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Entrepreneurial External Resource Acquisition and Exit via IPO

A DISSERTATION IN ENTREPRENEURSHIP

Presented to the Faculty of the Cass Business School, City,
University of London in partial fulfilment of the requirements
for the degree

DOCTOR OF PHILOSOPHY

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Declaration

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ABSTRACT

This dissertation focuses on entrepreneurial finance and exit strategies via IPO. Three quantitative studies have been conducted based on a dataset of entrepreneurial firms listed for the first time in the London Stock Exchange (LSE) between 2002 and 2012. Initial Public Offering (IPO), as a major event for external resource acquisition, is a milestone in both the life of an entrepreneurial venture and the entrepreneur himself. How to gain a good performance in IPO? What factors drive their leave from the business they set up after IPO? And whether and how the founder's leave after IPO may affect the subsequent performance of the business? These questions become main concerns for both entrepreneurs and investors. The three studies in the dissertation address these issues from different perspectives. Since the research questions and test variables are different across studies, the sample size for each empirical study is slightly different from each other.

The first study extends our understanding of the categorical imperative by exploring how the category spanning behavior of the main founders may harm their resource acquisition via IPO, as well as the way they offset such penalty. This question was tested using main founders of 173 startups listed for the first time in the Alternative Investment Market (AIM) of LSE. The study supports the past literature confirming that, compared to IPO firms whose founders specialize in one industry or one function, those founded by category spanners are generally devalued by investors. However, such devaluation is less severe in case founders are partly hybrid, spanning categories in one dimension (either for industry or function) but being a specialist in the other dimension. The results also show that an external expert endorsement can offset the penalty of hybridity, especially when hybridity occurs along multiple

dimensions.

The second study explores variance in the exit decisions of founders after IPO, and examines factors explaining these decisions. Through analyzing the exit behavior of 313 founders at 177 entrepreneurial firms listed in the main and alternative market of LSE, we find that power structure is associated with founders' total exit but does not equally well explain partial exits behaviors (i.e. financial or managerial). Moreover, the effect of power on total exit is also moderated by the type of capital market in which the IPO takes place [main market of the LSE versus Alternative Investment Market (AIM)].

The third study examines whether and how different founder exit strategies influence a firm's operational and stock performance. We find that while the post-IPO departure of the main founder is related to a short-term drop of the stock performance, in the long-run, it is positively related with the firm's financial performance.

CHAPTER 1 INTRODUCTION

“An initial public offering (IPO) can provide an entrepreneurial firm with critical resources for its future expansion (Bruton, Chahine, Filatotchev, 2009).

“The IPO is also an important channel through which an entrepreneur or venture capitalist gets rewarded for his initial effort” (Zingales, 1995).

Initial Public Offerings (IPO), as a major event for external resource acquisition, is a milestone in both the life of an entrepreneurial venture and the entrepreneur himself. As an important event in the lifecycle of the entrepreneurial ventures, IPO not only provides the external financial capitals necessary for the further growth and expansion of the start-ups, but also improves firms' legitimacy in the open market and helps the venture to access additional resource with less cost (Brau, Francis, & Kohers, 2003; Ibbotson & Ritter, 1995; Ravasi & Marchisio, 2003). In the UK, the Alternative Investment Market (AIM) provides a unique platform for SMEs to raise public funds, which helped 3701 start-ups in total (3037 British ventures and 664 international ventures) raise £41747.2million at the first launch from 1995 to 2016. And the IPO is only a start, the listed companies further raised £58219.3million through the AIM market during the period (AIM statistics, 2016). Taking the importance of IPO in the process of the venture growing, increasing management and entrepreneurship literature becomes interested in exploring and discussing the IPO activities from different perspective, among which the performance of offerings is the major concern

(Certo, Holcomb, & Jr, 2009). As a focal member in establishing and organizing the new venture, the founder's influence has been proved to be persist in the process of external resource acquisition via IPO (Nelson, 2003 & 2007). However, prior literature has not further explored the heterogeneity in the association of external resource acquisition and different types of founders.

Except for offering the external capital for the growth and expansion of the start-ups, IPO also enables entrepreneurs and other investors to convert their equity into cash and generates a "dream-exit" route (Black & Gilson, 1998; Certo, Covin, Daily, & Dalton, 2001; Zingales, 1995). Entrepreneurial exit represents a major event of the entrepreneurial process, which has attracted increasing attention in the literature (Boeker & Karichalil, 2002; DeTienne, 2010). For founders, exit represents the time of harvesting, when they see the value of all their hard work invested into the business. For the firm, the departure of the founder may represent a change in the strategic orientations (Grusky, 1963; Pfeffer & Leblebici, 1973; Wiersema, 1992), as well as an infusion of new resources and energy (Haveman & Khaire, 2004). For the society, entrepreneurs free themselves from managing the business and focusing on identifying new opportunities may continually stimulate the growth of the economy (DeTienne, 2010). Despite the increasing attention to entrepreneurial exit research, most studies that viewed the IPO as a potential exit strategy only focus on investors perspective and discuss the phenomenon at the company level (Cumming, Fleming, & Schwienbacher, 2006; Bayar & Chemmanur, 2012). Very little is currently known in the existing literature on the factors that drive the founders leave the venture after IPO (DeTienne & Cardon, 2012), let alone the relationship between founders exit and the post-IPO performance of the business. Why entrepreneurs leave the business they founded after IPO, whether and how founder exit may affect the post-IPO operation

of the business has not been empirically tested.

The dissertation, including three essays, aims to fill these gaps. Through empirically analyzing a novel, hand-collected data set of entrepreneurial IPOs in London between 2002 and 2013, these essays try to address 3 different research questions relevant to funding raised and entrepreneurial exit via IPO. The first essay applies social categorization theory to discuss the external resource acquisition ability of different entrepreneurs via IPO. Social categorization theory suggests that specialized providers are endowed with more resources than those spanning multiple categories. Yet, because category spanning may simultaneously happen along multiple relevant dimensions, research must ask how category spanning in such a multidimensional space shapes outcomes. We focus on new venture founders, categorized by investor audiences along their industry and functional backgrounds, and relate founder categorization to resource acquisition at IPO in the AIM market. We find that, compared to IPO firms whose founders specialize in one industry or one function, those founded by category spanners are generally devalued by investors. Devaluation is most severe in case founders are fully hybrid, by spanning both industrial and functional categories. However, an external expert endorsement—in our case, intensive VC affiliations—can offset the penalty of hybridity, especially when hybridity occurs along multiple dimensions.

The second essay investigates the relationship between the power the founder holds at the time of IPO and their decision to exit the venture after IPO. More specifically, we distinguish between three exit options: Founders may exit financially, selling all their shares; or may exit managerially, leaving the top management team and the board of directors; or may exit totally (managerially and financially). In general, the IPO represents a time of great change for the venture in terms of both operating

control and business direction (Pagano, Panetta, & Zingales, 1998; Chahine & Goergen, 2011). We find that the power structure is indeed associated with total exit of founders. Founders that remain with less power at the time of IPO are more likely to totally exit the company they created after taking it public. Moreover, we find that the effect of power structure on total exit is moderated by the type of capital market where the IPO takes place (LSE versus AIM). But the power-succession mechanism does not explain equally well partial exits (i.e. financial and managerial). Actually, founders' financial exit behavior is more likely to be driven by their motivation of going public, and their managerial exit is driven by the life style issues, such as ageing problem.

The third essay explores the association of entrepreneurial exit with the performance of the firm after IPO. After discussing the benefits and the drawbacks of entrepreneurial exit for the listed firms, we apply the techniques of event analysis and panel regression to examine the relationship between entrepreneurial exit after IPO with the venture performance in short-run and long-run period, separately. We find that the departure of the founder is related to a short-term drop of the stock performance, suggesting that the entrepreneurial exit increases the uncertainty of the firm operation in the future which reduces the investors' trust in the open market. On the contrary, the founders' exit has a positive relationship with the annual return on assets, confirming that the transition of the business from entrepreneurial management to professional management triggered by the founder exit will finally improve the firm operation.

These three essays examine the relationship between entrepreneur presence, exit, venture performance and the external resource acquisition. As a whole, this dissertation contributes to both the entrepreneurship and general management

literature by enhancing our understanding about the role of the founder in the IPO process (before and after) for the entrepreneurial ventures. It contributes to the social categorization theory by proving that in a multidimensional space, specialization in one categorical dimension can, partly or fully, offset the hybridity penalty from category spanning along another dimension. It contributes to the power-succession literature by extending its application to a novel context of entrepreneurial exit. It contributes to the entrepreneurial exit literature by introducing a new theoretical angle to explain the empirically overlooked phenomenon (namely founder exit via IPO), as well as by differentiating between the anticipation and real effect of founder exit over the company performance. And in practice, the findings in the dissertation help entrepreneurs address their main concerns during the IPO, that is how to gain a good performance in the IPO and where should they go after that.

CHAPTER 2 FOUNDERS' BI-DIMENSIONAL CATEGORIZATION AND MONEY RAISED AT IPO

ABSTRACT

Social categorization theory suggests that specialized providers are endowed with more resources than those spanning multiple categories. Yet, because category spanning may simultaneously happen along multiple relevant dimensions, research must ask how category spanning in such a multidimensional space shapes outcomes. Does the hybridity penalty apply for each of category dimension separately? Does category spanning in multiple dimensions simultaneously increase the penalty of hybridity? Or can specialization in one dimension offset the penalty of category spanning in another dimension?

In this study, we focus on founders of new ventures, categorized by investor audiences along their industry and functional backgrounds (a two-dimensional space) and we relate founder categorization to resource acquisition at IPO. By analyzing a novel, hand-collected dataset of 173 entrepreneurial IPOs in the Alternative Investment Market in London (2002-2013), we find that, compared to IPO firms whose founders specialize in one industry or one function, those founded by category spanners are generally devalued by investors. However, devaluation is less severe in case founders are partly hybrid, spanning categories in one dimension (either for industry or function) but being a specialist in the other dimension. We also show that an external expert endorsement—in our case, intensive VC affiliations—can offset the penalty of hybridity, especially when hybridity occurs along multiple dimensions.

INTRODUCTION

By providing a comparison set, social categories help individuals quickly and

efficiently process information (Douglas, 1986; Zerubavel, 1996) and facilitate audience make judgments about value and worth (e.g., Khaire & Wadhvani, 2010; Rao, Monin, & Durand, 2005; Zuckerman, Kim, Ukanwa, & Rittmann, 2003). Over the past two decades, an increasing number of management scholars became interested in the process and influence of social categorization (Vergne & Wry, 2014).

A major argument that cuts across these studies is that items who fail to fit any established category will be less legitimate and appealing to the audience and therefore be devalued, an effect which is known as the ‘categorical imperative’ (Zuckerman, 1999; Zuckerman et. al, 2003). For producers, due to time and resource constraints, spanning categories risks offering lower quality products across any category (Freeman & Hannan, 1983; Dobrev, Kim, & Hannan, 2001; Hsu, Koçak, & Hannan, 2009); from an audience perspective, category spanners often generate vague identities which are difficult to be identified and/or evaluated (Zuckerman 1999; Rao, Monin, & Durand, 2005; Hsu, 2006). Such effect has been empirically tested and verified in a number of industry contexts, as the stock market (Zuckerman, 1999), the film industry (Hsu, 2006), the on-line business (Hsu et al., 2009) and the wine industry (Negro, Hannan, & Rao, 2010). More recently the social categorization literature has focused on the boundary conditions of the categorical imperative. Category characteristics (Ruef & Patterson, 2009; Kovács & Hannan, 2010, 2015), audience expectation (Pontikes, 2012; Paoletta & Durand, 2015), as well as the context they analyze (Vergne, 2012; Alexy & George, 2013) were found to affect the relationship between category spanning and audience evaluation, suggesting more complexity in understanding the mechanism.

While the current literature is concerned with actors categorized within a single dimension, audiences often think of producers along multiple relevant dimensions.

For example, restaurants can be categorized according to their food and their style; a restaurant can specialize in formal dining but at the same time offer a ‘category spanning’ mix of French and Chinese food. In another context, management academics can be categorized according to both their field and method expertise; a scholar can be a ‘hybrid’ between organizational behavior and strategy but he or she can be a specialist in lab experiments. While category-spanning in multidimensional spaces is a common phenomenon (Zhao, 2005), how it shapes outcomes is still unclear. Does the hybridity penalty apply for each of dimension separately? Can specialization in one dimension offset the penalty of category spanning in another dimension?

Our study aims at explore these questions in the bi-dimensional category space of founders of entrepreneurial firms looking for investment via an IPO. Founders significantly influence companies’ resource acquisition ability (Certo, Covin, Daily, & Dalton, 2001; Nelson, 2003; 2007; Chahine, Filatotchev, & Zahra, 2011). Founder identity, built through a history of career experiences, testifies their ability to manage a business of a certain type, and also helps to legitimize the entrepreneurial firm, which significantly decrease the uncertainty of the investment (Delmar & Shane, 2004). In the context of entrepreneurial IPOs, we submit that industry and functional background are two salient dimensions that characterize founders, in that investor audiences likely devote attention to both dimensions when evaluating a particular firm. Importantly, at a general level, there is agreement among the audience members on the distinct categories recognized within the industry and occupational dimensions, so much so that categories on both dimensions are habitually collected in standardized categorical schemata [e.g. the Industry Classification Benchmark (ICB) and the International Standard Classification of Occupations (ISCO)].

Interestingly, while recent years have witnessed an increasing interest among organization scholars in the study of categories in entrepreneurship and emerging industries (Glynn & Navis, 2013; Wry & Lounsbury, 2013; Zhao, Ishihara, & Lounsbury, 2013), most efforts have focused on the analysis at the product, organization or market level, rather than discussing categories of founders (with the exception of Roberts, Negro, & Swaminathan, 2013). Exploring the categorical imperative in the context of founders is particularly interesting, in the light of the “jack-of-all-trades” theory (Lazear, 2004) which argues that successful entrepreneurs should be multifaceted and have to hold a balanced skill set.

By analyzing a novel, hand-collected dataset of 173 entrepreneurial firms listed for the first time in the Alternative Investment Market of London Stock Exchange, we found that compared with founders specialized in a specific industrial or functional category, category spanners are devalued by investors in general. This penalty is most severe for firms whose founders are fully hybrid—that is, they span both industrial and functional boundaries. We also found that an external expert endorsement, in our case intensive VC affiliations, can serve to offset the penalty associated with founder’s hybridity, especially when such hybridity occurs along both the industry and functional dimensions.

Our findings enrich the literature on social categories (Zuckerman, 1999; Zuckerman et. al, 2003; Vergne & Wry, 2014) by exploring the categorical imperative effect under conditions of multiple salient classification. Based in the context of founders of IPO firms, we submit that while there is still a hybridity penalty for each category dimension separately, specialization in one dimension offsets (partly or fully) the negative effect of hybridity in the other dimension. In practical terms, category spanners looking to suspend themselves from the hybridity penalty should position as

a specialist in at least one of the two dimensions. Moreover, our study also contributes to the literature on entrepreneurial external resource acquisition (main references here) by further discussing the role of founder projected identity in the resource acquisition process.

THEORY AND HYPOTHESIS DEVELOPMENT

Social categories segment objects into different comparison sets, which enable individuals process open market information quickly and efficiently (Douglas, 1986; Zerubavel, 1996). They facilitate typecasting members to build up a clear identity and legitimate themselves in front of an audience, by providing the grouping structure that conveys distinctions between members. Concurrently, audiences will easily recognize them and make a judgment over their quality based on the expectation of certain group (Khair & Wadhvani, 2010; Rao et al., 2003; Zuckerman et al., 2003). Instead, category spanners ('Jack-of-all-trades'), fail to fall into any single category and may find difficulty in making sense of their identity, and thereby increase their likelihood to be ignored or undervalued, since it is not clear the types of expertise they have, or the way they should be evaluated (Wry, Lounsbury, & Jennings, 2014). Also, category spanners are believed to disperse their effort into different streams and result in poor performance in each category. And due to time and resource constraints, spanning categories reduces the ability of Jack-of-all-trades to effectively target and attract each category audience and eventually being penalized (Hsu et al., 2009). Such "category imperative" mechanism has been tested empirically in different contexts, such as stock market (Zuckerman, 1999), film industry (Hsu, 2006), on-line business (Hsu et al., 2009) and wine industry (Negro et al., 2010), and some moderators have also been discussed (Vergne & Wry, 2014). It has been shown to be reinforced when the organization straddles more categories (Durand, Rao, & Monin, 2007) and/or the

categories straddling are high in contrast (Kovács & Hannan, 2010; Negro, Hannan, & Rao, 2011), since individuals in a high-contrast category are either perceived as nearly fully fledged or not members at all (Negro et al., 2011). The less fuzziness boundary of the category assigns a clear label to its membership, indicating that the image of spanners between such categories would be more contradicted, and therefore further decrease their appealing. This concept improves the category study by pointing out the role of category characteristics in the categorical imperative framework. However, past studies only focus on the most salient category of test items, such as movies are categorized into genres (Hsu, 2006), patents into technology classes (Wry & Lounsbury, 2013), mutual funds into high and low risk (Lounsbury & Rao, 2004), and do not further discuss the influence of multiple competing categories on audience evaluation (Kulik, Roberson, & Perry, 2007). They do not further compare the influence across different category dimensions and discuss the cross-classification condition. In fact, individuals could be grouped into a different dimension of categories (Kulik et al., 2007), which would be no major difference in the saliency. Such as Vergne (2012) states in the study that arms industry stakeholders could be classified into industry, customer, and country categories, while, he is “unable to provide a reliable rank-ordering of the three categories along the saliency criterion”. The multi-dimension of categorical memberships may help to mitigate the legitimacy discount, as category spanners could be fitted with an alternative classification system (Kacperczyk and Younkin, 2017). In terms of entrepreneurship, both ‘industry’ and ‘business function’ are salient category dimensions that characterize founders in entrepreneurial startups, in that investor audiences likely devote attention to both dimensions when evaluating a particular firm ((Kacperczyk and Younkin, 2017). Moreover, we submit that, at a general level, there is agreement

among audience members on the distinct categories recognized within the industry and occupational function dimensions, so much so that categories on both dimensions are habitually collected in standardized categorical schemata. For example, industries are commonly categorized according to standard industrial classification systems, such as the North American Industry Classification System (NAISC) or the Industry Classification Benchmark (ICB), while occupational functions have been categorized in systems like the International Standard Classification of Occupations (ISCO). In such case, do individuals have to specialize in every category dimension to be a perfect expert to gain audience recognition, or just being typical in one category could prevent them from being penalized for hybridization in other dimensions of categories? There is no clear answer for this question in the existing literature. In this study, we target at answering this question through comparing the resource acquisition ability via IPO of different types of founders (specialist or category-spanner).

IPO, as an important external acquisition process, is characterized by high levels of information asymmetry. Since the great uncertainty increases the risk for public investors to invest in the new start-ups that lack information in the public market, any information disclosed to reduce the uncertainty and improve the legitimacy of the offering will contribute to the IPO performance. As a focal member in establishing and organizing the new venture, the founder is usually the figurehead of the new venture, such as Bill Gates for Microsoft, Steve Jobs for Apple, Mark Zuckerberg for Facebook and etc. Nelson (2003, 2007) has differentiated the role of the founder from other upper echelons and suggests that the founder influence is stronger in raising money at IPO than others. He argues that a visible founder, who serve as a focal point for other top managers because of their knowledge, experience, and organizational status, plays an extraordinary role in defining the mission and structure of the firm

(Gimeno et al., 1997; Nelson, 2003). Also as the longest tenured member of the organization, the founder's industry knowledge and practice play a central role in the development of firm's information sources, relationships and problem-solving routines, whose power cannot be easily substituted by other managers (Nelson, 2007). Meanwhile, compared with other top managers, the main founder who develops a closer link with the start-ups is usually more visible in front of investors. He/she is more frequently mentioned in the firm document and more likely to be referred, in the mass media, together with the firm. All these factors push the main founder to play a more salient role than the other top managers in legitimating and signaling the company. Since outsider investors cannot observe the comprehensive set of skills and quality of the founder, founder's reputation and identity becomes critical for the company to gain legitimacy and raise funding from external sources (Higgins & Gulati 2006; Shane & Stuart 2002). Specialized in an industry or/and functional category helps the founder to build up a clear professional identity, which may contribute to reducing the uncertainty of the founder himself and enhance the legitimacy of the entrepreneurial firm in the open market. Also, the claim of specialization in a certain industry or/and function not only signifies the founder's expertise in a certain business area, but also reveals the plausibility of his entrepreneurial endeavor in this industry/function, which may facilitate investors' evaluation of his firm (Navis & Glynn, 2011). In contrast, founders who are category spanners might be less recognized by the public investors and therefore, reducing their chances of success in resource acquisition (Dobrev et. al, 2001; Zuckerman, 1999). Therefore, we hypothesize that

Hypothesis 1a. When the founder of an IPO firm is assigned to multiple industry categories, the firm's resource acquisition is lower than a firm whose founder is

assigned to a single industry category.

Hypothesis 1b. When the founder of an IPO firm is assigned to multiple functional categories, the firm's resource acquisition is lower than a firm whose founder is assigned to a single functional category.

When dealing with multi-dimensional classification, investors are less likely to evaluate each category dimension totally separately. Therefore, the categorical imperative effects between each dimension are expected to interact with each other. As in their resume, founders not only present their industry experience, but also highlight the role they played in the old business. Since founder's functional experience signals his ability to work in a certain position or possession of professional skills, the entrepreneur who specializes in the certain functional category could also build up a clear identity in front of audience, even though he may not focus in a particular industry category. For example, a founder having worked across industries cannot argue that he is an expert in any business area. However, he may develop an image of a professional financial manager, who keeps working in financial function in different industries. This may facilitate the investors' recognition and reduce the disapproval caused by the industry category spanning. Also, a founder having worked in different functions in the same industry can also highlight his expertise in the specific industry, who would increase investors' confidence, in compared with founders who are fully hybrid in both category dimensions. Therefore, we hypothesize that

Hypothesis 2. When the founder of an IPO firm spans both industry and functional categories, the firm's resource acquisition is lower than a firm whose founder is a specialist in part or in full.

As discussed before, a category spanner cannot build up a clear identity and therefore fail to gain legitimacy of themselves and their start-ups in front of audience. How could they reduce the investment uncertainty and gain the trust of the public investors becomes the main concern of founders in the resource acquisition process. Prior studies (Sanders & Boivie, 2004) would suggest that affiliations with credible third parties may provide a substitute for perceived uncertainty regarding internal aspects of a firm, such as those due to progressive hybridity of founders, especially when such uncertainty is greatest (i.e., in the case of full hybrids). One such affiliation would be to VCs, whose retained equity signals their confidence in the IPO firm. The VC's involvement signifies the low-risk characteristics of the entrepreneurial companies to the open market, which increases the possibility of IPO success (Chahine, Filatotchev, & Wright, 2007), and such a signal would have the greatest impact especially for firms whose founders are fully hybrid. Moreover, when category spanners are supported by venture capitalists, who are efficient in information packaging and presenting, they are more likely to attract audience attention and secure their confidence, thus increasing the reward. Consequently, we hypothesize that

Hypothesis 3. The proportion of equity retained by venture capitalists increases the resource acquisition of an IPO firm whose founder spans both industry and occupational categories compared to one whose founder is a specialist in part or in full.

METHODOLOGY

Sample and Data Sources

To test our hypotheses, we start collecting the data from an initial sample consisting of all UK companies that completed IPO between 2002 and 2013 (to avoid the “dot. bomb” period), instead of conducting the study on a single or several selected

industries (Martins, Jennings & Jennings, 2007; Wu & Dokko, 2007). From the original list, we exclude re-admissions companies. We exclude IPOs of investment trusts since they have very specific governance characteristics (Chahine et al., 2007), additionally, it would be difficult to identify a founder. We exclude all IPOs that represent de-mergers, equity carve-outs, reverse takeovers and equity reorganizations. Investment and acquisition vehicles are also excluded since the original founders are no longer with the company at IPO. Our research focuses on IPO performance of entrepreneurial firm; therefore, we excluded all firms that were incorporated more than ten years before IPO in order to ensure that the firms in our sample were still in the young, entrepreneurial phase of their life cycles (Carpenter, Pollock, & Leary, 2003; Eisenhardt & Schoonhoven, 1990; Taulaulicar, Grundei, & Werder, 2005). Meanwhile, since stock performances are systematically different between the main market (LSE) and the Alternative Investment Market (AIM) and most entrepreneurial company are first listed on the AIM market in the UK, we exclude the companies who are initially listed in the main market (less than 5%). We also eliminate companies that appear as subsidiaries and spin-offs for which it is not always possible to identify the founder (Kroll, Walters, & Le, 2007). After these selection steps, the final sample includes 173 entrepreneurial firms (see details in Table1). For each firm, we identify original founders through information provided in the IPO prospectuses. In dealing with entrepreneurial firms with multiple founders, we only choose the main founder, instead of analyzing the whole founding team. The main founder here refers to those who claim to be the leader of the founding team, the major shareholder, or those who are still actively involved in operation work during the time of IPO (e.g. playing the role of CEO/chairman). We choose the main founder since they play a key role in founding and developing the business, who are also more salient in the financing

process and significantly affect the legitimacy of the company.

Table 1 Sampled IPOs by industry and year

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Oil & Gas	0	3	3	0	0	1	0	1	1	0	0	9
Basic Materials	1	2	2	2	0	0	1	0	1	1	2	12
Industrials	4	9	7	5	4	1	6	2	1	1	0	40
Consumer Goods	0	5	0	2	0	0	0	1	0	0	0	8
Health Care	1	7	4	4	2	0	1	0	0	0	0	19
Consumer Services	4	6	14	7	5	0	3	1	1	1	1	43
Telecommunications	1	2	2	2	0	0	0	0	0	0	1	8
Utilities	0	0	0	0	2	0	0	0	0	0	0	2
Financials	3	3	0	1	1	0	0	0	0	0	0	8
Technology	2	5	9	3	0	0	1	0	0	1	3	24
Total	16	42	41	26	14	2	12	5	4	4	7	173

IPO prospectus is used as the major source of information in our coding process. As one of the key registration filing, the prospectus is believed to be a superior source of IPO firm information regarding the quality and potential for the firm, as it contains information for which IPO firm owners/managers can be held legally accountable with regard to the accuracy of the information (Welbourne & Cyr, 1999). IPO related studies have confirmed the efficacy of the prospectus information as a signal (Certo, Daily, & Dalton, 2001; Daily, Certo, Dalton, & Roengpitya, 2003; Martens et al., 2007) in the IPO process.

Dependent and Independent Variables

Our study is targeting at the resource acquisition ability of the entrepreneurial firm via IPO. Therefore, we select *IPO proceeds*, calculated as offer price multiplied by the number of shares sold in the offering, logged transformed, as the dependent variable

(Certo, Holcomb, & Holmes, 2009).

The first and second independent variables of our analysis are industry and functional category spanning of the main founder. We dummy code founders who have worked across industries/functions as 1, and 0 otherwise. We use the resume they present in the prospectus as the coding resource to identify whether they are category spanners or not. We choose the resume in the prospectus, as it conveys a comprehensive and memorable image for founders and the top management team in front of outsiders, providing an initial way for investors to measure their ability and credibility. Also, what they present in the resume is what they highlight and what they think will attract the investors to add value to their stock. Besides, after checking, we find that their resume presented in the prospectus has also been widely spread, such as on their personal homepage (LinkedIn, Facebook, etc.), the company website, investment websites and even in the mass media, which greatly increase its influence. Industry Classification Benchmark (ICB) structure is selected to categorize the founders' industry experience since this framework has been adopted by LSE and most founders' follow this structure to introduce themselves in the resume, which would be more clear and salient than other classification methods. In terms of function categories, we develop function classifications based on the Standard Occupational Classification (SOC) Hierarchy of office of national statistics in UK and the content analysis of our dataset, which includes administration; R&D, technique and engineering; finance; sales and marketing; human resource management; manufacturing and production; legal; others.

To test hypothesis 2, we classified all founders into three groups: 1) *Full specialist*, referring to founders who keep working in both the same industry and function; 2) *Partial specialist*, referring to the founder who either presents the tracking record of

working experience at the same function across industries or at different functions but within the same industry; 3) *Full hybrid*, referring to founder who presents to work across functions in diversified industries. We treated the first group as baseline and dummy coded the other two groups. In order to test the moderating role of VC's involvement, we use the *proportion of venture capital retained equity* to capture the involvement intensive in our analysis.

Control Variables

Based on the past IPO analysis, three levels of control variables are included in our model. At the market level, we use the *MSCI UK index* to control for the total stock and equity performance of the market during the IPO year. At the firm level, we control for the *firm age*, since firms with longer tracking records are suggested to have a higher chance of IPO success (Chang, 2004). We controlled for the level of the firm's risk by calculating the *number of risk factors* presented in the prospectus, which has been proved to be valuable in predicting the price premium in IPO (Daily et al., 2003; Welbourne & Andrews, 1996). Given the industry differences between the entrepreneurial firms, we use dummies to control for the *biotechnology companies* and *information technology companies*, in comparison with the relatively stable and mature industries (Martens et al., 2007). Larger organizations usually have greater access to resources essential for firm survival and profitability (Finkle, 1998), and compared with smaller firms, larger companies present less uncertainty to potential investors. Therefore, we use the total assets, in logged form, as a measure to control for *the size of the company*. And in order to control for the business performance, we calculate the average *turnover growth* of the business within three years before the IPO. Governance parameters also serve as a useful screening and sorting criteria that affect investors' valuation of IPO firm (Filatotchev & Bishop, 2002; Sanders &

Boivie, 2004), therefore, we include *board size* and *board independence* in our regression to control for the managerial ability of the entrepreneurial firm. Besides, *the length of locking period*, in month, is also included, since it not only signals the firm quality but also alleviate moral hazard problem (Brav & Gompers, 2003). Next, we control for the *underwriter prestige*, since the high reputation of advisor may help to reduce the uncertainty of the issue, and therefore increase investors' confidence in the company (Carter & Manaster, 1990). At the individual level, we control for *founders retained equity*, which signals to investors the confidence that entrepreneurs have in the future prospects of the firm. On one hand, investors view high levels of founder ownership as an indication that the goals of firms' managers/owners are aligned with those of potential investors, which may help the company raise fund in the IPO process (Daily et al., 2003); on the other hand, high proportion of founders ownership indicates that the founding group has already held a large amount of resource, and resource acquisition is not the main reason for IPO. Previous studies show that firms controlled by the founder-CEO are structurally distinct in ownership and management characteristics and founder-led firms present a valuable stability to investors, thereby collecting a higher premium of the stock price over book value at IPO (Nelson, 2003). We, therefore, dummy code *founder-CEO* as a control in our model. Meanwhile, we calculate the main founder's *external board positions* as holding in other firms within 5 years before IPO, which obtained from the "Other Directorships" section of the prospectus (Finkle, 1998; Higgi & Gulati, 2003; Bruton, Chahine, & Filatotchev, 2009), since they are not only closely related to the founders' past experience, but also signaling founders' human and social capital and influencing their operation of the company. We next control for *the founder age*, since the older they are, the longer industry experience they had and the more diversified their

experience tended to be.

RESULTS

Descriptive Analysis

From 2002 to 2013, entrepreneurs in our sample raised 8.02 million pounds on average in the AIM market, and the average market value of the business reached to 22.04 million (at offer price). The average age of the IPO companies is 59 months (4.9 years), with 14% of them operating in IT industries and 8% in the biotech sector. At the time of IPO, 56% entrepreneurial firms still appoint the original founder as CEO, with 27.3% equity held by the founding team, suggesting that founders still play key roles at this stage for most entrepreneurial firms. The average age of main founders is 46, who are holding 9 directorships on average in other business at the time of IPO.

Table 2 shows selected statistics that allow for an initial, purely descriptive, assessment of our hypotheses. Panel A concerns the independent and interactive effects of category spanning in the industry and occupational domains. Consistent with Hypotheses 1a and 1b, the average level of resource acquisition (i.e., the log of net IPO proceeds) is higher in subsamples of IPO firms whose founders are industry or occupational specialists compared to those in which founders are industry or occupational hybrids (i.e., 1.528 million versus 1.170 million and 1.639 million versus 1.164 million, respectively). Consistent with Hypothesis 2, moreover, the average level of resource acquisition is higher in the subsample of IPO firms whose founders are fully specialized than that in the subsample of IPO firms whose founders are only partly specialized (i.e., 1.766 million versus 1.320 million), which again is higher than the subsample of IPO firms whose founders are fully hybrid (i.e., 1.320

million versus 1.089 million).

Table 2 Descriptive assessment of hypotheses

Panel A: Effects of category spanning				
Hypothesis	Founder type	Mean[ln(IPO proceeds)]		<i>N</i>
H1a	Industry specialist	1.528		86
	Industry hybrid	1.170		87
H1b	Occupational specialist	1.639		67
	Occupational hybrid	1.164		106
H2	Full specialist	1.766		44
	Part specialist	1.320		65
	Full hybrid	1.089		64

Panel B: Moderating effect of VC retained equity				
Hypothesis	Founder type	Corr[VC retained equity; ln(IPO proceeds)]	Mean[VC retained equity]	<i>N</i>
H3	Full specialist	-0.039	0.166	44
	Part specialist	0.169	0.056	65
	Full hybrid	0.203	0.033	64

Panel B of Table 2 concerns the moderating effect of the share of retained equity by VCs. Consistent with Hypothesis 3, the correlation between VCs retained equity and resource acquisition is lowest and slightly negative in the subsample of IPO firms whose founders are fully specialized, while it becomes progressively stronger as well as positive in subsamples of IPO firms whose founders are, respectively, partly specialized or fully hybrid. Descriptively, therefore, VCs retained equity would appear to act as an offset to the penalty associated with hybridity.

The column to the right of Panel B also provides an indirect indication that VC

ownership may constitute a particularly valuable signal in IPO firms whose founders are fully hybrid. If founder hybridity in industries and occupations creates ambiguity and uncertainty, then VCs should be more careful in taking large ownership positions in IPO firms whose founders are in part or fully hybrid. Data on average retained equity by VCs show exactly that. Among IPO firms with fully specialized founders, the average share of retained equity by VCs is equal to 0.166, while that share decreases to 0.056 in firms with partly specialized founders, and it is as low as 0.033 in those with fully hybrid founders. Such progressive selectivity might be interpreted as an increase in scrutiny befalling IPO firms as founder hybridity increases, even by comparatively well-informed insiders such as VCs. Consistent with Hypothesis 3, this apparent selection process should elevate outsider confidence especially in those firms with fully hybrid founders, where VCs nevertheless chose to retain high levels of equity.

Multivariate Analysis

Although the descriptive statistics in Table 2 are consistent with our hypotheses, we now turn to multivariate regression analysis that allows us to account for a variety of alternative explanations, as such producing a more rigorous assessment of our theory. Table 3 shows OLS estimates of the log of net IPO proceeds. Model 1 examines the set of control variables, while models 2-5 examine Hypotheses 1a, 1b, and 2, i.e., the independent and joint effects of founder category spanning along industry and functional dimensions. Model 6 examines the moderating effect of VC retained equity as proposed in Hypothesis 3. We found some evidence of heteroscedasticity in the residuals and so in all models we report heteroskedasticity-consistent standard errors due to White (White, 1982). Alternative approaches, clustering standard errors by years or industries, generated identical conclusions to the ones deriving from Table 3.

Across the six models, average and maximum variance inflation factors were in the range of 1.33-1.55 and 2.28-2.52, respectively, all well below the commonly accepted threshold of ten (Kennedy, 2003). Thus, multicollinearity appeared unproblematic for our analysis.

Model 1 shows that firms with founder CEOs, larger firms, firms listing more risk factors, and those with larger boards secure more capital at IPO. Consistent with Hypotheses 1a and b, models 2 and 3 show that industry and functional hybridity of founders is associated with lower resource acquisition, all other variables held constant. Model 4 shows that these negative associations remain statistically significant when both independent variables enter the estimation simultaneously. Moreover, the magnitudes of the main effects are similar ($F [1df] = 0.06, p = 0.81$), consistent with the idea that outsider audiences devote comparable attention to both dimensions when evaluating a particular IPO firm. In terms of the magnitude of these main effects, the estimates in model 4 suggest that, compared to IPO firms whose founders are industry specialists, those whose founders are industry hybrids on average secure about 26% less capital (i.e., a multiplicative factor of $\exp[-0.296*1] = 0.74$). Similarly, compared to IPO firms whose founders are functional specialists, those whose founders are functional hybrids on average secure about 30% less capital (i.e., a multiplicative factor of $\exp[-0.363*1] = 0.70$). Thus, not only are the coefficients for founders' industry and functional hybridity statistically significant, both also represent sizeable effects in real terms.

Table 3 Results of linear regression analysis for resource acquisition

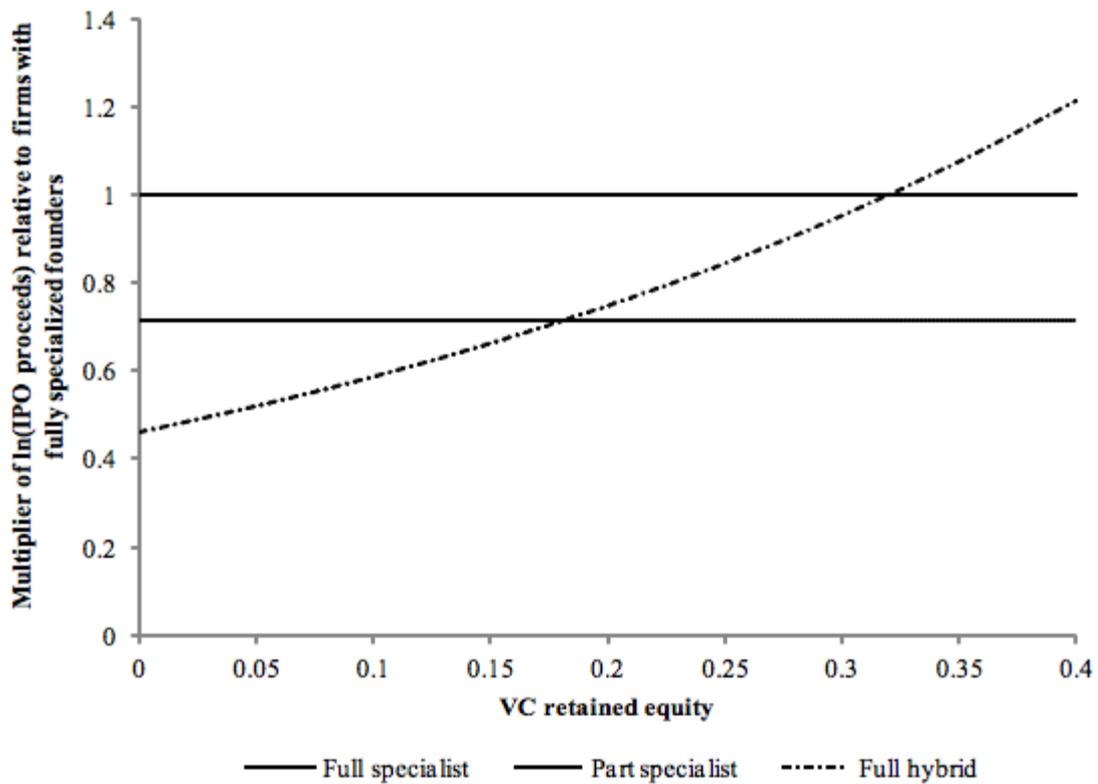
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	ln(IPO proceeds)					
Industry hybrid		-0.361*		-0.296*		
		(0.177)		(0.178)		
Occupational hybrid			-0.428**	-0.363*		
			(0.182)	(0.184)		
Part specialist					-0.253	-0.338+
					(0.232)	(0.258)
Full hybrid					-0.638**	-0.774**
					(0.241)	(0.268)
Part specialist * VC retained equity						0.707
						(1.153)
Full hybrid * VC retained equity						2.418*
						(1.354)
VC retained equity	-0.142	-0.405	-0.468	-0.634	-0.585	-0.857
	(0.818)	(0.852)	(0.833)	(0.864)	(0.863)	(0.918)
VC affiliation	-0.029	-0.055	-0.004	-0.029	-0.037	-0.147
	(0.232)	(0.236)	(0.223)	(0.228)	(0.229)	(0.233)
Founder CEO	0.282+	0.301+	0.398*	0.396*	0.383*	0.348+
	(0.167)	(0.168)	(0.174)	(0.173)	(0.174)	(0.178)
Founder age	0.012	0.010	0.007	0.006	0.006	0.006
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Founder retained equity	-1.537**	-1.674**	-1.621**	-1.721**	-1.735**	-1.736**
	(0.541)	(0.542)	(0.530)	(0.533)	(0.529)	(0.525)
Founder other directorships	0.001	0.002	-0.002	-0.001	-0.000	-0.000
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Firm age	-0.005+	-0.005+	-0.004	-0.004	-0.004	-0.005+
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Firm size	0.226***	0.218***	0.222***	0.216***	0.216***	0.213***
	(0.050)	(0.050)	(0.047)	(0.048)	(0.047)	(0.047)
Firm turnover growth	0.002	0.003+	0.003	0.004+	0.004+	0.003+
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Risk factors	0.050***	0.050***	0.046***	0.046***	0.047***	0.045***
	(0.011)	(0.011)	(0.012)	(0.011)	(0.011)	(0.012)
Locking period	0.034	0.036	0.028	0.030	0.032	0.030
	(0.033)	(0.034)	(0.033)	(0.034)	(0.034)	(0.035)
Prestigious underwriter	-0.082	-0.044	-0.098	-0.064	-0.069	-0.049
	(0.209)	(0.206)	(0.205)	(0.204)	(0.208)	(0.212)
Board independence	0.150	0.139	0.059	0.063	0.092	0.081
	(0.575)	(0.584)	(0.567)	(0.576)	(0.575)	(0.593)
Board size	0.186**	0.191**	0.183**	0.188**	0.191**	0.196**
	(0.067)	(0.065)	(0.066)	(0.065)	(0.065)	(0.066)
MSCI	0.004	0.005	0.001	0.002	0.002	0.002
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Hot IPO market	0.238	0.201	0.241	0.211	0.205	0.199
	(0.186)	(0.191)	(0.183)	(0.188)	(0.187)	(0.187)
Biotechnology	-0.062	-0.164	-0.063	-0.146	-0.159	-0.126
	(0.310)	(0.329)	(0.311)	(0.325)	(0.323)	(0.325)
Information technology	0.037	0.067	0.063	0.084	0.083	0.089
	(0.227)	(0.225)	(0.228)	(0.224)	(0.225)	(0.227)
Constant	-4.389***	-4.019***	-3.618***	-3.431**	-3.518**	-3.319**
	(1.018)	(1.055)	(1.038)	(1.062)	(1.105)	(1.124)
R-squared	0.397	0.415	0.417	0.429	0.429	0.435

N = 173, *** p<.001 ** p<.01 * p<.05 + p<.1, significance tests are one-tailed for predictors; two-tailed for control variables. Heteroskedasticity-robust standard errors are reported in parentheses.

Model 5 shows that IPO firms whose founders are partial specialist have IPO proceeds that are statistically indistinguishable from those whose founders are fully specialized. However, in support of Hypothesis 2, firms whose founders are fully hybrid secure significantly less capital than those whose founders are either part specialist ($F [1df] = 4.40, p = 0.04$) or fully specialized ($t [1df] = -2.64, F [1df] = 6.99, p = 0.009$). In other words, founder hybridity appears particularly problematic when such hybridity occurs simultaneously along both industry and functional dimensions. In real terms, the effect is again substantial. Compared to IPO firms whose founders are fully specialized, those whose founders are fully hybrid on average secure about 47% less capital (i.e., a multiplicative factor of $\exp[-0.638*1] = 0.53$).

Finally, model 6 tests Hypothesis 3, predicting that VCs retained equity acts to offset the penalty associated with full hybridity—i.e., the penalty as predicted in Hypothesis 2 and shown in model 5. The coefficient on the interaction between partial specialist and VCs retained equity is not significantly different from zero, even though the main effect on partial specialist is now marginally significant and negative. The coefficient on the interaction between full hybrid and VCs retained equity is statistically significant and positive, suggesting that VCs retaining more equity has positive effects on the ability of IPO firms to secure capital in those firms whose founders are fully hybrid. In real terms, a one-standard deviation increase in VC retained equity is associated with about a 21% increase in IPO proceeds in firms whose founders are fully hybrid (i.e., a multiplicative factor of $\exp[2.418*0.08] = 1.21$).

Figure 1 Multiplier of ln (IPO proceeds) relative to firms with fully specialized founders



In relation to the results in model 6, a question arises as to when the offsetting role of VCs retained equity is large enough for IPO firms with fully hybrid founders to raise equal or larger amounts of capital than those firms with partly or fully specialized owners. To provide a tentative answer to this question, Figure 1 uses the estimates in model 6 of Table 3 to illustrate the abilities of IPO firms with partly specialized or fully hybrid founders to raise capital relative to those with fully specialized founders, and how these vary across the observed range of VCs retained equity in the subsample of firms (N = 64) whose founders are fully hybrid. At low levels of VCs retained equity, IPO firms with fully hybrid founders on average secure less capital than all others. However, when VCs retained equity surpasses the 0.18 level, which is the 94th percentile, those with fully hybrid founders begin to raise equal or larger amounts of capital than those with partly specialized founders. Moreover, when VCs retained equity rises further and surpasses the 0.32 level, which

is the 98th percentile, IPO firms with fully hybrid founders begin to raise equal or larger amounts of capital than even those with fully specialized founders. Overall, within our estimation sample, although increases in VCs retained equity consistently increase the ability of firms with fully hybrid founders to secure capital relative to other firms, only at very high levels does VCs retained equity fully offset the penalty associated with full hybridity.

CONCLUSION AND DISCUSSION

In this study, we focus on further exploring how category spanners are undervalued by external audiences, and discussing factors that may help category spanners legitimate themselves and reduce the penalty. According to our empirical analysis, when individuals could be grouped by multiple salient category structures, specialized in one dimension of categories would help them to build up a legitimate identity, and thereby may reduce to some extent or even eliminate the punishment generated from the hybridity in other category groups. We next extend the category imperative framework by considering the role of 3rd party in legitimating category spanners and improving their audience appealing. In the past studies, scholars attribute the economic disadvantage of category spanners either to their lower quality across each category they straddling or to the unclear identity leading them more likely to be ignored (Hsu, 2009). An external expert may help the category spanners by solving both the problems. Their expertise may improve audiences' trust over the category spanners' quality in a certain area; also their reputation and prestige may enhance audiences' recognition of the organization, therefore decreasing their likelihood to slip over the spanners' complex image.

Our study confirms the validity of categorical imperative mechanism for the entrepreneur and more importantly further develops its theoretical framework. More

important, our study recognizes the importance of studying broader sets of categorizations and cross-classification effect, rather than simply locating on one dimension of categories (Hsu, 2006; Hsu & Hannan, 2005; Hsu et al., 2009). Indeed, most items in the world are categorized in multiple ways, and the saliency of those categories is similar for audience. Individuals do not have to be specialized in every category dimension in order to develop a clear identity. These finding may have the potential to sensitize scholars to look into the interactions between multiple categories, identities and audiences, and thereby better understand social categorization process.

In terms of entrepreneurial resource acquisition studies, as an important stage for entrepreneurs to exploit entrepreneurial opportunities and expand the business, considerable effort has been made to explore the factors that contribute to ventures acquiring external resources (Shane, 2003; Brau & Fawcett, 2006). Our analysis supports the argument that founders, as the initial architects of the companies' structure and strategy, significantly influence companies' resource acquisition ability in IPO (Nelson, 2003; 2007; Chahine et al., 2011). Moreover, we further explore the way how different types of founders influence the external resource acquisition performance. Our findings suggest that the strategic hybridization or diversity may be advantageous in some conditions; however, a clear and constant founder identity is still highly recommended for legitimating the business and attracting investors in IPO. Besides, cultural entrepreneurship research has emphasized the role of organizational identity in the resource acquisition process (Lounsbury & Glynn, 2001; Navis & Glynn, 2011; Wry, Lounsbury, & Glynn, 2011; Zhao et al., 2013), which suggests start-ups to convey an identity that conforms to a recognized collective identity category. Our findings further extend their framework by highlighting the importance of founder identity in constructing the whole organization image and also by pointing

out that organizations could build up a legitimate distinctive identity through specializing in one category dimension, while diversified in other groups of categories (Navis & Glynn, 2011; Durand & Kremp, 2016).

In practice, our study provides a valuable suggestion to the potential entrepreneurs, who are willing to get their business list in the open market. As an entrepreneur, diversified experience may benefit you in the founding process of the business, and the broad skills and social ties may help to develop the business and get survival in the highly competitive market (Lazear, 2004, 2005). However, when facing to audiences, such as investors and customers, it's better for the entrepreneur to highlight the category he is specialized in and build up a clear identity for both himself/herself and the company. Otherwise, the hybrid and unclear founder identity may create an obstacle, which hinders him and his company to be recognized and evaluated by investors and the market. Our work also suggests Jack-of-all-trades, who are totally hybrid across multiple categories, that getting support from outside experts would be a good strategy to reduce the penalty of their hybridization.

Despite the contribution of our findings, there are still limitations to our analysis. Although our dataset spreads 12 years and includes most industries in the UK, our focus on IPO firms may also bring into question the generalizability of our findings. Indeed, only a small portion of entrepreneurial firms are eligible to be list in the open market, most of them need to raise money through other channels, such as from business angels, venture capitalists or borrowing from the bank. Whether the category imperative mechanism is also valid in other resource acquisition process should be further discussed and tested. Also, for some entrepreneurs who are famous before IPO, even though they have straddled multiple categories, they would still be recognized by investors. Whether a large amount of information about them in the open market

may weaken or strengthen the influence of categorization, is worth to be discussed in future studies. Furthermore, we only focus on the effect of founders' category-straddling behavior in the resource acquisition and do not include the information that whether the firm is specialist or generalist. Since they may jointly shape audience perceptions, the relationship of category-straddling behavior between founder and entrepreneurial firm, may also influence investors' evaluation and thereby influence their resource acquisition. Future studies should discuss such interaction, as well as the audience response. Another limitation we should point out is that we don't consider the influence of heterogeneity among audience in our study. As the differences in tastes and expectations of audiences may strongly influence their cognitive process and evaluation, how different types of audiences responding to the hybridity need to be further discussed in future studies (Wry, Lounsbury, & Jennings, 2014; Paoletta & Durand, 2015).

CHAPTER 3 SHOULD I STAY OR SHOULD I GO? POWER STRUCTURE AND FOUNDERS' EXIT SOON AFTER AN IPO

ABSTRACT

We study the founders' decision to exit the venture they created soon after an initial public offering (IPO). Specifically, we distinguish between three exit options: founders that exit financially, selling all their shares but remain as employees; founders that exit managerially, leaving the top management team and the board of directors but keeping their ownership; and founders that exit completely. What factors drive founders' different decision making of the exit routes after IPO? To answer the question, we adopt power theory (French & Raven, 1959; Finkelstein & Hambrick, 1996) to explain the variance in founders' exit choices after an IPO. Our core thesis is that founders with reduced power during the turbulent time of the IPO will be more likely to exit the firm they created soon after it goes public. We study a novel, hand-collected dataset of 313 founders from the total population of 177 entrepreneurial IPOs on the London Stock Exchange (LSE) between 2002 and 2010. We find that power structure is associated with founders' total exit but does not equally well explain partial exits (i.e. financial or managerial). Moreover, we find that the effect of power on total exit is moderated by the type of capital market in which the IPO takes place [main market of the LSE versus Alternative Investment Market (AIM)].

INTRODUCTION

The initial public offering (IPO) is an important event in the lifecycle of an entrepreneurial venture which entails crucial decisions for both entrepreneurs and investors (Bruton, Chahine & Filatotchev, 2009). The finance literature portrays the IPO as an important financing mechanism enabling the company to achieve growth.

Private firms that aim to grow and expand, ultimately go public to finance their investments (Bruton et al., 2009; Jain & Kini, 1999). At the same time, the entrepreneurship literature often considers the IPO as the ultimate ‘dream-exit’ (Baron & Shane, 2007). Once the company has been listed in the public market, there is an opportunity for initial investors and also founders to sell all or part of their shareholdings and leave the company (Prasad, Vozikis, Bruton, & Merikas, 1995). Most studies that consider the IPO as a potential exit strategy, focus on investors’ exit and are based on industry or company-level data (Bayar & Chemmanur, 2012; Cumming, Fleming, & Schwienbacher, 2006). Very little is known about when or why founders exit via an IPO (DeTienne & Cardon, 2012). Actually, entrepreneurial exit, which describes the process that entrepreneurs leave the firms they helped to create (DeTienne, 2010), is a major event in the entrepreneurial process from different perspective. For founders, exit represents the time of harvesting, when they see the value of all their hard work invested into the business. For the firm, the founders’ exit may represent a change in direction and even in organizational identity, which may also result in discontinuation or closure. For the economy, entrepreneurial exit allows entrepreneurs to free themselves from management and focus on new opportunities, which can further stimulate economic growth (Mason & Harrison, 2006; DeTienne, 2010). The phenomenon of entrepreneurial exit has attracted increasing attention in recent literature (Boeker & Karichalil, 2002; DeTienne, 2010; DeTienne & Cardon, 2012; DeTienne, McKelvie & Chandler, 2015).

Our study aims to explore the factors that drive founders to exit soon after an IPO, utilizing the theory of power (Finkelstein, 1992; Finkelstein & Hambrick, 1996; Nakauchi & Wiersema, 2015). In general, the IPO represents a time of change for the venture in terms of both operating control and business direction (Chahine & Goergen,

2011; Pagano, Panetta, & Zingales, 1998). Our main thesis is that founders who remain with less power at the time of the IPO are more likely to exit their venture at the first opportunity. More specifically, we argue that lack of power decreases the founder's interest in the business, and can lead to voluntary exit. In addition, lack of power reduces control which can also lead to a push towards exit; founders can be encouraged to leave by investors in order to hire professional managers.

We build on early exploratory work by Boeker and Karichalil (2002) who test the determinants of founders' exit on a sample of privately owned entrepreneurial firms. While this study explores a broad range of possible exit predictors, we adopt a single theoretical frame - the founder's power structure (Finkelstein, 1992) – which fits our specific context of the IPO. Our theoretical focus on power is inspired also by studies on the effect of power structure on CEO succession (Boeker & Karichalil, 2002; Shen & Cannella, 2002; Zhang, 2006). We note though that founder's exit differs from CEO succession, because founders are not just quitting a job; they usually have a major equity stake and an emotional attachment to their ventures. Moreover, unlike CEOs, IPO-founders typically make the exit decision during a period of growth, and for them exit totally from the venture is a voluntary decision; founders can be removed from the firm's management but they cannot be forced to sell their shares. Founders also have the option of partial exit (reducing involvement while retaining some ownership and/or control), as we explain below.

We distinguish three exit choices connected to the IPO event. Founders may exit financially by selling all their shares to become employees of the venture; they may exit managerially, leaving the top management team and the board of directors but holding on to their shares; or they may choose to exit the venture totally (managerially and financially) by leaving the company completely. We study a novel,

hand-collected dataset of 313 founders from the total population of 177 first time listings of entrepreneurial firms on the main market of the London Stock Exchange and the Alternative Investment Market between 2002 and 2010. Binary and multinomial regression analyses are used to explore whether founders' power structure is associated with the likelihood of exit and the specific exit choice. To rule out alternative explanations, we control for other personal, firm-level and market-level factors that might influence the founders' choice to quit their firm.

Consistent with our main thesis, we find that founders with higher power at the time of IPO are less likely soon after (within 24 months from the end of their lock-up agreement) to exit completely from the venture they created. We find also that the relationship between power structure and total exit is moderated by the type of capital market in which the IPO takes place (LSE main market versus AIM). In other words, the relationship between founders' power and total exit is contingent on the conditions prevailing in the institutional environment (in our case the stock exchange). Subsequently, we find that while power theory can explain total exit, it does not equally well explain partial exits (managerial and financial). Managerial exit (i.e. quitting management but retaining ownership) is associated with age and with the founder being a serial entrepreneur, indicating a lifestyle motivation. In turn, whether the IPO takes place in a 'hot period' is the main independent variable associated with financial exit (i.e. selling the shares but remaining on the top management team), indicating a financial motivation.

Overall, our study associates founders' power at IPO with their likelihood of exiting the venture soon after IPO. Our findings indicate that multiple dimensions of founders' power at IPO influence their exit options. We contribute to the literature on entrepreneurial exits (DeTienne & Cardon, 2012; Wennberg, Wiklund, DeTienne, &

Cardon, 2010) by introducing a new theoretical angle (power) to explain an important but empirically overlooked phenomenon, namely founders' exit soon after the IPO. We contribute also to the power-succession literature (Boeker, 2002; Shen & Cannella, 2002; Zhang, 2006) by extending its application to the interesting and novel context of entrepreneurial exit. We find support for the thesis that when people lose power over their project they are more likely to quit totally, terminating all association with their project. Interestingly, we find that this general thesis holds even in 'extreme' contexts of founders, namely actors who (i) initiated the project and therefore are emotionally attached to it, (ii) typically take the exit decision under positive-performance conditions, and (iii) cannot be forced out completely since selling shares is a voluntary act. We find also that lack of power does not have an equally strong association with partial withdrawal from one's own project. Partial withdrawal is related more to the actors' life preferences and choices than to their losing control of their project.

THEORY AND HYPOTHESIS DEVELOPMENT

The IPO as an Exit Route

The phenomenon of initial public offering has been researched extensively in both the finance and management disciplines. The finance literature deals mostly with the process and mechanisms of going public (Habib & Ljungqvist, 2001; Huyghebaert & Van Hulle, 2006) while the management literature investigates the managerial implications of going public, such as CEO change *before the IPO* (Jain & Tabak, 2008) and venture capital exit (Lin & Smith, 1998). Pre-IPO CEO-succession is seen as a strategic choice forced top-down from powerful investors who may not have confidence in the founder's ability to continue to grow the company further (Jain & Tabak, 2008; Wasserman, 2003). Interestingly, companies where the founders stay on

the board as CEO at the time of the IPO tend to achieve a better valuation (Certo, Covin, Daily, & Dalton, 2001; Nelson, 2003).

In general, the literature on IPO as a growth-financing event, identifies predictors of IPO success and performance; to date, there are no studies that examine the IPO through an entrepreneurial lens as a route to entrepreneurial exit (DeTienne & Cardon, 2012: p.354). Since the IPO creates a liquid market for stock, entrepreneurs have an opportunity to exit from ownership. Moreover, in the growth phase after the IPO, founders might be replaced voluntarily or involuntarily, by professional managers. In this paper, we try to explain entrepreneurial exit soon after an IPO. We depart from the observation that the IPO event is a period of turmoil and negotiation which often changes the balance of power among the stakeholders (Fischer & Pollock, 2004). Founders can end up with limited power over other stakeholders such as investors, professional managers, and external board members. We submit that this power shift at the time of going public is a mechanism that might help to explain the phenomenon of entrepreneurial exit soon after the IPO.

Power and Exit

Finkelstein (1992) adopts the French and Raven's (1959) original concept of power and adapts it to empirical study of top management teams. Power is the capacity of individual actors to exert their will (Hickson, Hinings, Lee, Schneck, & Pennings, 1971; Pfeffer & Pfeffer, 1981). The power structure of executives has been shown to affect strategic decisions, organizational processes, and performance outcomes (Child, 1972; Eisenhardt & Bourgeois, 1988; Finkelstein, 1992; Finkelstein & Hambrick, 1996; Nakauchi & Wiersema, 2015). In particular, research shows that the greater the power of executives the lower the likelihood of their dismissal (Allen & Panian, 1982; Boeker, 1992; Ocasio, 1994; Weisbach, 1988). However, the literature focuses on the

effects of power on CEO dismissal in mature companies. Few studies (with the notable exception of the exploratory study by Boeker & Karichalil, 2002) examine how power structure might influence the founders' decision to exit from the entrepreneurial firm that *they* set up.

Founders' exit is an interesting and novel context for the theory of power, and for multiple reasons is a different phenomenon from CEO dismissal. Firstly, founders have a higher level of attachment to a company they have created than do professional managers who are hired to run it. Entrepreneurs also have greater need than employed managers for control over their firms (Wasserman, 2003). Moreover, the effect of power structure on CEO dismissal is usually considered under conditions of poor firm-performance (Kesner & Sebor, 1994; Shen & Cannella, 2002); whether power structure can explain founder exit during the growth period just after an IPO has been under-explored. In addition, the CEO succession literature mostly considers exit as involuntary, i.e. a CEO is dismissed by the board to be replaced by professional managers (Wasserman, 2003; Jain & Tabak, 2008). Our main dependent variable is founders' total exit, which by definition, is a voluntary decision. While exit from management can also be forced on founders, simultaneous exit from ownership is voluntary.

In general, in being both the owner and manager gives founders more exit options than available to hired executives. Whereas top managers of mature companies hold a small number of shares acquired as part of their employment agreements, founders typically own a substantial proportion of the firm at the time of IPO (Wasserman, 2003). Thus, founders can partially-exit financially (selling their shares but remaining on top management), partially-exit managerially (keeping the shareholding but quitting the board and the top management team) or exit completely (total exit). The

current literature on the effects of power on managerial exit does not consider the distinction between financial and managerial exit, or the concept of partial exit.

Founders' Power Dimensions and Total Exit Soon after IPO

In the following section, we establish theoretical links between the dimensions of founders' power (structural, ownership, expertise and prestige power) and founders' total exit from the business. Founder's total exit involves cutting all ties with the firm (managerial and financial), and therefore, represents the most 'clean' exit route.

Structural Power refers to the power based on formal organizational structure and hierarchical authority (Brass, 1984; Hambrick, 1981). In the context of a venture going for an IPO, we submit that the CEO and the board chair have higher structural power relative to other managers (Finkelstein, 1992). The CEO is the top executive, responsible for the strategy and direction of the venture (Boeker & Karichalil, 2002). Similarly, the chair of the board can affect the venture by influencing the board of directors which is the ultimate decision-making body and represents the shareholders (Harrison, Torres, & Kukalis, 1988). Founders with high structural power at IPO (holding the positions of the CEO and/or chair of the board) have the opportunity to steer the company towards their vision which creates an incentive for them to stay. Founders with high structural power (CEO or board chair) play a central role in the company's decision making, and therefore, it will be harder for investors to encourage them to leave and less likely.

Ownership power derives from the founders' proportional shareholding (Finkelstein, 1992). Ownership helps founders to safeguard their managerial positions in the public company; founders with large shareholdings carry a lot of weight on the board, and can influence the important decisions such as potential founder dismissal. Also, investors often feel comfortable with founders-leaders with a large proportion of

the firm's shares since it means their interests are aligned; founders with substantial ownership are more incentivized to strive for eventual success of the venture, and therefore, run less risk of being encouraged to leave by investors.

Expert power arises from the ability of founders to deal with environmental contingencies and contribute to the success of their companies (Crozier, 1964; Hambrick, 1981; Hickson et al, 1971; Mintzberg, 1983; Tushman & Romanelli, 1983). Whether founders have the expertise to run a publicly traded enterprise can influence their choice to stay rather than exit after the IPO. An IPO changes the operating requirements introducing rules, such as disclosure of financial and business information (Fischer & Pollock, 2004; Price Waterhouse, 1995), and can transform the firm's control and direction (Pagano, Panetta, & Zingales, 1998). Founders with limited expertise may feel less comfortable with managing a 'grown-up' venture, and may decide to exit voluntarily, or may lose the trust of the investors and receive pressure to leave. In contrast, founders with higher levels of expertise may feel confident of their ability to deal with the change and the company's expansion. More specifically, if a founder is the inventor or main developer of the product he or she will enjoy special technical status in the company, making their replacement difficult. Industry experience is another executive characteristic usually linked to expert power (Datta, Guthrie, & Rajagopalan, 2002; Haynes & Hillman, 2010). Founders with more experience in the specific industry have better business and resource networks, are better equipped to steer the company through difficulties, and are considered more highly by the board and by investors (Bach & Smith, 2007; Cooper, Gimeno-Gascon, & Woo, 1994; Pennings, Lee, & Van Witteloostuijn, 1998); therefore, they are less likely to exit.

Prestige power derives from people's status (prestige), which influences others'

perceptions of their importance (Dalton, Barnes, & Zaleznik, 1968; Finkelstein, 1992). We expect that founders' prestige power is related to their decision to exit their venture. Prestige enhances founders' credibility and makes them legitimate leaders of the company (D'Aveni, 1990). Having links with prestige-enhancing external institutions (such as company boards and the media) helps founders to understand their environment and become more confident leaders. Moreover, high prestige founders benefit investors because they improve the market status of the company. For these reasons, high-prestige founders will be less likely to exit the company voluntarily, or be pressured to leave by investors. Founders can enhance their prestige power by participation in the boards of directors of other firms which signals that they belong to a renowned managerial elite. External board positions give the founder access to powerful external contacts who may provide information valuable to the founder's own firm (Tushman & Romanelli, 1983). Another way for entrepreneurs to acquire prestige power is to gain popularity through the media. High profile founders become firm figureheads. This important role decreases the possibility they will drop out or be replaced.

Based on the above arguments about the relationship between various dimensions of power and total exit of founders we propose a broad hypothesis which includes four sub-hypotheses:

Hypothesis 1: The larger the amount of power held by a founder at the time of the IPO, in terms of a) structure, b) ownership, c) prestige, and d) expertise, the lower the likelihood that he or she will exit from the venture soon after the IPO.

The Moderating Role of the Conditions of the Institutional Environment: Main versus Alternative Investments Market on the LSE

We propose that the institutional environment in which the IPO takes place moderates the relationship between founders' power and their choice to exit soon after

IPO. We focus on the type of stock market as a tangible element creating variance in the institutional environment. The main market of the London Stock Exchange differs from the Alternative Investment Market in three important ways related to our phenomenon of founders' exit. IPO firms in the main-market are more mature, face more regulation, and distribute fewer shares to a larger number of public investors than their counterparts in the AIM (Gerakos, Lang, & Maffett, 2011). We explain the impact of these differences in the succeeding paragraphs.

Entrepreneurial firms listed in the main (LSE) market are usually larger (more total assets and employees) and older compared to firms in the AIM market. Hambrick and Crozier (1985) showed that founders of companies that developed beyond their start-up stage feel greater pressure and experience more difficulty in leading their companies. This pressure on founders-leaders can be exacerbated by the fact that the main market at LSE is a more regulated and less flexible environment in which to operate compared with the AIM. Leaders in the main market face more rules and constraints on management. For example, financial reporting is more stringent, visible and pressing for companies listed on the main market, and is closely monitored by financial analysts and investors (Gerakos, Lang, & Maffett, 2011). Moreover, founders-leaders in the main market typically need to report to larger boards that include more outsiders (Mallin & Ow-Yong, 1998, 2012). Such regulation and formalization in the institutional environment reduces the founders' freedom and autonomy to make decisions, even if they are the CEO or board chair. Thus, structural power will have less influence on their behavior. We expect that operating in the main market will moderate the aforementioned association between the structural power of founders and their decision to exit their firms totally. Therefore, we hypothesize that:

Hypothesis 2: Going public in the main market of the London Stock Exchange (as

opposed to the AIM market) diminishes the negative association between a founder's structural power (i.e. being a CEO or board chair) and the likelihood that he or she will exit totally from the venture soon after the IPO.

Another important difference between the main market and the AIM is the composition of investors. Most AIM-listed companies are early-stage start-ups which are risky for unsophisticated public investors. As a consequence, the AIM market is composed largely of experienced institutional investors and wealthy individuals (Mendoza, 2008) who buy larger numbers of shares compared to public investors trading in the main market. Concentration of investor shares in a small number of players represents a challenge to the founder's ownership power; Investors with concentrated ownership can dominate decision making, and thus, moderate the effect of founders' ownership power on organizational behavior (including the decision to exit). In contrast, founders' ownership power is challenged less in a situation of a large number of minority shareholders and fragmented investors which is more typical of the main market.

Moreover, as discussed above, founders' prestige-power plays an important role in legitimizing the company in the eyes of public investors (Chahine, Filatotchev, & Zahra, 2011), and thus reduces the likelihood of founders' exit. However, this association may be weakened if the company is financed by more experienced and more professional institutional investors, i.e. if the IPO takes place on the AIM market. More sophisticated investors are influenced less by social evaluation signals such as prestige, and focus more on rational evaluations of the venture (Joe, Louis, & Robinson, 2009). In contrast, prestigious founders will be more important in the eyes of less sophisticated public investors in the main market, making the relationship between prestige and behavior more prominent. Based on the above mechanisms, we

hypothesize that:

Hypothesis 3: Going public in the main London Stock Exchange market amplifies the negative association between a founder's ownership power (proportion of shareholding) and prestige power (directorships and media coverage), and the likelihood that he or she will exit the venture totally after an IPO.

Founders' Power and Partial Exit

As mentioned earlier, some entrepreneurs may choose partial exit from the venture after an IPO, giving up some of their involvement but retaining an association with the company. Specifically, founders can sell their shares but remain as a manager (financial exit), or resign from their managerial position but keep their shares (managerial exit).

We argue that the relationship between founders' power at IPO and their choice of partial exit soon after the IPO is more complex, and generally weaker than the relationship between founders' power with total exit. When actors feel frustration at becoming peripheral or marginalized, they will disassociate completely from the project; in simple terms, they want to "know nothing about it", and exit totally. In the case of partial exit, this is probably not a matter of frustration over loss of power and reduced influence over the project.

We argue that partial exit might be more of a personal decision to reduce involvement in one aspect of the project; in our context either the equity or the managing aspects of the business. In this case, the actors are happy and proud to be part of the project but in a more limited capacity better aligned to their personal circumstances and preferences. For example, founders who exit financially from the business, may be driven mostly by financial reasons; they want to cash in on their investment via the IPO. Founders who exit managerially might simply have tired of

leading and running the business but might remain excited about its future prospects and potential. Therefore, in the case of a partial exit compared to total exit lack of power is likely to have a smaller association with the exit decision. We formally hypothesize that:

Hypothesis 4: The relationship between founders' power at IPO and exit after the IPO is weaker in the case of partial exit (either financial or managerial) than in the case of total exit.

METHODS

Data and Sample

We started with an initial sample of all UK companies that completed an IPO between 2002 and 2010 on the main market of the LSE market and the AIM market. We excluded from the list cases of re-admission and transfer from the AIM to the main market. We also excluded investment trust IPOs since these organizations have very specific governance characteristics and it can be difficult to identify the founder(s) (Chahine, Filatotchev, & Wright, 2007). In addition, we excluded IPOs representing de-mergers, equity carve-outs, reverse takeovers and equity reorganizations. We do not consider investment and acquisition vehicles since the original founders are no longer part of the companies they created. Since our research is focused on entrepreneurial exits, we excluded firms incorporated more than ten years before the IPO in order to ensure that the firms in our sample were still in the young, entrepreneurial phase of their life cycle (Carpenter, Pollock, & Leary, 2003; Eisenhardt & Schoonhoven, 1990; Talaulicar, Grundei, & Werder, 2005). Using company prospectuses, we identified and eliminated companies that appeared to be subsidiaries and spin-offs where it is not always possible to identify a founder or founding team (Jain & Kini, 1999; Kroll, Walters, & Le, 2007). All of this resulted in

a final sample of 177 entrepreneurial firms and 313 founders. For each firm, we identified the original founders through information provided in the IPO prospectus. We used company websites and founders' personal websites to complete the dataset.

Dependent Variables

The dependent variable is a founder's exit from the listed company within 24 months after the lock up period. When a company's shares are offered at IPO, insiders enter a lock up agreement. This is a contractual agreement between the existing shareholders and the underwriter that the shareholders will not sell a certain percentage of their shares for a specified period of time. UK lock-up agreements vary between 6 and 24 months, and founders are not allowed to exit the firm within that time interval (Espenlaub, Goergen, & Khurshed, 2001). We choose 24 months after the end of the lock-up period as a cut-off point to measure 'founder exit soon after an IPO'. During the first 12 months following the end of lock up period, insiders can sell their shares only to the underwriter and on the open market. Thus, we assume that within 24 months after the lock-up period a founder realistically could sell all of his or her shares using the IPO as an exit route. A longer period would make the exit remote from the IPO which is our focal anchor event.

Entrepreneurs can exit the company financially, managerially or totally. We define *total exit* as cases of founders who leave the top management team and the board of directors and hold less than a 3% shareholding 24 months after the lock-up period. The 3% shareholding was the cut-off point because of the nature of our data; founders that do not work for the company do not usually appear in the annual report if their shareholding is under 3% (considered negligible by the investment community). We define as *managerial exits* cases of founders who leave the top management team (executives and senior managers as presented in the prospectus) and the board of

directors but hold 3% or more of shareholding, 24 months after the lock up period. *Financial exit* is defined as cases of founders who sell their shareholding within 24 months of the lock up period but remain on the top management team or the board of directors.

Independent Variables

The independent variables in our study are measureable proxies for different dimensions of the power held by founders at the time of the IPO. Most of the information for the coding was provided by the IPO prospectuses. To capture structural power, founders who were the *CEO or Chair of the board* at IPO were dummy coded 1 and 0 otherwise. *Ownership* power was approximated by the percentage of shares owned by the founder at IPO. To capture expertise power, we used two proxies: a) founders who were *the inventor or the main developer* of the product were dummy coded 1 and 0 otherwise; b) we measured relevant *industry experience* as the number of years that the founder worked in an industry related to the focal IPO firm, before founding his or her firm. Founders' experience was based on the resumes in prospectuses, corroborated by information from company websites, and social media (e.g. LinkedIn). The relevance of industry experience was judged based on the super sector of the industry classification benchmark (ICB). We considered as relevant, industry experience in the same industry ICB super sector as the IPO venture (19 super sectors in total). Founder's prestige power was captured by two proxies: a) *number of directorships* in other firms during the five years before the IPO, obtained from the IPO prospectus (Finkle, 1998; Higgins & Gulati, 2003); b) *media coverage*, which we calculated as the number of news items mentioning the founder together with his or her company. News data were obtained from the Nexis UK database which includes coverage in national and regional newspapers.

Moderating Variable

In addition to our independent variables, our theoretical framework includes a moderator. We dummy coded entrepreneurial IPOs listed on the LSE main market as 1, and those listed on the AIM as 0 in order to explore how the conditions in the institutional environment influence the relationship between founders' power and total exit.

Control Variables

To rule out alternative explanations for founders' exit decision, we included several control variables at three levels of analysis - individual, firm, and the industry and economy. At the individual level, *founder's age* can be a determinant of founder exit. As founders get older, their energy levels may decline or they may simply want to retire which might increase the likelihood of exit. Since feelings of attachment to the company may differ between men and women (Rosenstein & Horowitz, 1996) we control for founders' gender coding *female entrepreneurs* as 1, and male as 0. In addition, compared to other types of founders, serial entrepreneurs usually are more passionate about the initial founding process, and are familiar with selling their firm (Cardon, Wincent, Singh, & Drnovsek, 2009). We dummy coded *serial entrepreneurs* (founders who had exited from earlier companies) as 1, and 0 otherwise. Finally, within a founding team, other founders' power may decrease the focal founder's likelihood to exit if the team is united, or might increase the focal founder's likelihood to exit if the team is divided; to take account of these possibilities we control for the share of *ownership of other founders* at IPO.

We control also for the characteristics of the entrepreneurial firm. As the firm develops, founders may become less qualified to manage it which increases the probability of founders' exit (Boeker & Karichalil, 2002; Flamholtz, 1990). Therefore, we control for *firm age* measured as the number of months since incorporation of the

company, and firm size measured as the *total assets* at IPO. The performance of the firm, measured by *annualized turnover growth* in the three years before the IPO was also included in our models; increased financial performance might induce the founder to stay. Additionally, companies that received more private financing before the IPO often face higher pressure from their institutional investors to replace the original founders by a professional management team (Wasserman, 2003). Therefore, we include the proportion of *ownership by institutional investors* as a control variable. Moreover, *board size* might have an influence on the entrepreneur's choice. On the one hand, larger boards include broader expertise which decreases the impact of individual founders, and therefore could facilitate exit (Boeker & Karichalil, 2002); on the other hand, larger boards with broader expertise could benefit performance which might encourage founders to stay on with the firm. *Length of lock up period* in months is controlled for since it might influence the founders' decision to exit. We control also for *stock performance* measured by the annualized holding period return (HPR) between the time of IPO and 24 months after the lock-up period. We include it in our analysis to rule out the case of founder exit being driven by pecuniary benefits following an IPO (Jain & Kini, 1999).

We control next for the influence of the industry and the broader economy. Compared to traditional sectors, firms in growing and fast changing industries need to adjust their top management teams' capabilities more frequently (Virany, Tushman, & Romanelli, 1992), which might increase the possibility of founder exit after IPO. We dummy coded firms operating in *information technology* (IT) and *biotechnology* as 1 and 0 otherwise, since during the period of analysis those were rapidly growing and changing industries. Finally, we control for *hot period* effects in terms of IPO volume; we dummy coded firms which went public during 2004 and 2005 as 1 and 0 otherwise,

because the IPO volume was 52% higher in those two years than in the rest of the data period.

Method of Analysis

We employ a binary probit model to test the main association between founders' power and total exit after IPO, and to explore the moderating role of stock market type. We then use multinomial logit regression to explore the factors associated with founders' partial exit, based on three categorical variables of financial exit, managerial exit and total exit as the dependent variables. This model compares the estimates for partial exits and total exit relative to staying in the business. In our sample, about 65% of founders were part of a founding team, and therefore share the same data for firm and industry/economy-level control variables with their business partners. To ensure valid statistical inferences, we apply a robust clustered standard errors estimation process to control for heteroskedasticity caused by data clustered by firm (Kennedy, 2003).

RESULTS

Table 4 shows that 25.2% of founders exited totally from the business within 24 months after lock-up period, 9.9% left its management but retained ownership, and 5.4% of them sold all of their shares but continued to work in the company.

The descriptive statistics and pair wise correlations are presented in table 5. The average age of the 313 entrepreneurs in our dataset was 46.3 years, and 6.7% were female. The average ownership held by each founder was 15.8% at the time of the IPO. At IPO, 41.2% of founders held the position of the CEO or board chair.

On average, founders had 13.4 years of work-experience in a related industry before founding the focal company. 13.7% of founders were the inventors or main developers of the firm's product; 24% of founders started the company on their own

and 76% were part of a founding team. On average, founders had served on 7.3 boards (other than the listed company) within the five years prior to the IPO. 29.4% of founders were serial entrepreneurs. And 6% of the entrepreneurs listed their firms first time in the main market of London Stock Exchange.

Table 4 Entrepreneurial Exit Routes via IPO

	Selling out shares		
Leaving TMT		<i>No</i>	<i>Yes</i>
No		Continuation (59.4%)	Financial exit (5.4%)
Yes		Managerial exit (9.9%)	Total exit (25.2%)

Table 5 Correlation Matrix

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1 founders totally exit the business	0.25	0.44																							
2 founders financially exit the business	0.05	0.23	-0.14**																						
3 founders managerially exit the business	0.10	0.30	-0.19***	-0.08																					
4 founder CEO/chairman	0.41	0.49	-0.11 [†]	-0.03	-0.06																				
5 ownership at IPO	0.16	0.15	-0.20***	0.06	-0.02	0.28***																			
6 inventor/main product developer	0.14	0.34	-0.17**	0.11*	-0.04	-0.14**	-0.06																		
7 experience in related industry	13.39	9.83	-0.18**	-0.03	0.02	0.06	-0.02	0.10 [†]																	
8 directorships in other business	7.31	9.39	-0.11*	0.03	-0.03	0.22***	0.10 [†]	-0.22***	-0.05																
9 news mentioned the founder before IPO ^a	1.44	1.21	-0.08	-0.12*	-0.03	0.25***	-0.01	0.03	-0.05	0.04															
10 ownerships held by other founders	0.14	0.14	-0.12*	-0.07	0.09	-0.24***	-0.08	-0.13*	-0.07	0.04	-0.05														
11 serial entrepreneur	0.29	0.46	0.03	-0.03	0.14**	0.21***	0.11*	-0.14*	0.00	0.17**	0.00	-0.02													
12 the age of founder	46.32	8.66	0.07	-0.11*	0.09	-0.00	-0.23***	0.11*	0.30***	0.07	0.03	-0.03	0.13*												
13 female entrepreneur	0.07	0.25	-0.04	-0.06	0.08	-0.14**	-0.05	0.08	-0.06	-0.05	0.02	0.12*	-0.06	-0.06											
14 the size of the board	5.80	1.60	-0.13*	-0.09 [†]	0.14*	-0.10	-0.23***	0.02	-0.01	0.02	0.20***	0.14**	-0.06	0.08	0.04										
15 ownership holding by institutional investors	0.23	0.22	0.02	0.05	-0.08	-0.05	-0.44***	0.28***	0.13*	-0.16**	0.07	-0.37***	-0.13*	0.14**	-0.05	0.15**									
16 total assets of the business ^b	14.61	2.10	-0.15**	-0.06	0.06	0.01	-0.13*	-0.14*	0.24***	-0.02	0.18**	0.05	-0.06	0.05	-0.03	0.25***	0.26***								
17 turnover growth within 3 years before IPO	2.94	17.46	-0.09	-0.03	0.00	0.05	0.10 [†]	-0.01	-0.04	-0.01	0.00	-0.01	0.02	-0.08	0.01	-0.05	-0.04	0.03							
18 firm age	56.08	32.38	-0.07	-0.01	-0.02	0.02	0.11*	-0.08	0.13*	-0.06	0.23***	-0.09	-0.13*	0.04	-0.00	0.11 [†]	-0.02	0.39***	-0.01						
19 annualized holding period return	-0.12	0.44	-0.14**	-0.09	-0.06	0.04	-0.02	-0.02	0.08	-0.01	0.08	0.14*	-0.05	0.07	-0.00	0.09	0.05	0.27***	0.02	0.12*					
20 hi-tech firm	0.12	0.33	-0.02	0.12*	0.10 [†]	0.02	0.13*	-0.04	-0.01	-0.02	-0.08	-0.15**	0.03	-0.09 [†]	-0.02	-0.06	0.04	-0.03	-0.04	0.01 [†]	-0.05				
21 length of locking period	13.09	3.72	-0.01	0.07	-0.09	0.01	-0.03	0.19***	-0.04	-0.07	0.15**	0.04	-0.04	0.04	0.06	-0.06	-0.01	-0.19***	-0.03	-0.07	-0.04	-0.11 [†]			
22 IPO in the hot period	0.52	0.50	0.04	0.15**	-0.07	-0.04	-0.07	0.09	-0.01	-0.05	0.11*	0.04	-0.06	0.03	0.08	-0.10 [†]	-0.07	-0.07	-0.07	0.13*	0.05	0.09	0.16**		
23 IPO in the main market of LSE	0.06	0.24	0.07	-0.00	0.10 [†]	-0.02	-0.19***	-0.10 [†]	0.05	-0.02	0.14**	-0.12*	-0.08	0.06	-0.07	0.32***	0.25***	0.36***	-0.04	0.15**	0.07	0.19***	-0.12*	-0.10 [†]	

^a in log form
^b p < .10, * p < .05, ** p < .01, ***p < .001

Table 6 presents how the study's set of predictors maps onto each exit route. We observe differences in the mean values of each power-dimension between the continuation and total exit routes. These differences in most cases, are less pronounced between continuation and partial exit (financial or managerial). This

descriptive analysis provides preliminary support for our predictions. For example, 46.24% of founders who continued in the business were CEO and/or board chair at IPO, compared to 31.65% for founders who exited totally, and 35.29% for founders who chose partial financial exit; 17.20% of founders who continued to work in the business were the inventor or the main developer of the product, compared to 3.80% for founders who exited totally and 9.68% for founders who chose partial managerial exit. Founders who continued in the firm, on average held 17.90% of ownership at IPO, compared to 10.49% for founders who exited totally and 14.90% of founders who chose partial managerial exit. Founders who continued had an average of 14.66 years of working in a related industry; founders who exited totally had an average of 10.43 years and founders who chose managerial exit had an average of 14.24 years of experience in a related industry. Founders who continued served on average on 8.11 boards during the five years before the IPO, while founders who exited totally served on 5.48 boards and founders who exited financially served on 8.53 boards during the same period. Founders who continued were reported in the news 15.28 times compared to 11.73 times for founders who exited totally. We observe that our lifestyle predictors of exit show a different pattern. Specifically, being a serial entrepreneur peaks for managerial exit (48.39% versus 25.81% for continuation and 31.65% for total exit). The same pattern is observed for age; the average age of founders who exit managerially is the highest among all the categories (48.68 years versus 45.88 years for continuation and 47.29 years for total exit). However, IPO in a hot period peaks for financial exit; 82.35% of financial exits involved an IPO in the hot period (2004-05), compared to 49.46% for continuation, and 55.70% for total exit.

Tables 7 and 8 report the regression results. Model 1 in table 7 includes the

control variables which explain 8.4% of the variance in the dependent variable. Turnover growth before the IPO is the only statistically significant individual control variable ($\beta=-0.150$, $p<0.05$), and has a negative association with founders' total exit; this suggests that good pre-IPO performance induces the founder to stay in the company. The inclusion of the independent variables in model 2 increases the model's explanatory power significantly to 24.3% of the variance. The dummy variable for founder being a CEO or board chair has a negative association to total exit ($\beta=-0.305$, $p<0.1$) and indicates that founders with structural power (CEO or board chair), on average, are 7.4% less likely to exit the company soon after the IPO. The proportion of the founder's ownership at IPO has a negative and significant association to total exit ($\beta=-3.060$, $p<0.001$); specifically, all else being equal, 1% more ownership at IPO is associated with a 0.7% lower probability that the founder will exit the venture totally soon after the IPO.

Being the inventor or the main developer of the product ($\beta=-1.299$, $p<0.001$), and having more experience in a related industry ($\beta=-0.028$, $p<0.01$) have a negative and significant association with founders' total exit. More specifically, being the main developer is associated to 31.4% decreased probability of total exit; and one additional year in a related industry is associated with a 0.7% reduced probability of total exit. These results suggest that expert power is related to a lower probability that the founder will exit totally from the business soon after the IPO. The model also shows a negative and significant association between the number of other directorships held by the founder in the five years before the IPO, and the probability of total exit ($\beta=-0.028$, $p<0.01$); specifically, one extra directorship is associated to a 0.7% reduced probability of total exit. This indicates that prestige power is

related to a lower likelihood of founders' total exit soon after the IPO.

Table 6 Descriptive Statistics

	<i>Continuation</i>	<i>Financial Exit</i>	<i>Managerial Exit</i>	<i>Total Exit</i>
Founder CEO/chairman	46.24%	35.29%	32.26%	31.65%
Ownership at IPO	17.90%	19.50%	14.90%	10.49%
Founder inventor	17.20%	29.41%	9.68%	3.80%
Experience in related industry	14.66	12.12	14.24	10.43
Other directorships	8.11	8.53	6.52	5.48
Total news	15.28	5.24	8.58	11.73
Serial Entrepreneur	25.81%	23.53%	48.39%	31.65%
Founder Age	45.88	42.29	48.68	47.29
IPO in the Hot Period	49.46%	82.35%	41.94%	55.70%

Overall, our results provide support for hypothesis 1 (and its four sub-propositions). With the exception of the non-significant results for media coverage ($\beta=0.006$, $p=0.9$), all the other proxies for structural, ownership, expertise and prestige power have a significant negative association to total exit from the business.

Model 3 tests the role of type of stock market (main LSE market versus AIM). First, we observe a direct relationship between market type and the decision to exit totally. Founders who negotiated an IPO on the main LSE market are (all else being equal) 77.9% more likely to exit totally from the business after IPO than if the IPO is negotiated in the AIM market ($\beta=4.149$, $p<0.01$). This might be because in the main LSE market competition is more intense and the constraints are higher than those in the AIM market. Additionally, as predicted, the association between founder power and total exit differs between the main LSE market and the AIM for certain power-dimensions. Specifically, the interaction between structural power and IPO in the main market has a positive and significant association with total exit

($\beta=3.481$, $p<0.001$); this indicates that listing on the LSE moderates the negative association between founders being CEO or board chair, and total exit; this provides support for hypothesis 2. Moreover, the interaction between ownership power and IPO in the main market is negative and significant ($\beta=-88.160$, $p<0.001$), indicating that ownership power is related more strongly to total exit in the main market compared to the AIM, as predicted by hypothesis 3. Regarding prestige power, the relationship between media coverage and founder exit is stronger for the main market ($\beta=-0.564$, $p<0.05$) compared to the AIM. The difference in the two markets in the relationship between directorships and founders' total exit is not significant according to Model 3 ($\beta=-0.110$, $p=0.3$). Overall, hypothesis 3 is partially supported (for ownership and media coverage but not directorships).

To allow visualization of the moderation results, we plotted the interaction effects between type of IPO market and the founder's different power dimensions (figure 2). We observe that CEO or board chair founders are less likely (by 14.3%) to totally exit the company after going public in the AIM market. In contrast, for the main market the effect is reversed; founders are more likely (by 8.6%) to exit totally. Founder's ownership has a negative association to the probability of total exit for both the AIM and the main market. However, an increase in ownership of 1% generates a sharper decrease in the probability of founders' total exit in the main market (16.5%) compared to the AIM (7.0%). In terms of founders' prestige power, a change of one article in media coverage of the founder has a minor effect on likelihood of total exit in the AIM (0.8%) but a significant effect in the main market (9.2%). In terms of other directorships, there is no major difference in the slopes, suggesting that the effects of directorships on founders' total exit does not differ between the AIM and the main market (0.6% versus 2.4%).

We performed a multinomial-logit regression model to explore the factors associated to founders' partial exit using the categorical variables of financial exit, managerial exit and total exit as dependent variables (see table 8). The first observation is that the multinomial model confirms the binary-regression results in terms of predicting total exit. The power dimensions are all negatively and significantly associated to total exit (as opposed to continuation), even in the presence of the partial exit categories, which increases our confidence in the previous results. Regarding financial exit (i.e. selling shares but remaining as a manager), we found that founders were 54.1% more likely to exit financially (than to remain with the firm) if they were male ($beta=-12.915$, $p<0.001$ for female founders), 7.7% more likely to exit financially if the company was listed on the main market ($beta=2.454$, $p<0.05$), and 7.7% more likely to exit financially if the company went public during a hot period ($beta=1.923$, $p<0.05$). Founders' power dimensions generally have a non-significant association to financial exit with the exception of media coverage: one extra mention in the media reduced the likelihood of financial exit by 3.5% ($beta=-0.862$, $p<0.05$).

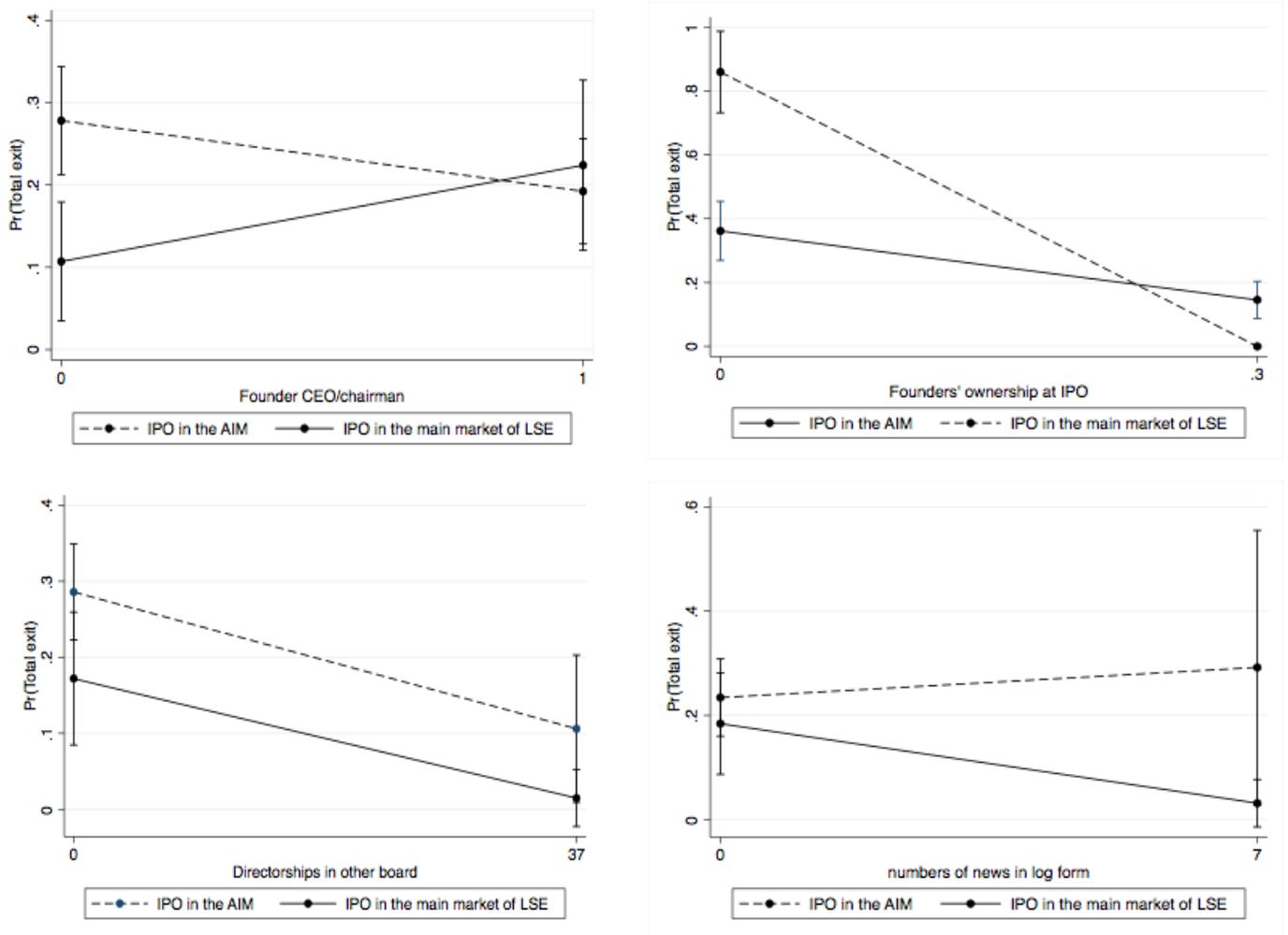
Table 7 Binary Regressions on Total Exit

Variables	Totally exit from the business within 24 months after lock up period		
	Model 1	Model 2	Model 3
serial entrepreneur	0.039 (0.184)	0.081 (0.212)	0.123 (0.210)
the age of founder	0.011 (0.011)	0.017 (0.013)	0.013 (0.013)
female entrepreneur	-0.201 (0.327)	-0.436 (0.292)	-0.430 (0.292)
ownerships holding by other founders	-0.695 (0.775)	-1.672 ⁺ (0.877)	-1.827* (0.917)
the size of the board	-0.089 (0.065)	-0.159* (0.077)	-0.158 ⁺ (0.088)
ownership holding by institutional investors	0.200 (0.481)	-0.161 (0.565)	-0.340 (0.559)
total assets of the business ²	-0.070 (0.050)	-0.090 (0.057)	-0.108 ⁺ (0.064)
business turnover growth within 3 years before IPO	-0.150* (0.068)	-0.143 ⁺ (0.080)	-0.140 ⁺ (0.080)
firm age	-0.000 (0.003)	0.001 (0.004)	0.002 (0.004)
annualized holding period return	-0.252 (0.349)	-0.219 (0.335)	-0.199 (0.353)
hi-tech firm	0.036 (0.260)	0.104 (0.261)	-0.032 (0.300)
length of locking period	-0.016 (0.025)	0.003 (0.025)	0.002 (0.025)
IPO in the hot period	-0.102 (0.194)	0.034 (0.210)	0.042 (0.218)
founder CEO/chairman		-0.305 ⁺ (0.180)	-0.369* (0.186)
ownership at IPO		-3.060*** (0.873)	-2.977*** (0.847)
inventor/main product developer		-1.299*** (0.358)	-1.189*** (0.353)
experience in the industry of the founding business		-0.028** (0.009)	-0.030** (0.010)
directorships in other business		-0.028** (0.011)	-0.024* (0.011)
news mentioned the founder before IPO ²		0.006 (0.084)	0.034 (0.092)
IPO in the main market			4.149** (1.607)
IPO in the main market*founder CEO/chairman			3.481*** (1.036)
IPO in the main market*ownership at IPO			-88.16*** (27.19)
IPO in the main market*inventor/main product developer			no cases
IPO in the main market*experience in the related industry			-0.055 (0.044)
IPO in the main market*directorships in other business			-0.110 (0.082)
IPO in the main market*news mentioned the founder before IPO			-0.564* (0.260)
Constant	0.616 (0.945)	2.133* (1.083)	2.584* (1.177)
Log-likelihood	-161.92	-133.80	-128.91
Pseudo R-squared	0.084	0.243	0.271
Observation	313	313	313

² in log form

+ p < .10, * p < .05, ** p < .01, ***p<.001

Figure 2 Interaction effects between power-dimensions and type of IPO market (main market vs AIM) on founders' total exit



In relation to managerial exit, we found that founders were 8.7% more likely to quit their board position but keep their shares if they were serial entrepreneurs ($\beta=1.265$, $p<0.01$). Older founders were more likely to choose managerial exit ($\beta=0.059$, $p<0.05$). Specifically, one extra year of age is associated to a 0.4% higher probability of managerial exit. Importantly, founders' power dimensions generally had a non-significant relationship to managerial exit with the exception of structural power; founder-CEO/chairman has a negative but marginally significant association with founder managerial exit ($\beta=-1.022$ $p<0.1$); being CEO or board

chair is associated to a 6.2% lower probability of managerial exit.

Overall, our analysis shows that the power dimensions typically have a non-significant relationship with partial exit (both financial and managerial). Partial exits are associated to demographic and lifestyle factors (non-power related) such as gender, money (IPO in the main market, and during a hot-period), career-path (serial entrepreneurship) and age; we elaborate on these aspects in the discussion section. Overall, our results support hypothesis 4, suggesting that power is less relevant for explaining founders' partial exit behavior (financial or managerial) compared to total exit.

Table 8 Multinomial Regression on Entrepreneurial Exit

Variables	Exit Financially	Exit Managerially	Exit Totally
founder CEO/chairman	-0.516 (0.618)	-1.022 ⁺ (0.547)	-0.704* (0.344)
ownership at IPO	-0.484 (1.998)	-0.497 (1.604)	-5.262** (1.741)
inventor/main product developer	0.792 (0.741)	-0.338 (0.803)	-2.206** (0.811)
experience in the industry of the founding business (in years)	-0.025 (0.035)	-0.020 (0.026)	-0.053** (0.017)
directorships in other business	0.020 (0.028)	-0.031 (0.023)	-0.055** (0.021)
news mentioned the founder before IPO ^a	-0.862* (0.438)	-0.112 (0.195)	-0.059 (0.159)
serial entrepreneur	0.338 (0.801)	1.265** (0.431)	0.441 (0.430)
the age of founder	-0.052 (0.047)	0.059* (0.028)	0.039 (0.026)
female entrepreneur	-12.915*** (0.629)	0.853 (0.685)	-0.565 (0.480)
ownerships holding by other founders	-3.073 (2.405)	0.345 (1.603)	-2.886 ⁺ (1.579)
the size of the board	-0.432 ⁺ (0.262)	0.169 (0.173)	-0.334* (0.157)
ownership holding by institutional investors	0.848 (1.754)	-2.278 (1.554)	-0.640 (1.158)
total assets of the business ^a	-0.064 (0.195)	0.086 (0.136)	-0.194 ⁺ (0.115)
business turnover growth within 3 years before IPO	-0.053 (0.086)	-0.006 (0.013)	-0.276 ⁺ (0.154)
firm age (in months)	-0.000 (0.009)	-0.006 (0.008)	0.001 (0.008)
annualized holding period return (IPO to 24 months after locking period)	-0.950 (0.921)	-1.473 ⁺ (0.825)	-0.733 (0.990)
hi-tech firm	-0.145 (0.799)	0.190 (0.710)	0.120 (0.520)
length of locking period	0.017 (0.069)	-0.080 (0.090)	0.003 (0.043)
IPO in the hot period	1.923* (0.799)	0.249 (0.505)	0.303 (0.455)
IPO in the main market	2.454* (1.249)	1.875 (1.237)	1.661* (0.847)
Constant	2.936 (3.227)	-5.101* (2.612)	4.471* (2.236)
Log-likelihood	-244.740		
Pseudo R-squared	0.251		
Cases	313		

^a in log form

+ p < .10, * p < .05, ** p < .01, ***p<.001

DISCUSSION AND CONCLUSION

IPO is a time of uncertainty for entrepreneurial companies and their founding teams, and is characterized by turnover in companies' control and direction (Pagano, Panetta, & Zingales, 1998). An IPO represents an opportunity for the founders to raise funds to grow the business; it also offers them the chance to cash out and exit the venture. Interestingly, our data shows that less than half of entrepreneurs leave the company they created soon after IPO. Only 25.2% of the founders of IPO firms on the LSE exit their ventures totally within 24 months after the end of the lock-up period; 9.9% exit from the top management team but keep their shares; and 5.4% sell their shares but remain in the firm as an employed manager. Our study links founders' power structure at the time of the IPO to the likelihood of their exiting the firm soon after the IPO, either totally or partially.

Consistent with our prediction, the results show that founders with less power at the time of IPO are more likely to exit totally soon after the IPO. Importantly, the results hold for multiple dimensions of power, namely structural, ownership, expertise and prestige power. This relationship between power and total exit is moderated by the institutional environment of the IPO. Specifically, a negative relationship between having structural power (i.e. being founder-CEO/board chair) and total exit is reduced in the main market (LSE) compared to the AIM. This may be because structural power is more likely to be constrained and challenged in the main market which is more strictly regulated, and on average, includes companies with larger boards and more independent directors. In contrast, the negative relationship between ownership and prestige power and total exit is increased for the main market of the LSE compared to the AIM. Since the main market is more fragmented than the AIM (i.e. a larger number of public investors own small equity holdings), ownership offers more

autonomy to founders, and prestige-signals matter more to investors. Thus, the relationship between ownership and prestige power and founders' exit behavior is enhanced in the main market.

In addition, we find that power dimensions do not explain equally founders' partial exit after the IPO. Only prestige power proxied by media coverage, is associated with financial exit. This might be because of the potentially negative market signals generated by a well-known founder selling his or her shares and remaining in a leadership position. Regarding managerial exit, only structural power (namely being CEO or board chair) prevents founders from leaving management but retaining their shares. That might be because founder-CEOs or board chairs are less likely to quit management since they enjoy more control over the business, and are too important to be dismissed easily by investors.

We found that founders' partial exits are associated with lifestyle and demographic factors (unrelated to power) such as money, career objectives, age and gender. Specifically, financial exit is positively related to the IPO being in the main market (compared to the AIM), and with the offer coinciding with a hot period in the IPO market. These relationships point to financial motivations for exit; IPOs in the main LSE market and occurring during a hot period tend to produce higher returns for founders. Financial exit is related also to gender (males are more likely to exit financially) which can be also explained by the fact that males on average, are more motivated by and interested in making money than females (Cromie, 1987). However, managerial exit is related positively to founder age and a career as a serial entrepreneur. These relationships point to a lifestyle motivation for managerial exit. Older founders might be tired of running the business and happy to retire from management while retaining their shares and remain part of the business as an

investor. Serial entrepreneur founders will choose managerial exit to allow them to invest their time in a new venture.

Overall, we find that while total exit is related to power, partial exit seems more of a lifestyle decision. If the focal actors lack power and control over their project, they may become frustrated and disassociate from their project (total exit). Instead, partial disassociation (in our context financial or managerial exit) is caused not by frustration derived from lacking power but is a more conscious decision related to the actors' preferences; namely how they see their lives in relation to their project.

Theoretical Contributions

We contribute to the literature on entrepreneurial exit (DeTienne & Cardon, 2012; Wennberg, Wiklund, DeTienne, & Cardon, 2010) in three ways. Firstly, we examine an empirically overlooked phenomenon, namely founders exit after IPO. While the IPO is often positioned as a key exit route for founders (DeTienne, 2010; Wennberg & DeTienne, 2014) there is a lack of scholarly empirical work on this aspect and the drivers of the exit decision. Secondly, we introduce the concepts of financial and managerial exit, distinguishing partial from total exits. Thirdly, we bring in a specific and novel theoretical angle (power theory) to explain the exit decisions of founders soon after an IPO.

We contribute to the power-succession literature (Boeker, 1992; Shen & Cannella, 2002; Zhang, 2006) by applying power theory to a novel, 'extreme' context, namely founders' exit after IPO. In contrast to executives, founders at IPO are more attached to their firms since they initiated the project, typically take the exit decision under conditions of good performance, and cannot be forcibly removed because selling shares is voluntary. Moreover, founders have multiple exit options; they can exit totally or partially (financially or managerially). We find that while lack of power is

associated with total exit across four power-dimensions (structural, ownership, expertise, prestige power), partial exit is explained better by lifestyle and demographic factors such as money, career, age and gender. The broader implication of our empirical finding is that while lack of power can explain a focal actor's total exit (possibly out of frustration) from the project he or she started, partial disassociation is related more to preference and lifestyle. This is a novel idea for power theory and should be tested in different business and management contexts, and in the broader sphere of human endeavor.

Limitations and Further Research

This study advances knowledge about the relationship between power and exit but has certain limitations. Firstly, like other studies adopting a power perspective to explain managerial succession we cannot pinpoint the moment when the decision to exit was made by the founders. This implies that we cannot exclude reverse causality. For example, we cannot distinguish between cases of founders that made the decision to exit before the IPO and this influenced their structural power at IPO (being the CEO or board chair) from cases of founders whose structural power at IPO influenced their subsequent exit decision. Further field research is needed to distinguish these two scenarios. Hence, we cannot claim causality but simply provide evidence of association. In our defense, the other power dimensions, apart from structural power, could be considered exogenous from the IPO event; founder ownership is mostly determined by valuations, while expertise and prestige are built over the long term and are not related to the IPO.

Secondly, we focused only on IPOs on the LSE. Since we found differences between the main market and the AIM, we are conscious that the generalizability of our results to different geographies and public markets needs further evidence.

Conclusion

In this study, we explored why founders exit their venture soon after an IPO. Specifically, we advanced the thesis that lack of power over the business at the time of the IPO is related to founders' total exit soon after. We found that this thesis holds for multiple dimensions of power, namely structural, ownership, expertise and prestige power. Interestingly, the strength of these relationships is contingent upon the conditions on the stock exchange in which the IPO takes place. Moreover, we found that lack of power does not have an equally strong association with partial exit from the business (financial or managerial); partial exits seems to be related to lifestyle and demographic motivators such as money, career, age and gender. We contribute to both the entrepreneurial exit literature (DeTienne & Cardon, 2012; Wennberg, Wiklund, DeTienne, & Cardon, 2010) and the power-succession literature (Boeker, 1992; Shen & Cannella, 2002; Zhang, 2006) by introducing a novel theoretical angle (power) to explain an overlooked phenomenon, namely founders' exit after an IPO.

CHAPTER 4 WHAT WILL HAPPEN TO ME IF YOU LEAVE ME NOW? DOES POST-IPO EXIT OF FOUNDER AFFECT SUBSEQUENT FIRM-PERFORMANCE?

ABSTRACT

Exit of the main founder from a recently listed entrepreneurial firm might have both drawbacks and advantages. How does the leave of the main founder affect business performance after going public in general? Does it harm the business by bringing in more uncertainties and reducing investors' trust? Or does the firm benefit from entrepreneurial exit through transferring to a more professional operation system? In this study, we empirically test the association between the main founder's exit, up to five years post-IPO, and the firm's subsequent performance. We study a hand-collected sample of the main founders from the total population of UK entrepreneurial IPOs between 2002 and 2010. We find that while the post-IPO exit of the main founder is related to a short-term drop of the stock performance, in the long-term, founder's exit is positively related with the firm's financial performance.

Keywords: Entrepreneurial exit, event study, post-IPO performance.

INTRODUCTION

Founder exit is a key event in the entrepreneurial process for two main reasons (DeTienne, 2010): first, exit represents the time of harvesting, when the founder is presented with the opportunity to cash in from all the hard work, time and energy invested into the business (Boeker & Karichalil, 2002); second, the departure of the founder may represent a change of direction and strategic orientation of the firm (Shen & Cannella, 2002), as well as an injection of new resources (Haveman & Khaire, 2004). In general, there is no doubt that the exit of the founder is a time of great uncertainty and brings with it considerable changes for the firm and its operations (Wasserman, 2003). Despite the recent scholarly attention paid to the phenomenon of entrepreneurial exit, there is still no consistent argumentation and evidence regarding the effect of the main founder's exit on the subsequent performance of the firm.

The management literature seems to be divided into two camps. On the one hand, there is literature suggesting that the exit of the founder has a positive effect on the venture; after the start-up phase, firms reach a point where management style needs to move from informal and entrepreneurial towards more strategic and procedural (Daily & Dalton, 1992; Rubenson & Gupta 1992). Growing firms benefit from the replacement of the founder with a professional manager; this key event helps to set up more structured management processes, which can improve operation and increase investors' trust in the firm's potential (Wasserman, 2003; Boeker & Wiltbank, 2005).

On the other hand, there is literature suggesting that the founder's exit has a negative effect on the firm's performance (Haveman & Khaire, 2004). Entrepreneurial businesses are highly centralized and are usually over-dependent on their founders. In the case of the founder's departure, the transition to professional management can

create uncertainty (Karaevli, 2007) and have a negative impact on the company (Hofer & Charan, 1984). Moreover, founders value their businesses more than professional managers and develop a higher level of attachment to their firms (Wasserman, 2003). Founders do not just manage the business but invest in it all their energy and entrepreneurial passion. Therefore, the replacement of the founder may hinder the development of the business and may ultimately lead to failure (Haveman, 1993).

Most of the current empirical literature on founder-CEO succession focuses on the antecedents of succession (Haveman, 1993; Wasserman, 2003; Haveman & Khaire, 2004); limited effort has been made to empirically test the consequences of founder's exit on firm performance (except for Sam, 2003; Haveman & Khaire, 2004; Bamford, Bruton, & Hinson, 2006; Oertel & Walgenbach, 2012), especially the founder's exit effect on a post-IPO venture. Our study aims to elucidate this point by testing for both short-term and long-term effects of founder's post-IPO exit on firm performance. We focus on a single 'main founder' for each company (the CEO, Chairman of the Board, main inventor and/or major shareholder, in sequence). Since main founders play a prominent, figurehead role and are often mentioned in prospectuses and news feeds from the London Stock Exchange, we propose that their exits are visible and influential to firm performance.

We have selected post-IPO firms as our target population because the IPO event provides a large amount of external resources to trigger the rapid growth of the business, and also gives entrepreneurs the opportunity to cash-out and leave the company (Brau, Sutton, & Hatch, 2010). Additionally, being listed in the public market enables more visibility to the event of founder's exit. Moreover, the IPO makes it possible to compare between the effects of founder exit on short-term stock

performance and on long-term financial performance.

We also build on the literature concerning the effects of CEO succession on firm performance (Furtado & Karan 1990; Khurana & Nohria, 2000; Shen & Cannella, 2002). The CEO, like the main founder, is a critical player in the organization, who is able to direct the company in the pursuit of business opportunities (Barnard, 1938) and control the strategy and structure of the business operation (Woodward, 1980; Lawrence & Lorsch, 1967; Thompson, 1967). CEO succession may affect the company's performance through strategic change, market entry and investment (Berns & Klarner, 2017). However, the relationship between CEO succession and venture performance remains inconsistent in the past empirical literature. Some studies argue that CEO succession may improve performance, since successors are more adventurous (Beatty & Zajac, 1987). Others find a negative association between CEO succession and venture performance, especially when the announcement of the departure is unexpected (Worrell, Davidson, Chandy, & Garrison, 1986; Graffin, Boivie, & Carpenter, 2013).

In any case we believe that founders' exit is significantly different than the exit of the CEO (Wasserman, 2003). As the initial architect of the company, the main founder's identity is even more tightly linked to that of the firm (Dobrev and Barnett, 2005); compared to professional CEOs, founders usually have a larger amount of ownership, a closer relationship with the top management team and therefore a stronger control over the board. The founder also holds a clear vision of the future direction of the business; therefore their exit is likely to cause greater shock inside and outside the company. For example, the annualized return of the Apple stock slipped down from 32% to 19% after the departure of Steve Jobs (Stoffel, 2013).

Our results show that even though the main founder's exit generates a negative

signal and negatively affects stock performance in the short-term, it benefits the post-IPO financial performance of the business in the long-run. We contribute to the literature on entrepreneurial exit by identifying the effects of founder's exit during a more mature stage of the business, namely post-IPO. Specifically, we differentiate between the anticipated and the real effects of the founder's exit on the post-IPO company performance.

THEORY AND HYPOTHESIS DEVELOPMENT

The existing management literature has developed a number of theoretical arguments discussing the relationship between founder/CEO exit and subsequent company performance, which can be either positive or negative. We now review both arguments separately.

The Positive Effect of Founder Exit

Some scholars have argued for a positive relationship between founder exit and subsequent firm performance (Boeker & Wiltbank, 2005; Wasserman, 2003). They suggest that entrepreneurial succession could be an invigorating and revitalizing process for the firm (Haveman & Khaire, 2004). The rapidly growing firm may soon outpace its founders' managerial capabilities (Buchele, 1967; Tashakori, 1980; Drucker, 1985; Clifford & Cavanagh, 1985) and the replacement of the founder with a professional manager may help to improve the management skills of the top management team (Flamholtz, 1986; Boeker & Wiltbank, 2005; Wasserman, 2003). Firms that have just been listed on the public market are confronted with rapid expansion, transitioning into larger, more structured organizations. Founding entrepreneurs are usually less experienced in dealing with such a high level of uncertainty and formalization, whereas professional managers are better equipped to

lead this type of company (Shirokova & Knatko, 2008).

The founder's exit may also provide the firm with the opportunity to bring in new resources and energy (Haveman & Khaire, 2004). The new professional managers may infuse the business with more recent information about the market and the product, which will boost product development and promotion of the business, thus enhancing the company's performance (Pfeffer & Salancik, 1978; Haveman & Khaire, 2004). In terms of financial resources, the founder may exit the firm after IPO by selling out the shares to a larger business group or to new institutional investors. Particularly in the case of a firm with financial difficulties, the founder's exit may help the firm acquire external social capital, which will facilitate the recovery and further development of the company (Hambrick & Crozier, 1985). For example, Chung Ju-Yung, the founder of South Korea's largest conglomerate, Hyundai, stepped down from the CEO position in 2000 due to the firm's financial difficulties, apparently caused by its inflexible family-run management and nepotism. The news of Chung's exit cheered the Korean stock market and the firm negotiated a financial package with creditors to reform and restructure (BBC, 2000).

Moreover, in most entrepreneurial businesses where the founders hold a large amount of ownership, the management system is highly centralized. In such cases, the founder's exit will also push the venture to develop a more decentralized control system, which is necessary for the growth of a gradually maturing business (Greiner, 1972; Rubenson & Gupta, 1990).

Given these arguments, we hypothesize that,

H1a: Founder's exit after IPO will be positively associated with firm performance.

The Negative Effect of Founder Exit

Despite the well-known and widely accepted literature suggesting that founder's

exit has a positive effect on firms, an alternative stream of literature supports the theory that there is no significant difference in performance between founder-managed and professional-managed firms (Willard, Krueger, & Feeser, 1992). In fact, some existing studies support the view that the founder's exit may negatively affect the firm's operation and performance.

According to Carroll's "succession-crisis hypothesis" (1984), the death rate of an organization increases following the exit of the founder because the successor, in an attempt to reform the business, may change work routines and increase employees' insecurity, thereby generating a temporary operational crisis. Such crises tend to be more intense when the business is highly centralized (Carroll, 1984). Additionally, when the founder is pushed out due to the firm's poor financial performance, the successor will face higher pressure to execute, which in turn will destabilize the relationships within the top management team (Puffer & Weintrop, 1991).

Although founder's exit provides entry opportunities for new investors, the transition may create uncertainty, which in turn may prevent investors' engagement. The exit of the founder may signal a lower confidence in the future of the business, which will thereby reduce investors' trust in the business (Nelson, 2003, 2007). Additionally, in most negotiation cases, external financial institutions negotiate directly with the main founder; the founder's departure may therefore lead to broken communication and the loss of external resources (Carroll, 1984).

As the initial architect of the firm and the team leader, the main founder's identity is tightly linked to the organization's image (Dobrev & Barnett, 2005). Therefore, the founder's exit may generate an image crisis of the public company in the open market. For example, when Steve Jobs announced that he was to quit the managerial board of Apple, plenty of customers and investors questioned the creativity and future

performance of the company (Waters, 2011).

Another negative effect of the founder's exit on the post-IPO firm is the shift away from the entrepreneurial orientation of the business; entrepreneurial orientation is considered to contribute to the post-IPO survival and performance of the firm since it highlights newness, responsiveness and boldness (Miller, 1983), which benefits the growth of the business in a rapidly changing environment (Mousa & Wales, 2012; Rauch, Wiklund, Lumpkin, & Frese, 2009). Founders, who have a vision of the business's future and enjoy power inside the organization, are more willing than professional managers to develop high-risk strategies and pursue a more entrepreneurial orientation after IPO (Mousa & Wales, 2012). On the contrary, professional CEO's tend to pursue a more conservative business strategy, which may prevent the fast growth of the newly listed company.

Hence, we hypothesize:

H1b: Founder's exit after IPO will be negatively associated with firm performance.

METHODOLOGY

Sample and Data Sources

To test our hypotheses, we constructed a sample of entrepreneurial firms that completed IPO in the London Stock Exchange (LSE) and in the Alternative Investment Market (AIM) between 2002 and 2010. Since our research focuses on entrepreneurial exit, we included only companies that were less than 10 years old at the time of IPO in order to ensure they were still in the young, entrepreneurial stage (Carpenter, Pollock, & Leary, 2003; Eisenhardt & Schoonhoven, 1990; Taulaulicar, Grundei, & Werder, 2005). In line with previous IPO studies, we excluded all IPOs that represented de-mergers, equity carve-outs, reverse takeovers and equity

reorganization. IPOs of investment trusts were excluded for their specific governance structure, and also because it would be difficult to identify a founder (Chahine, Filatotchev, & Wright, 2007). Investment and acquisition vehicles were also excluded since the original founders were no longer with the business at the time of IPO. We also eliminated subsidiaries and spin-offs, since it is not always possible to identify their founders (Kroll, Walters, & Le, 2007).

To test the effect of founder exit on long-term performance, we gathered panel data for six years starting at the time of IPO, resulting in a final sample of 168 firms and 856 firm-year observations. In the case of multiple founders, we selected the main founder for each company, who had at least one of the following roles: CEO, chairman of the board, main inventor and major shareholder. The main founders play prominent roles in the founding and development of the focal firms and hence their exits should be visible and impactful.

Dependent Variable

Firm performance. To test our hypotheses, we assessed both the short-term effects of founder exit on the stock price and the long-term effects of founder exit on financial performance. To measure the short-term reaction of stock market investors, we computed the cumulative abnormal return (CAR) of the firm stock three days before and following the announcement of the founder exiting the venture. To explore the effect of founder exit on the long-term performance of the firm, we used the annual return on assets (net income/total assets) from the year of IPO and five years post-floatation to measure the post-IPO operating efficiency of the firm (Gerakos, Lang, & Maffett, 2013; Espenlaub, Khurshed, & Mohamed, 2008).

Independent Variables

The main predictor in our analysis was the main founder's exit after IPO. We accessed publicly available information from the IPO prospectuses and the published

annual reports, and dummy-coded main founders who departed the board of directors as exits. We considered departing the board as entrepreneurial exit since the directors make major decisions about the company. According to the requirements of the LSE, any change in the board of directors must be announced publicly, providing us a possible way to explore the short-term reaction of the stock market after the entrepreneurial exit event.

Control Variables

At the firm level, we controlled for: the size of the company (calculated as the logarithm of a company's *total assets*); the *annual turnover*; *the age of the company*; and the capital structure, which was measured by the *debt ratio* (total debt/total assets); the effects of which on the firm performance have been consistently proved in the previous studies (Haleblian & Finkelstein, 1993; Tushman & Rosenkopf, 1996; Karaevli, 2007; Andres, 2008). The *size of the board* was also included in the regression since a large board may increase the managerial ability of the entrepreneurial firm and thereby improve its performance (Kroll, Walters, & Le, 2007), but it may also constrain the influence of the individual founder over the company. At the founder level, we dummy-coded for main founders that were the *CEO* during the year of their exit as the departure of a founder-CEO may generate large influence over the company's performance. We also controlled for the main *founder shareholdings* each year, since the amount of ownership the founder holds may indicate his confidence in the firm's performance. Moreover, to control for general changes due to economic conditions in each year, we included year *dummy variables* (2003-2015).

Methods of Analysis

Event study. We performed an event study to explore the immediate effect of founder exit on stock performance. This method has been shown to be a powerful tool

to assess the financial impact of corporate change in both finance and management literatures (McWilliams & Siegel, 1997; Wade, Porac, Pollock, & Graffin, 2006). In event studies, determining the exact timing of the event of interest is critical. Therefore, following the leading literature on this method we developed a conservative measure of exit in order to make sure that the effect on the stock price was not “contaminated” by events other than the founder’s exit (McWilliams & Siegel, 1997). Specifically, we first identified the announcement date of the founder exit through Bloomberg. We defined founders’ exit as news of “Directorate Change”, announcing the founder’s exit from the board. For example, on 15 November 2007, Dr. Paul Johnson left Cyan Holdings Plc, which he founded. The company issued the news about his departure as follows:

“Board Change: Cyan Holdings Plc (AIM:CYAN.L), the fabless semiconductor company specializing in the development of low power consumption, configurable microcontroller chips, announces that Dr. Paul Johnson, Founder, President and CTO, has resigned with immediate effect from the Board of Cyan and as a director of the Company. Dr. Johnson founded Cyan in November 2002 and was CEO and CTO up to the recent reorganization and appointment of Kenn Lamb as CEO...The Board wishes Paul every success for the future.”

To avoid systematic bias caused by confounding events, we dropped the cases of firms that announced the founder exit together with other financial and/or management information, such as annual report, acquisition and/or other board changes; we also dropped from the sample firms that issued other news within the seven-day window surrounding the announcement of the departure of the founder (3 days before and 3 days after that announcement). A shorter event window may not have been enough to capture the significant effect of the event, while a longer window

might have increased the risk of confounding effects (McWilliams & Siegel, 1997). Following this selection procedure, we finally identified 42 cases qualified for the founder exit event analysis.

We applied the market model, in which a firm's return is related to a market portfolio (in our case, the FTSE AIM All-Share index). Using daily returns, we estimated a regression model over the estimation period (ending 23 days before the event and extending back to 150 days prior to the event) to predict each firm's expected normal returns. The abnormal returns during the event window were calculated by subtracting the expected returns from the actual returns. Finally, T-statistics were used to test whether the cumulative abnormal returns (CARs) over a selected event window were significantly different from 0.

Panel regression. To test the long-term effect of entrepreneurial exit, we applied a panel regression model. After a Hausman test (Hausman, 1978), we decided to use a fixed-effects model, which controls for the constant difference across firms. We did not include industry dummies in our model, since industry sectors for all the firms were constant during the study period, and therefore had already been controlled in the fixed-effects model.

RESULTS

Descriptive Analysis

From 2002 to 2015, 13.7% of the main founders left the board within five years of getting the company public, and 21.4% of the main founders were still substantial shareholders (with 3% or more ownership). At the time of IPO, most entrepreneurial firms operated at a loss (ROA= -70.4% on average), while they made a great improvement during the five years after the IPO event (ROA=0.2%). The average

total assets held by the entrepreneurial companies at the time of IPO was 2.4 million GBP, and this number increased to 11.3 million GBP after five years. The average age of the companies at IPO was 4.8 years, while the average age of the main founders was 46, and 53% of them held the CEO position. On average the founders in our sample held 19.5% ownership of the business at the time of IPO and this number reduced to 12.7% after five years. The average size of the boards in our sample was 5.5, and did not change substantially over the period of observation. These figures suggest that founders were still major shareholders in most post-IPO firms. Meanwhile, the ratio of total liabilities of the ventures decreased from 85.3% on average at time of IPO to 47.1% five years later, suggesting an improvement in financial status of most companies during the observation period.

Table 9 Descriptive Statistics and Correlation Matrix

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1	Return on assets	-0.42	1.43								
2	Founders exit within 5 years after IPO	0.14	0.34	-0.04							
3	Founder CEO	0.49	0.50	0.10**	-0.37***						
4	Founder's ownership	0.16	0.18	0.06 ⁺	-0.28***	0.27***					
5	Total assets ^a	15.80	1.70	0.38***	-0.06 ⁺	0.12***	-0.13***				
6	Turnover ^a	13.40	4.98	0.22***	-0.04	0.13***	0.14***	0.41***			
7	Company age ^a	1.81	0.55	0.17***	0.13***	0.07*	0.11**	0.32***	0.46***		
8	Size of the board ^a	1.70	0.29	0.05	-0.15***	0.05	0.11***	0.33***	0.08*	0.07*	
9	Debt ratio	0.56	0.81	-0.54***	-0.00	0.01	0.11***	-0.30***	0.08*	-0.05	-0.06 ⁺

Tables 10 presents the results of the event analysis. It shows a significant negative reaction of the stock market toward the news that the main founder left the board after IPO. The cumulative abnormal return (CAR) within the seven-day event window was -8.6%. To further investigate the effect of exit on stock performance, we examined

daily abnormal returns and cumulative abnormal returns over different event windows. As Table 10 shows, none of the cumulative abnormal returns were significant in the three days before the announcement of founder exit, suggesting that there was no leak of pertinent information before the event. During the three days following the day of the announcement of founder's exit, we found that the stock market did not have a significant reaction for the intervals from 0 to 1 day and 0 to 2 days, indicating that the market took time to react to the event. However, on the third day after the announcement, the uncertainty raised by the founder's exit triggered fluctuation of the stock and produced a significant negative return (-2.8%). The magnitude of the effect is considerable; in comparison, the stock return after a new CEO appointment event increases by 1% (Graffin et al, 2013).

Table 10 Excess Market Returns Surrounding the Announcement of Founder Exit

Days	Exit of the founder after IPO	
	Abnormal Return	t
Cumulative abnormal returns		
-3 to 3	-8.6%	-2.21*
-3 to -1	-2.6%	-1.55
0 to +1	-3.7%	-1.44
0 to +2	-3.2%	-1.17
0 to +3	-6.0%	-1.80+
Daily abnormal returns		
-3	-0.5%	-0.98
-2	-1.2%	-0.93
-1	-0.9%	-1.44
0	-3.6%	-1.42
1	0.0%	-0.06
2	0.4%	0.92
3	-2.8%	-2.95**

Multivariate Panel Regression Analysis

Table 11 shows the fixed-effect panel regression estimates of founder's exit on

return on assets. Model 1 examines the control variables, while Model 2 examines the relationship between founder's exit and return on assets.

As Model 1 shows, firms with larger assets and lower debt ratio were significantly more profitable at the post-IPO stage. Meanwhile, firms whose founder held a larger proportion of ownership tended to generate better performance. However, and against our expectations, the size of the board had a marginally negative effect on the performance of the firm; this might have been caused by poor and ineffective communication between members in large boards (Lipton & Lorsch, 1992; De Andres, Azofra, & Lopez, 2005). In terms of the effect of the main founder's exit, we found that, compared with firms whose founder was still in the board, businesses whose founder had departed gained significantly more profit (0.42% more on average). In contrast to our findings in the event analysis, the advantages of founder's exit overcame its negative consequences and produced a significant positive effect in the long-run.

Table 11 Results of Fixed-Effects Regression Analysis for Post-IPO performance

Variable	Return on assets		
	(1)	(2)	(3)

Main Founder exit after IPO		0.423*	0.032
		(0.194)	(0.214)
Founder CEO	0.065	0.227	0.255
	(0.164)	(0.179)	(0.177)
Founder's ownership	1.546*	1.816*	1.872**
	(0.754)	(0.762)	(0.753)
Turnover ^a	0.015	0.017	0.013
	(0.016)	(0.016)	(0.016)
Total assets ^a	0.134*	0.135*	0.146*
	(0.062)	(0.061)	(0.061)
Age of the company ^a	-0.164	-0.234	-0.211
	(0.277)	(0.278)	(0.274)
Board size ^a	-0.461 ⁺	-0.401 ⁺	-0.355
	(0.240)	(0.241)	(0.238)
Debt ratio	-0.986***	-0.988***	-1.057***
	(0.065)	(0.065)	(0.066)
Main Founder exit after IPO * Debt ratio			0.703***
			(0.168)
Y2003-2015
Constant	-0.949	-1.105	-1.304
	(0.928)	(0.928)	(0.918)
R-squared	0.348	0.352	0.369

Additionally, we explored the moderating effects of the debt to assets ratio on the exit to performance relationship. Model 3 shows that the coefficient of the interaction between the main founder's exit and the debt to assets ratio was statistically significant and positive. The association between the main founder's departure and the company's performance after IPO was negligible when the business operated under a low debt-to-assets ratio. Conversely, under a high debt to assets ratio the benefit of the main founder's exit became significant. In other words, the departure of the main founder might help to reduce the negative effect of a large debt-to-assets ratio on a firm's performance. In real terms, when the debt-to-assets ratio of a

company increases by 1%, the main founder's exit would reduce its negative effect on return on assets by 0.7%.

DISCUSSION AND CONCLUSION

The IPO is an important time for entrepreneurial companies, providing them with opportunities to raise funding and to grow, but it also offers founders an opportunity to cash-out and exit from the venture. The main founder's exit may leave the company in a situation of uncertainty, while the arrival of a new CEO may bring disruptive change to the control and direction of the company (Pagano, Panetta, & Zingales, 1998). Our literature review revealed an inconsistency in relation to the effects of founder's exit. We therefore attempted to present the advantages and disadvantages of founder's departure and then we empirically tested the association between exit of the main founder's and firm performance in post-IPO companies.

Our findings show that, in the short-term, the exit of the main founder after IPO generates a significant negative signal in the eyes of the investors, which lowers the firm's stock return. However, in the long run, the firm benefits from the main founder's departure possibly because a new leader generally helps to improve the business's performance and profitability. This is true particularly for firms that operate under unfavorable financial conditions (high debt to assets ratio) after IPO. In other words, the exit of the main founder might provide a way to introduce new investors to the business, whose participation may help to diffuse the financial crisis and improve the performance of the company.

Overall, although the uncertainty generated by the founder's departure may reduce the confidence of investors and create a short-term crisis for the company in the stock market, the transition to professional management still benefits the public firm in the

long-run.

Theoretical Contribution and Implication

Our review of the literature revealed inconsistent arguments regarding the relationship between founders' exit and firm performance. Our study adds to the existing literature by empirically testing this relationship in companies shortly after IPO. Most importantly, we contribute to the entrepreneurial exit literature by comparing the short-term effect of founder's exit on the stock value with its long-term effect on the financial performance of the firm. By doing this we emphasize the difference between anticipated and real effects of the main founder's exit on the business's performance. Existing literature only focuses on the influence of founder exit on the real operation of businesses in the long-run, but overlooks its short term effects on the stock price. Even though investors may question the operational ability of the entrepreneur to continue running the business after the firm is listed, the main founder's continued engagement still helps to maintain outsiders' confidence in the future development of the business. Our findings recognized the role of the founder's identity in constructing and maintaining the image of the business in the market, even after the firm's transition to a public company, and thus that the main founder's exit may greatly increase the uncertainty of investors. Second, we demonstrated the role of the financial condition of a company in moderating the relationship between founder exit and firm performance after IPO. The influence of founder exit is found to be significantly different between firms operating with low and high debt to asset ratios. These findings could provide an explanation for the contradictory arguments of past studies and thereby help us better to understand the mechanism of founder exit. It may also help to encourage scholars to further explore the conditional effects of founder exit.

In practice, for listed companies, the departure of the founder signifies a transition of the business from entrepreneurial to professional management. This transition involves changes in operating procedures, management structure and organizational identity. The process involves risk and uncertainty, which reduces the confidence of public investors and thereby creates a short-term fall of the company's stock. A possible strategy for avoiding this problem would be to issue distinct, positive news about the company together with the announcement of the founder's exit. On the other hand, founder exit and the transition to professional management will actually contribute to the post-IPO survival and performance of the company in the long-term, since a fast-growing business will soon outpace the founder's managerial capabilities; compared with entrepreneurs, professional managers are more capable of organizing mature public companies, and their affiliation will also benefit post-IPO companies by bringing in more resources. Moreover, founder exit provides an efficient way to reduce firms' debt burdens, which also contributes to business performance after IPO.

Limitations and Further Research

Even though this study advances our knowledge of the effect of founder exit after IPO, it still has limitations. Our study only discusses the association between the founder's exit and the business's performance in general, and simply explores the moderating role of the financial condition of the business after IPO. More studies are needed to further differentiate the benefits and drawbacks of the founder's exit for different conditions of the business, as well as to consider the effects of different founders' characteristics, in order to better understand the entrepreneurial exit performance mechanism. Meanwhile, our study only discusses the effect of founders' managerial exit, but entrepreneurs actually have multiple exit routes after IPO: they can leave the board but still hold a large amount of ownership, transferring themselves

to the role of an investor; they can quit their entrepreneurial role by selling their shares and become an employee in the group; or they can exit the business totally and completely cut their relationship with the company. Whether different exit routes may generate different effects could be further discussed. Finally, our study on the effects of founder exit may also bring into question the generalizability of our findings. Indeed, we focused on UK entrepreneurial firms and further tests could be run on entrepreneurial firms listed in other cultures and markets.

CHAPTER 5 DISCUSSION

MAIN RESEARCH FINDINGS

As an important event in the lifecycle of the entrepreneurial ventures, IPO not only provides the external financial resources necessary for the further growth of the start-ups, but also generates a “dream-exit” route for entrepreneurs and other investors. Taking the importance of IPO in the process of the venture growing, increasing management and entrepreneurship literature tried to explore and discuss the IPO activities from different perspective. However, based on our literature review, limited effort has been made to explore how different types of founders may influence external resource acquisition via IPO. And very little is currently known on the factors that drive the founders leave the venture after IPO and how founder exit may affect the post-IPO operation of the business. This dissertation aims to fill these gaps and contribute to a deeper understanding of the mechanisms of external resource acquisition and entrepreneurial exit via IPO.

Entrepreneurs can be categorized according to their industry background as well as their functional background. In line with the previous literature, we found in chapter 2, that founders who span categories within each dimension separately face a penalty for being hybrid, in terms of raising money for their firms via IPO. However, audience cannot evaluate individuals based on each category dimension totally separately. When audiences face a multi-dimensional classification, they are less likely to isolate perceptions of categories from each other, and more likely to perceive them simultaneously (Paoletta & Durand, 2015). Our empirical analysis found that founders who span categories across both dimensions of categories are the worst performers, whereas firms with the fully specialized founders performs best in the

fund raising via IPO. Most importantly, we found that firms with partially specialized founders (specialized either in industry or function) perform significantly better than firms with fully hybrid founders in the IPO, while not worse than the firms founded by the fully specialised entrepreneurs. This finding suggests that specializing in one of the two category dimensions helps to reduce or even eliminate the founders' penalty of hybridity along other dimensions. Meanwhile, we found that VCs retaining more equity has positive effects on the ability of IPO firms to secure capital in those firms whose founders are fully hybrid, suggesting that an external expert endorsement can help to offset the penalty of hybridity, especially when hybridity occurs along multiple dimensions.

Except for providing external funds for venture growth, IPO also represents a time of high uncertainty for entrepreneurial team characterised by turnover in the control and direction of the company (Pagano, Panetta, & Zingales, 1998). In chapter 3, we link the founders' power structure at the time of the IPO with the likelihood of them exiting the firm soon after the IPO. To better understand the entrepreneurial exit mechanism via IPO, we distinguish three exit choices of entrepreneurs connected to the IPO event. Founders may exit financially by selling all their shares to become employees in the venture they founded; they may exit managerially, leaving the top management team and the board of directors while holding on to their shares; or they may choose to totally exit the venture by leaving the company completely. The empirical results show that founders with less power (namely, structural, ownership, expertise and prestige power) at the time of IPO are more likely to totally exit the firm soon after the IPO. This finding suggest that when the entrepreneur loses power and control of their project, they may become frustrated and totally disassociate with the project. And these power-exit relationships are found to be moderated by the IPO

institutional environment (being listed in the main market of LSE or AIM). However, the power dimensions cannot explain equally well the partial exit behaviour of entrepreneurs after IPO. Only prestige power approximated by media coverage would prevent the founders from the financial exit. And founder-CEOs or chairmen, holding more structural power, are less likely to quit managerially. Actually, we found that founders' partial exit are associated with their lifestyle and demographic factors. More specifically, financial exit of the founder is driven by their financial motivations of the IPO. Founders who list their firms in the main LSE market and during the hot period tend to receive high returns of their shares, and thereby are more likely to exit financially. Meanwhile, compared with female entrepreneurs, males are more likely exit financially via IPO. Instead, our study point to a lifestyle motivation for managerial exit. Older founders and serial entrepreneurs are more likely to quit managerially via IPO.

The founder's exit is a transition period for a venture, which may leave the company in a situation of great uncertainty, but also provide a chance for the venture to transfer to a more professional and mature stage. In chapter 4 we review the literature and found a clear inconsistency in relation to the benefits and drawbacks of the exit of founders. We empirically tested the association between the exit of the main founder and the firm performance for post-IPO stage. The findings of our analysis show that, in the short-term, the exit of the main founder after IPO generates a significant negative signal in the eyes of the investors which lowers the firm's stock return. However, in the long run, the firm benefits from the main founder's departure while the new CEOs generally help to improve the business performance and profitability. This is true particularly for the firms that operated under high debt ratio after IPO. In other words, the exit of the main founder provides a way to introduce

new investors to the business, whose participation may help to diffuse the financial crisis and improve the performance of the company.

THEORETICAL CONTRIBUTION AND IMPLICATIONS

The findings of the thesis contribute to both the research of entrepreneurship and general management with respect to improve our understanding about the founder's role in the IPO process (before and after) for the entrepreneurial ventures. Our studies make distinct contributions to the entrepreneurship literature by validating of the categorical imperative mechanism for entrepreneurs, demonstrating the importance of the consistent founder's identity in the external resource acquisition of the organisation and empirically investigating different routes and effect of entrepreneurial exit via IPO. This thesis also contribute to the general management literature. More specifically, the findings of chapter 2 contribute to the social categorization research (Zuckerman, 1999; Zuckerman et. al, 2003) via recognizing the importance of studying multidimensional category spaces, the cross-classification effects and the role of third party affiliations in legitimating category spanners. And the findings of chapter 3 extends the power-succession literature (Boeker, 1992; Shen & Cannella, 2002) by applying power theory to a novel context (founders' exit).

In practice, this thesis provides several valuable suggestions to entrepreneurs getting listed their business in the open market. First, it is better for founders to highlight the category they are specialized in when raising fund in the open market. Even though diversified experience may benefit founders in developing their business at the founding stage (Lazear, 2004, 2005; Roberts, et al., 2013), a clear identity of themselves is needed for them to legitimate the business in front of the investors. Second, for category spanners, specializing in one category dimension will help

entrepreneurs to eliminate the damage of spanning in another dimension of category, and gaining a strong endorsements from third parties may also help to reduce the penalty of totally hybrid across multiple category dimensions. Third, founder's departure after IPO will benefit the ventures via transferring their operation from entrepreneurial style to professional style and also provides an efficient way to reduce the debt burden of the firm. However, the negative signal it generated to the public investors cannot be ignored. To avoid this dilemma, it is better for the venture to issue another positive news of the company together with the announcement of founder exit.

LIMITATION AND FURTHER RESEARCH

This thesis advances our knowledge of the external resource acquisition and entrepreneurial exit behaviour via IPO, but it still has a number of limitations. Only a small portion of entrepreneurial firms are eligible to list in the open market. Most ventures choose to raise money or leave the business through other channels, such as business angels and venture capitalists. Whether the conclusions of studies are also valid for other funding process and quitting routes remains to be further discussed. Meanwhile, the datasets only focus on firms incorporated in UK and further research could be run on entrepreneurial firms listed in other culture and market to test the generalizability of the conclusion.

Another limitation originates from the research method of the studies. The regression analysis only allow us to test the association between the power holding by the founder at the time of IPO and their exit behaviour thereafter. It cannot distinguish between the cases of founders that lost power before IPO and viewed IPO as an opportunity to exit and other founders that lost power during the IPO negotiation and make the exit decision during the process. Field studies could be conducted to further distinguish these two cases.

In terms of the effect analysis of entrepreneurial exit, chapter 4 only discusses the influence of founders' quit from their managerial position. However, as discussed in the chapter 3, entrepreneurs have three exit routes to choose. More research could be conducted to further explore whether different entrepreneurial exit routes may generate different effects over the business.

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