heirs, and firms that split up their business operations in two or more companies after a succession event, underperform firms that do not, which could imply that either the fights or splits cause the poor performance, or the poor performance leads to the fights or splits.

The implications of my findings are important for investors that wish to invest their money in Indian firms which are controlled by families. My findings are also important for managers of family firms so as to appropriately plan for succession.

In the future, more research needs to be done, by taking into account other factors that can affect the change in profitability around succession, such as using an industry-adjusted ROA to measure profitability of a firm. By tweaking my regression model to first try and explain change in profitability by other variables such as industry ROA, growth in the economy, and capital expenditures, and then adding dummy variables to these predictors from the dataset I created, one could better explain the change in profitability around successions in Indian family firms. Further, information needs to be gathered on a larger sample size so as to prove the empirical results statistically significant.

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