



University of Navarra

EMPLOYEE TRANSITION TO ENTREPRENEURSHIP:
THE INFLUENCES OF FAMILIES AND FIRMS

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Abstract

There is an emerging recognition that employees who transition from organization employment to become entrepreneurs may have identified valuable entrepreneurial opportunities and may subsequently have better entrepreneurial performance than other individuals. However, employees are usually reluctant to transition to entrepreneurship due to the risky income in entrepreneurship compared to a guaranteed income in organizational employment. This dissertation investigates how and why some employees and not others transition to entrepreneurship. It specifically focuses on how family influences may condition this transition decision.

Existing studies in entrepreneurship have highlighted the positive influence arising from parental entrepreneurship activity on their offspring's propensity to become entrepreneurs. This dissertation first, argues that such an influence is dependent on parental performance in entrepreneurship and secondly, provides empirical support for this argument in the context of self-employment using US data. The dissertation shows that, parental failure in self-employment has a negative influence on their offspring's subsequent propensity to transition from organizational employment to self-employment.

The dissertation also investigates the employee transition process which has been overlooked by previous studies. The results show that, employees seek to have an economic safety net and favourable labour market conditions to protect their families against negative economic consequence of possible failure in entrepreneurship. Also, employees may transition to entrepreneurship by joining new firm management teams.

The identification of an entrepreneurial opportunity may not be a necessity for employee transition to occur.

The insights gained from the dissertation indicate two ways in which societies may increase entrepreneurship activity, (i) encouraging employee transition to entrepreneurship, and (ii) encouraging flexible working time arrangements. In essence the dissertation raises the question of whether organization employment is incompatible with employee entrepreneurship activity outside the employer organization.

To my wife

Lucy

and our children

Emmanuel, Mercy, Faith and Joseph

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1 INTRODUCTION

1.1 Motivation for the Dissertation

This dissertation derives from a personal view supported by existing studies that entrepreneurship is good for humanity. By entrepreneurship we mean the process involving the discovery, evaluation and exploitation of opportunities to create future goods and services (Shane & Venkataraman, 2000). The entrepreneurship process is said to generate economic growth through innovation (Schumpeter, 1934), move market towards an equilibrium of supply and demand (Kirzner, 1997), and facilitate the conversion of new knowledge into products and services (Venkataraman, 1997). Consequently, the value of entrepreneurship activities in society persists over longer periods of time than any other functional areas in business (Sarasvathy, 2004). Interest in entrepreneurship is partly driven by realization of this disproportionate effect in addition to the fact that a “market” for entrepreneurs does not exist as happens for other professional careers in business (Venkataraman, 1997).

The entrepreneurship process is affected by (1) macro-level environmental factors (Aldrich, 1999), (2) characteristic of entrepreneurial opportunities (Shane et al., 2000) and (3) individual motivations (Shane, Locke, & Collins, 2003). While recognizing the importance and interaction of these three factors the dissertation focuses on the third factor to answer the question: *Among individuals, where is there a difference in motivations to undertake entrepreneurship activities?* Differences in motivations may help us explain why “some people and not others discover and exploit entrepreneurial opportunities” (Shane et al., 2000: 218). Our study focuses on two sources of variation in individual motivations: (1) parental entrepreneurial background and, (2) organizational employment.

One stream of entrepreneurship literature provides overwhelming empirical evidence that individuals with entrepreneurial parents are over-represented among business founders in general (Dunn & Holtz-Eakin, 2000) and self-employed in particular (Carroll & Mosakowski, 1987; Uusitalo, 2001). Under this stream of literature, “entrepreneurs are family products” due to this parental influence. Theoretically, parents are said to influence their children through a process of role modeling by exposing them to an entrepreneurship career which has a lasting impact on the children subsequent career choices (Bandura, 1986; Krumboltz, Michael, & Jones, 1976). The parental role modeling influence has been shown to increase children intentions to choose entrepreneurship career (Scherer, Adams, Carley, & Wiebe, 1989). However questions remain on (1) whether this influence is always positive (Dunn et al., 2000; Kim, Aldrich, & Keister, 2006; Velamuri & Venkataraman, 2005) and (2) How the acquisition of this parental influences varies with child age when parent was involved in entrepreneurship (Barling, Dupre, & Hepburn, 1998; Johnson, 2002; Sorenson, 2006a). These literature gaps provide one of the two academic research basis for our dissertation.

Another stream of entrepreneurship literature argues that most entrepreneurs originate from existing organizations. Contrary to the popular myth of college drop-out entrepreneurs, most entrepreneurs are “organization products” being directly or indirectly former employees of established firms (Freeman, 1986). It is argued that organizations increase the chances of employees to identify entrepreneurial opportunities by exposing them to potential markets (Audia & Rider, 2005b). Further, organizations provide their employees with technical experience and professional contacts necessary to mobilize the financial and human resources necessarily in the entrepreneurship activity (Stuart & Sorenson, 2003: 48). An important observation is that new firms founded by former employees have better survival and growth

records due to the reputation of former employer firm (Burton, Sorenson, & Beckman, 2002) or employees' experience in a market niche (Christensen & Bower, 1996). Since most new firms are known to subsequently fail (Harting, 2005), a focus on new firms created by employees who transition from organizational employment seems to be a worthy endeavour. The stream of literature on "entrepreneurs as organizational products" has so far failed to consider the influence arising from an employee parental entrepreneurship background. This failure provides the second academic research basis for our dissertation.

1.2 Dissertation Structure

Our dissertation principally aims to bridge the notions of "entrepreneurs as family products" and "entrepreneurs as organizational products". The dissertation comprises of three academic papers. The first paper takes advantage of recent development in the role modelling literature to argue that *though* family background has an influence on an individual's propensity to choose an entrepreneurship career, this influence *may not* always be positive. The second paper is an empirical study to test some of the propositions developed in the first paper in the context of self-employment. The paper uses data from the USA Panel Study Income of Dynamics (PSID) to investigate the propensity to transition to self-employment by employees with parents had an economic failure in self-employment when the employees were growing up. The third paper uses a multiple case study to investigate how and why organizational employees transition to entrepreneurship. However, different from prior studies which focus on employees who transition to become entrepreneurs, our study look at employee transition to become part of new firm management team. The case study also investigates how family considerations may affect the employee transition process.

In overall with the three papers, the dissertation hopes to illustrate that the notion of “entrepreneurs as organizational products” is conditional to that of “entrepreneurs as family products”. Paper one develops the proposition that whereas low performance by parental in entrepreneurship may reduce their offspring’s propensity to become entrepreneurs, the few such offsprings who do become entrepreneurs will have a performance advantage in entrepreneurship compared to children without such a background. The second paper empirically shows that parental failure in self-employment has a negative influence on their offspring’s propensity to transition from organizational employment to self-employment especially if such failure occurred when the offspring’s were young adults. i.e. 18 to 21 years. The last paper shows that employees with family commitments consider the availability of an economic safety net, the job market conditions and if possible initially transition on a part-time basis to reduce the negative economic consequences on the family if the new firm was to fail.

2 THE CONDITIONING EFFECT OF PARENTAL ENTREPRENEURIAL PERFORMANCE ON EMPLOYEE TRANSITION TO ENTREPRENEURSHIP

2.1 ABSTRACT

While one stream of studies in entrepreneurship highlights the positive influence of parental entrepreneurial activity on the children's propensity to become entrepreneurs, a second stream argues that most entrepreneurs originate from existing organizations. We use social learning theory to propose that first, the organizational influence is dependent on the parental influence and second, the parental influence is dependent on parental performance in entrepreneurship and may influence the children performance once they transition to entrepreneurship.

2.2 INTRODUCTION

There is overwhelming evidence that most businesses are family owned, and correspondingly there are numerous studies which highlight the interactions between the two institutions: family and business (Sharma, 2004; Upton & Heck, 1997). Existing literature shows that each institution affects and is affected by the other (Olson et al., 2003). This paper investigates how the interactions of the two institutions influence the motivations of individuals to become entrepreneurs. Interestingly, while one stream of entrepreneurship literature emphasizes the parental family influence, another stream puts emphasis on the business firms' influence¹. This paper uses recent developments in role model literature to develop a theoretical model integrating these two streams and derives some insights from this integration.

Studies in entrepreneurship show that parental entrepreneurship background is one of the most influential factors in children's occupational choice preferences (Scherer et al., 1989) and transition from organizational employment to an entrepreneurial career (Carroll et al., 1987; Sorenson, 2006a). Parental entrepreneurial activity is said to influence their children's entrepreneurial behavior through a process of role modeling (Scherer et al., 1989). Social learning theory argues that individuals look at role models as a way to effectively learn new skills (Bandura, 1986). Parents are especially likely to be role models since they are a major source of the socialization of the child. Empirically,

¹ We use the terms firms, organizations and business firms interchangeably to mean the same thing.

“entrepreneurs’ children tend to both inherit family firms and are in general more willing to start up their own businesses” (Niittykangas & Tervo, 2005: 320). From these arguments entrepreneurs may be seen to be “family products”.

An alternative view is that entrepreneurs are self-made people driven by innovative ideas and hard work using bootstrapped resources in a garage to create new firms (Audia et al., 2005b). This belief has been fuelled in the USA by career success stories of people like Andrew Carnegie, John D. Rockefeller, and more recently Bill Gates and Michael Dell, among others. Furthermore, since US opinions have a great international influence, the “garage belief” is generally accepted in other countries (Cooney, 2005). However, this belief, though widespread in popular press and even among business school students, fails theoretical or empirical support (Audia et al., 2005b). A self-made entrepreneur is the exception, not the rule. In contrast, research shows that most entrepreneurs are directly or indirectly former employees of established firms (Freeman, 1986; Sorenson & Stuart, 2001). Firms increase the chances of employees identifying entrepreneurial opportunities by exposing them to new or poorly served markets (Audia et al., 2005b). Further, employees have “relevant technical experience and professional contacts necessary to mobilize the financial and human resources to create new firms” (Stuart et al., 2003: 48). From these arguments entrepreneurs may be seen to be “organizational products”.

The research stream on entrepreneurs as organizational products has however not considered the family background of the employees who become entrepreneurs. In

particular, it is not clear how parental entrepreneurial activity influences the propensity of a child's (organizational employee's) transition from organizational employment to entrepreneurship². This may be due to the common assumption that parental influence declines after teenage or mid-adolescence (Barling et al., 1998; Gibson & Barron, 2003). However, while prior research on role model influence has focused on children and adolescents (Gibson, 2004), "there is a good reason to think that the importance of role models in individuals' careers does not end at these early ages" (Gibson, 2003: 591). In essence, the influence of a parental entrepreneurial role model may extend into the period after a child becomes an organizational employee.

This paper proposes to develop a theoretical model to integrate the notions of entrepreneurs as "family products" with that of entrepreneurs as "organizational products". Using this model we derive propositions on (i) how parental entrepreneurial background influences an employee's propensity to transition to entrepreneurship, (ii) how the parental influence depends on the parental performance in entrepreneurship, and (iii) how the employee performance in entrepreneurship after transition may be dependent on the parental performance in entrepreneurship. From these propositions we conclude that the influence of organizations on employees' transition to entrepreneurship is dependent on the involvement and performance of parents in entrepreneurial activities. However, the propositions await empirical test in subsequent studies.

² From hereon we use the term children and employees interchangeably depending on the context and whenever possible use the term individuals to refer to both children and employees.

The rest of the paper is structured as follows. First, we review the literature on “entrepreneurs as organizational products” and highlight that these studies have failed to recognize the possible influence of parental entrepreneurial background on an employee’s propensity of transition to entrepreneurship from organizational employment. Second, we use social learning theory to review the literature on “entrepreneurs as family products” and highlight how this parental influence is dependent on parental entrepreneurial performance and the employee’s human capital. We then use the notion of learning from small failures (Sitkin, 1992) to argue that low performance by an entrepreneurial parent may improve a child’s performance in entrepreneurship. We then summarize our literature review and propositions with a model which makes evident opportunities for future research in the interface of entrepreneurs as both “family products” and “organizational products”. A summary of the propositions developed in this paper appear in the appendix.

2.3 LITERATURE REVIEW

2.3.1 Entrepreneurs are Organizational Products

A small but growing stream of entrepreneurship literature argues that most entrepreneurs are directly or indirectly former employees of existing firms. The reasons why most entrepreneurs originate from existing firms can be grouped under either “pull” or “push” mechanisms. Pull mechanisms are argued to increase an employee’s knowledge of opportunities in particular sectors (Shane, 2000) and self-confidence in new firm creation thus encouraging a transition to entrepreneurship (Audia & Rider, 2005a). In contrast, push mechanisms arise out of employee dissatisfaction with current organizational

employment conditions in comparison with expectations in an entrepreneurial career (Moore & Muller, 2002).

The three reasons why existing firms may have a “pull” effect on employees towards entrepreneurship were postulated in the seminal paper by Freeman (1986). Existing firms provide employees with (1) knowledge about entrepreneurial opportunities by exposing them to poorly served markets or new markets; (2) knowledge on models of organizing new firms; and, (3) ability to attract and allocate resources. These arguments are supported by career history studies which highlight the importance of prior industry experience on an individual’s ability to recognize and exploit entrepreneurial opportunities (Shane, 2000). Further, prior joint work by the foundation team (Eisenhardt & Schoonhoven, 1990), reputation of the former employer firm (Burton et al., 2002) or experience in a market niche (Christensen et al., 1996) have been shown to improve new firm survival and growth. These factors increase an employee’s confidence in self-employment hence increasing the chances of a transition to entrepreneurship (Audia et al., 2005a).

Related to these “pull” arguments are studies which investigate factors that encourage employee transition to entrepreneurship from an economic perspective. These studies stress that employees transition to entrepreneurship in order to exploit entrepreneurial opportunities discovered in their previous jobs but which may have been unattractive to their employer firms for economic reasons (Cassiman & Ueda, 2006; Hellmann, 2006). In support of economic pull mechanisms are a few studies which seek to establish which

factors make firms more conducive to generating entrepreneurs. The entrepreneur generation rate has been found to increase with level of firm innovation (Gompers, Lerner, & Scharfstein, 2005) and decreases with firm age and size (Sorenson, 2006b).

In contrast, “push” mechanisms encourage employee transition to entrepreneurship in expectation of better remuneration for their human and social capital. This research stream shows that the propensity of employees to transition to entrepreneurship depends on (1) opportunity costs (Amit, Muller, & Cockburn, 1995), (2) relationship between income and ability for low ability individuals (Velamuri et al., 2005) and, (3) professional proximity to entrepreneurs (Stuart & Ding, 2006). In support of the industrial cluster arguments, geographical areas generate a greater number of new firms similar to those existing within that given area (Sorenson & Audia, 2000; Stuart et al., 2003). Close proximity to founders of small firms in industrial clusters encourages employees to transition to entrepreneurship. The larger the number of entrepreneurs the easier it is for employees to observe them and learn from them about entrepreneurial activities increasing the propensity of the employees’ transition. (Mueller, 2006).

Firm size is an important determinant on whether or not an employee transitions to entrepreneurship. Employees of small firms are more likely to experience “push” effects for two reasons: first, close proximity to the founders of these firms enables such employees to learn first hand information about the start-up process including how to solve common problems in this process. Second, the few promotion opportunities for employees in small firms implies that one way for such employees to maximize their life-

time utility may involve transitioning to entrepreneurship and creating a new firm themselves (Mueller, 2006). In contrast, employees working in large firms are less likely to transition to entrepreneurship again for a combination of two reasons. First, as the firm grows larger, employees will tend to have more contacts within the firm than outside it. To the extent that contacts internal to the firm are less heterogeneous than those external to the firm, increase in firm size reduces exposure to variety in sources of information which is one of the main sources of entrepreneurial opportunities (Dobrev & Barnett, 2005). Secondly, employees in large firms are less likely to exploit an entrepreneurial opportunity should one arise. The literature advances three and possibly complementary reasons for this behavior all related to the influence of increased formalized work organization. Such an increase in bureaucracy may (i) influence the attitudes and mental dispositions of the employees against entrepreneurial behavior, (ii) limit the development of skills necessary for successful entrepreneurship, and (iii) increase the job stability and internal routes of advancement within the employer firm (Sorenson, 2006b).

The reviewed studies on “entrepreneurs as organizational products” have an economic bias which puts more emphasis on what triggers the transition to entrepreneurship and not on what may influence the disposition for such a transition (Scott & Twomey, 1988). These studies have not considered why some employees may identify opportunities and not transition to exploit them, yet individual differences “exert a powerful influence over who exploits entrepreneurial opportunities and who does not” (Shane, 2003: 61). This study investigates the influence of parental entrepreneurial activity on an employee’s decision to transition from organizational employment to an entrepreneurial career.

2.3.2 Entrepreneurs are Family Products

The existing studies relating family and entrepreneurship have focused on entrepreneurship in the family business (Upton et al., 1997), demographic changes as source of entrepreneurial opportunities and new firms (Aldrich & Cliff, 2003), and the importance of family background towards an entrepreneurial career choice (Carroll et al., 1987)³. A family background of parental entrepreneurial activity is an important determinant of the child's perceptions of an entrepreneurial career (Schindehutte, Morris, & Brennan, 2003). There is consistent empirical evidence that "parents in some way influence their offspring's selection of an entrepreneurial career" (Scherer et al., 1989: 54).

The mechanisms through which parents influence their children's choice of an entrepreneurial career have been grouped under two headings: exposure or closure. Exposure arguments are based on the influence of parental status and socialization process. The argument is that "parents' social position exposes children to experiences and normative expectations that have a lasting impact on subsequent career choice" (Sorenson, 2006a: 1). In this view, children learn by observing their parents' entrepreneurial activities and adopting what they learn (Bandura, 1977). In contrast, closure arguments attribute the transmission of entrepreneurial bias from parents to

³ For an interesting comparison between a new firm growth process and a child's growth process see (Cardon, Zietsma, Saporito, Matherne, & Davis, 2005).

children through transfer of financial and social resources. In other words, entrepreneurial “parents may help their children overcome barriers to entry” into entrepreneurship (Sorenson, 2006a: 2). An important distinction between the exposure and closure arguments is that while exposure encourages children to *try* to enter into entrepreneurship, closure improves the likelihood that they will *succeed* upon entry into entrepreneurship (Sorenson, 2006a: 2)⁴.

Researchers have found support for the exposure but not the closure hypothesis both when entrepreneurship is measured in terms of new firm formation (Delmar & Davidsson, 2000; Mueller, 2006) and self-employment (Carroll et al., 1987; Sorenson, 2006a)⁵. These studies have focused on nascent entrepreneurs i.e., people who are in the process of creating a new firm. Based on data from Sweden, Delmar and Davidsson (2000), compared a sample of 405 nascent entrepreneurs with a control group of 608 individuals not in the process of creating new firms. They found that while 49.6% of the nascent entrepreneurs had self-employed parents, only 37.3% of the control group had self-employed parents. In conclusion, they noted that self-employed parents were “one of the variables that exhibited among the largest differences observed” (Delmar et al., 2000: 12). This conclusion is supported by a German study based on 7,059 employees, 476 of whom indicated a 50% chance of becoming nascent entrepreneurs in the subsequent two

4 Emphasis in the original

5 New formation and self-employment are the two principal ways in which empirical studies measure entrepreneurship (Shane, 2003:62).

years (Mueller, 2006)⁶. This study found that “every seventh nascent entrepreneur had parents that were self-employed compared to every tenth employee”.(Mueller, 2006: 53)⁷. In contrast, Kim et al.(2006) using a US sample of 830 nascent entrepreneurs and a control group of 639 individuals found no evidence of the presumed positive influence of parental self-employment. Among other reasons, they argue that the positive parental self-employment influence on their offspring’s propensity to entrepreneurship may be dependent on parental performance in entrepreneurship. We address the issue of parental performance in entrepreneurship in a later section.

Empirical evidence abounds showing that children with a self-employed parent have a higher propensity to self-employment. This influence has been shown in studies from USA (Dunn et al., 2000; Hundley, 2006), Germany (Carroll et al., 1987), Sweden (Delmar et al., 2000), Finland (Niittykangas et al., 2005; Uusitalo, 2001), Britain (Taylor, 2001) and Denmark (Sorenson, 2006b). These studies consistently support the notion that “individuals with a self-employed parent are more likely to be self-employed” (Hundley, 2006: 377). This influence is still significant even after controlling for the parents’ wealth effect (Carroll et al., 1987), in further support of the parental role model exposure rather than the closure hypothesis. In summary, these studies suggest that “parental role modeling plays a crucial role in generating transmission of self-employment” (Sorenson, 2006a: 6).

⁶ Nascent entrepreneurs are individuals who are in the process of creating a new firm.

⁷ This ratios translate to approximately 14% nascent entrepreneurs had self-employed parents compared to 10% of employees who had self-employed parents.

Particularly important to our study are prior studies which focus on employee transition from organizational employment to entrepreneurship (Dunn et al., 2000; Kim et al., 2006; Sorenson, 2006b, , 2006a). These studies focus on distinguishing whether parental influence on children's entrepreneurial career choice is through exposure or closure mechanisms. These studies mostly use data based on individuals initially in organizational employment who then transition or are in the process of transitioning to entrepreneurship. Consequently, these studies implicitly assume that parental entrepreneurial background still has an influence on the employee even after a period of organizational employment. Our study uses recent developments in the role model literature to derive a theoretical basis for this assumption which has already received empirical support.

2.4 INFLUENCE OF PARENTAL ENTREPRENEURIAL ROLE MODEL

2.4.1 Children's Choice of Initial Entrepreneurial Career

Role models have been studied extensively under social learning theory. Social learning theory (SLT) proposes that one way by which learning can occur is through the observation of behaviors in others referred to as role models (Bandura, 1977). SLT urges that "individuals attend to models because they can be helpful in learning new tasks, skills and norms" (Gibson, 2004: 136). Role models can efficiently convey to individuals the performance standards, norms and styles of enacting a given role (Ibarra, 1999). Having role models who exemplify possible career choices is a critical aspect of an individual's development (Krumboltz et al., 1976) including career choices (Schindehutte

et al., 2003). Though different people may be role models at different times during career development (Gibson et al., 2003), parents are most likely to serve as significant role models on their children's career choices (Barling et al., 1998).

Some empirical studies have investigated how the presence of a parental entrepreneurial role model influences young adults' career preferences. One study based on 366 junior and senior business administration students found that the simple presence of an entrepreneurial parent increased preference for an entrepreneurial career choice compared to those with no role model exposure (Scherer et al., 1989). Similarly, in their study of 23 families owning businesses, Schindehutte et al.(2003) found that owning a business was the most popular career choice among young adults in these families. More support was found in a three country international study of 436 undergraduates in which children of self-employed parents were found to have a much higher aspirations to become self-employed than those without such role models (Scott et al., 1988). However, longitudinal studies are still lacking to investigate whether the students' preference predicts their actual choice of an entrepreneurship career (Scherer et al., 1989).

2.4.2 Employee Transition to Entrepreneurship

Even though children with an parental entrepreneurial role model may have a high preference for an entrepreneurial career, the actual transition to entrepreneurship may only occur after an initial period of organizational employment. The possibility of such a delayed influence comes from two studies based on young adults' career preferences. In their study, Schindehutte et al (2003) found that 72% of the young adults from families owning businesses wanted to run their own business at some point in the future and not

just immediately after completing their studies. The second study is based on a sample of 412 young adults with mean age of 27 years from families owning businesses. This study found that, even though 47% of these young adults were working in family businesses, only 22% had joined the family business on leaving university or college. “The rest had prior work experience elsewhere for an average of 5 years and ranging from 6 months to 30 years” (Birley, 2002: 11). Further, of the 39 young adults who intended to join the family business at some later stage, 70% intended to work elsewhere first. Even though transiting to family business may not be the same as transition to entrepreneurship this result suggests that “people may change their minds about their career focus at any time” (Birley, 2002: 11).

Entrepreneurship scholars have so far not explicitly investigated how a parental entrepreneurial role model influences the propensity of an employee’s transition to entrepreneurship subsequent to a period of organization employment. Similarly, studies on role model influences on career choice have focused almost exclusively on early career stages of exploration, entry and career choice (Krumboltz et al., 1976). However, some authors have argued that aspirations, work values and attitudes, though shaped by early adulthood, remain largely fixed thereafter (Barling et al., 1998). Consequently, a higher propensity to entrepreneurship after organizational employment may be seen to be a manifestation of positive attitudes developed at an early age when the employee was exposed to parental entrepreneurial activities.

Recent studies within organizations have shown that role models are useful in young employees making transitions to new roles. Ibarra's (Ibarra, 1999) study of investment bankers and consultants found the importance of role models in helping young employees make transitions to managerial roles. The study found that young employees observed and adapted their role models' professional traits and styles to construct different "possible selves" from which they could then choose what best suited them. In support of this assertion, Gibson (2003), using a qualitative study of 43 managers in professional services found that respondents in the early career stage used role models to learn how to perform tasks competently and efficiently. Gibson and Baron (2003) have consequently argued that "it is likely that employees also seek role models outside the organization, and use these role models to foster job mobility" (Gibson et al., 2003: 207). Additionally, "exemplary role models from an individuals past... may also exert motivational power, even several years later" (Gibson, 2004: 142). Based on these studies we argue that employees exposed to parental entrepreneurial role models may have a higher propensity to transition to entrepreneurship than employees without such a role model.

One study has distinguished parental self-employment influences on children's propensity to self-employment as a first job or subsequent to initial entry to the labor force. Carroll and Mosakowski's (1987) study is based on a (West) German national representative sample of 2,172 individuals. Their results are interesting in that whereas they find no influence of parental self-employment on the children's initial choice, a significant influence of parental entrepreneurial role model is found on later transitions

from organizational employment to self-employment. Contrary to the traditional role model literature where the influence on the observer's behavior occurs soon thereafter, the influence of parental role model seems to occur much thereafter.

Proposition 1: The propensity of organizational employees to transition to entrepreneurship is higher for an employee with a parental entrepreneurial role model than for an employee with no such role model.

2.5 SOCIAL LEARNING THEORY AND PARENTAL ENTREPRENEURIAL PERFORMANCE

2.5.1 High versus Low Parental Entrepreneurial Performance

Whereas existing studies in entrepreneurship have only looked at the presence of a parental entrepreneurial role model, the role model's performance is also worth considering. Social learning theory argues that it is not just the presence of role model parents but also how positively their status or performance is perceived that influences the children's intentions to follow the same career (Krumboltz et al., 1976). Career choice studies indicate that children perceive their parents' work satisfaction and this perception affects their work beliefs and attitudes. Two critical findings from career choice studies are relevant to our study: (1) "from third and fourth grade children are aware of their parent's job satisfaction" and, (2) "children who notice their parent's job satisfaction develop positive work attitudes" (Barling et al., 1998). A higher parent entrepreneurial performance would be expected to increase parent's job satisfaction as an entrepreneur,

consequently increasing the children's positive attitudes towards an entrepreneurial career.

Empirical evidence shows that the influence of parental entrepreneurial role model on children's preference for an entrepreneurial career is dependent on the role model performance. In support of this assertion, a study of 366 business school students found that preference for an entrepreneurial career was enhanced by exposure to a high performance parental entrepreneurial role model compared to individuals exposed to a low performance one (Scherer et al., 1989). Similarly, a study of 23 women owned businesses found consistent evidence of a positive relationship between positive family experiences by the mother and her businesses and preference for an entrepreneurial career by young adults from these families (Schindehutte et al., 2003). In the US, sons of more successful self-employed parents were found to be "more likely to enter self-employment than sons of less successful entrepreneurs, conditional upon common tastes and so on" (Dunn et al., 2000: 302). In Germany, comparison between 405 nascent entrepreneurs and a control group of 608 individuals found that while 74% of the nascent entrepreneurs had formed a very positive or positive impression of self-employment by observing family and friends, only 53% of the control group had similar impressions (Delmar et al., 2000).

Proposition 2: The propensity of employees with a high performance parental entrepreneurial role model to transition from organizational employment to entrepreneurship is higher than that of employees with no parental entrepreneurial role model.

2.5.2 Influence of Low Parental Entrepreneurial Performance

Whereas role models are generally considered positive, social learning theory indicates that people can also learn by observing negative role models. Positive role models provide the observer with role-expectation information, performance standards and skill expertise, which can contribute to feelings of self-efficacy (Bandura, 1977). Positive role models provide inspiration to the individual on how future successful achievements can be accomplished (Gibson, 2004). “Individuals seek to become like their positive role models because these exemplars can help individuals define who they are: as professionals and as people” (Gibson, 2003: 598). In essence, positive role models inspire people “by illustrating an ideal desired self, highlighting possible achievement that one can strive for and demonstrating the route to achieving them” (Lockwood, Jordan, & Kunda, 2002: 854). From these arguments, parents perceived by their children to have a high entrepreneurial performance may be considered to be positive role models towards an entrepreneurial career.

Individuals can also be motivated by negative role models. These are models which inspire people “by highlighting mistakes that must be avoided so as to prevent them” (Lockwood et al., 2002: 854). Examples of negative role models are victims of traffic accidents used in campaigns to promote safe driving as they represent “behaviors and attitudes that individuals should seek to avoid” (Gibson, 2004: 145). Scherer et al (1989) found that children exposed to a low performance parental entrepreneurial role model developed negative attitudes towards an entrepreneurial career compared to children with no such role model. Whether these negative attitudes influence the child’s final choice

regarding an entrepreneurial career still awaits empirical support⁸. However, in self-employment, research shows that attitudes toward self-employment determine intentions to become self-employed, and that intentions to become self-employed determine actual entry into self-employment (Kolvereid & Isaksen, 2006).

Proposition 3: The propensity of employees with a low performance parental entrepreneurial role model to transition from organizational employment to entrepreneurship is lower than that of employees with no parental entrepreneurial role model.

2.5.3 High Individual Human Capital

The presence of a low performance parental entrepreneurial role model may at times encourage children to join an entrepreneurial career. First, for children in certain contexts such as poor rural neighborhoods, there may be few viable career options except trying out one's own business (Scherer et al., 1989). Secondly, having observed their parents, children may believe they can profit from and avoid errors made by their parents. This may explain the interesting observation that

“it appears that in spite of hardships so often experienced by the father, the son frequently follows his footsteps because, paradoxically enough, familiarity with the fact that obstacles have to be overcome in some way has an assuring quality.

⁸ Similarly, a study in career choice shows that “children who watch their parents experiencing layoffs and (job) insecurity perceive this insecurity and develop negative work beliefs that then predict their work-related attitudes” (Barling et al., 1998: 116).

Moreover, early exposure to risk may increase one's tolerance to it." Quoted in (Scherer et al., 1989: 66)

The push into "necessity" entrepreneurship by context and parental influences will have more pronounced impact on a child or employee with a low human capital for whom the possibility to get into alternative organizational employment is more limited. In support of these assertions, empirical evidence shows that individuals with low abilities have a higher propensity to transition from paid employment to entrepreneurship (Velamuri et al., 2005). Our interest is however on how the presence of a low performance parental entrepreneurial role model influences the transition into "value creating" entrepreneurship of an employee with high human capital⁹.

The human capital literature in entrepreneurship argues that highly capable individuals have a higher propensity to take up an entrepreneurial career. The most commonly used measures of human capital are education, career experience, social position and age (Shane, 2003: 69-75). Whereas the first three measures have a positive effect, age has a curvilinear relationship with transition to entrepreneurship¹⁰. In general people of very

9 "Necessity" versus "value creating" entrepreneurship is used here to differentiate whether the child or employee chooses entrepreneurship out of lack of alternative type of employment or due to attraction to value creating entrepreneurial opportunities respectively.

10 Initially age increases the propensity to transition to entrepreneurship because individual's knowledge and skills increase with age. However, as people age, their willingness to bear uncertainty decreases due to the short time horizon and increase in opportunity costs since individual income tends to increase (Shane, 2003: 89). (Kim et al., 2006: 9) argue that possibly due to the increasing importance of education in service

low and very high ability are more likely to transition from organizational employment to self-employment in comparison to those of moderate ability (Velamuri et al., 2005). Individuals with low (high) ability are more likely to transition and pursue necessity (value creating) entrepreneurial opportunities.

As previously argued, exposure to a low performance parental entrepreneurial role model will lower the propensity of an employee to transition to entrepreneurship compared to individuals without such a role model. By extension, a low performance parental entrepreneurial role model will also lower the propensity for entrepreneurship of employees with high human capital compared to similar individuals without such a role model.

Proposition 4: The presence of a low performance parental entrepreneurial role model will reduce the propensity of an employee with high human capital to transition to entrepreneurship compared to similar employees without such a role model.

2.6 LOW ENTREPRENEURIAL PARENT PERFORMANCE AND EMPLOYEE ENTREPRENEURSHIP PERFORMANCE

Whereas exposure to a parental entrepreneurial role model may influence employee transition to entrepreneurship, there is no empirical evidence to indicate whether such

and information based industries but not so much in other industries, the relationship between education with transition to entrepreneurship is ambiguous

exposure gives these employees any entrepreneurial performance advantage over other employees with no such role model. For example, Sorenson (2006a) found no statistically significant difference in incomes of self-employed individuals with self-employed parents and individuals whose parents were not self-employed. However, this study does not differentiate these children based on their parental entrepreneurial performance. There are two reasons why an individual with a low performance parental entrepreneurial role model may have a higher performance in entrepreneurship compared to an individual without such a role model. Such individuals may (1) be exploiting higher value opportunities and, (2) have learnt how to avoid low performance.

Transition to entrepreneurship is an important decision since it implies sacrificing potential or current income in paid employment based on expectations of future income in an entrepreneurial career (Velamuri et al., 2005). In Finland, based on a labor force survey of 1997, self-employed individuals were found to work 47.8 hours weekly compared to 37.7 hours for those in paid employment. Further, self-employed individuals earned on average 30,000 marks less than those in paid employment and the variance in earnings was higher in self-employment (Uusitalo, 2001). These results indicate that self-employment is both more demanding in work hours and provides lower and riskier earnings than paid employment. On average, individuals would transition to entrepreneurship when their expectations in entrepreneurship are higher than those in paid employment (Amit et al., 1995). Having witnessed low entrepreneurial performance in their parents, individuals will most likely be willing to make such a transition only if they identify what they perceive to be high value entrepreneurial opportunities. The

negative influence of low performance parental entrepreneurial role model can only serve to make the decision to transition to an entrepreneurial career even more stringent on the perception of a high value entrepreneurial opportunity.

There are two arguments why individuals with a low performance parental entrepreneurial role model may be better in avoiding low performance than individuals without such a role model. Firstly, it has been argued that children with low performance parental entrepreneurial role models may develop higher education and training aspirations than those individuals with no role models, by foreseeing the value of higher education and training towards being more successful than their low performance parents (Scherer et al., 1989: 66). Several studies show that the higher education of an entrepreneur improves the survival, growth and profitability of the firms they create (Shane, 2003: 72-75).

The second reason why individuals with a low performance parental entrepreneurial role models may have performance benefits comes from the argument that individuals learn by being exposed to low performance or even failure. Within organizations, small failures are argued to increase search for new ways and motivation to alter existing routines for corrective action (Sitkin, 1992). Some authors have proposed that entrepreneurs learn from failure but whether and how this occurs is little understood (Shepherd, 2003). Evidence that individuals can learn from failures of other people comes from a study in which fire fighters were exposed to real previous successful and failed cases in fire fighting. It was found that those fire fighters who were exposed to failed fire fighting

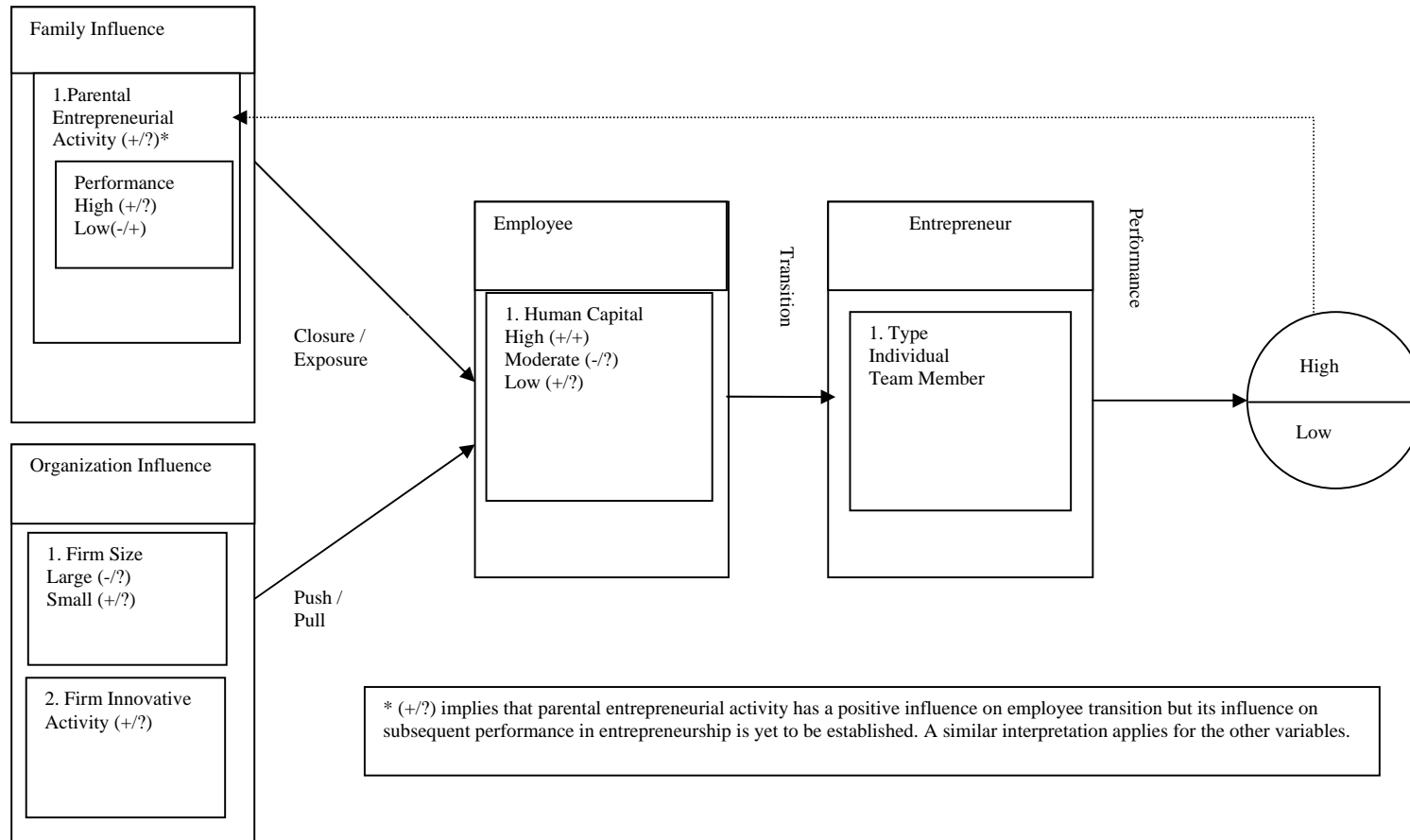
cases were “able to generate more alternative actions” compared to the fire fighters exposed to the successful fire fighting cases (Joung, Hesketh, & Neal, 2006: 296). This study supports the notion that individuals can learn by observing the mistakes of other people, thus enhancing the likelihood of an improved performance. Similarly, employees with a low performance parental entrepreneurial role model may have learnt how to avoid low performance by observing their parents’ activities (Scherer et al., 1989). The combined effect of high value opportunity and knowledge on how to avoid low performance may increase the entrepreneurial performance of individuals with a low performance parental entrepreneurial model compared to similar individuals with no such role model.

Proposition 5: The entrepreneurial performance of employees with a low performance parental entrepreneurial role model will be higher than that of similar individuals with no such role model.

2.7 ENTREPRENEURS ARE FAMILY AND ORGANIZATION PRODUCTS

Our literature review and propositions lead us to conclude that both families and firms influence employees’ propensity to transition to entrepreneurship. Figure 2-1 represents a model which summarizes the main factors and corresponding variables contributing to the mechanisms through which families and firms

Figure 2-1: Family and organizational influences on employee transition to entrepreneurship



influence an employee transition to entrepreneurship and subsequent performance. A feedback from entrepreneurial performance to the next generation provides a dynamic component to the model. As an illustration and a key contribution of this study, the model shows that while low parental performance in entrepreneurship may reduce the employee transition to entrepreneurship, it may result in an improved employee performance for those that end up making the transition

The models illustrates that whereas the family influences act through exposure or closure mechanisms, the organization influences act through a push/pull mechanism. As of yet, the literature has identified parental entrepreneurial activity as the only factor emanating from the family which has a positive influence on employee transition to entrepreneurship. In line with our study, the model shows that this influence is dependent on parental entrepreneurial performance. Organizational influences have been shown to depend on both firm size and innovation rate. From the reviewed literature, employee human capital interacts with influences emanating from both the family and organization. Though outside the scope of this study, researchers have shown that employees may transition to be an individual entrepreneur or as a member of an entrepreneurial team¹¹. Finally, the model points to the importance of the performance outcome after transition due to the possible feedback to future generations of employees.

The model shows that entrepreneurship scholars have made substantial progress in identifying how different variables influence the propensity of an employee to transition to entrepreneurship.

¹¹ For a recent literature review on entrepreneurial team see (Cooney, 2005)

However much remains to be done in respect to influences on entrepreneurial performance. The model makes evident the research opportunities to empirically establish the direction of the influences emanating from the different variables on either or both employee transition and subsequent performance in entrepreneurship. More importantly, the proposed model helps to see opportunities for future research on the interactions of entrepreneurs as family and organizational products. For example, the model allows for the inclusion of other family or parental entrepreneurial activity aspects that may influence employee transition to entrepreneurship. An interesting question emanating from the model is whether other family aspects, beyond parental entrepreneurial activity, may have an influence on other aspects of employees, beyond transition to entrepreneurship.

2.8 FURTHER RESEARCH AND CONCLUSION

Our literature review highlights that the influence of parental entrepreneurial role model may extend beyond the initial career choice and into the period after initial organization employment. Recent developments in social learning theory on role models provide the basis to argue that this influence may increase the propensity of employees' transition from organizational employment to entrepreneurship. In this sense, entrepreneurs may be seen to be both "family products" and "organizational products". Our propositions lead to the interesting observation that while a low performance parental entrepreneurial role model may reduce the propensity of the employee's transition to entrepreneurship, those who do transition may have a performance advantage over those without such a role model. The appendix to this paper provides a summary of the propositions developed indicating direction of proposed influences. In the process of this

literature review and proposition development some opportunities for further research have become apparent.

First is the lack of research on how parental entrepreneurial failure influences the propensity of children towards an entrepreneurial career and subsequent performance in entrepreneurship. This is an important literature gap given that most entrepreneurial activity fails (Shepherd, 2003), and the few existing studies on entrepreneurial failure show that this may have no economic impact on entrepreneurs (Harting, 2005)¹². The possible non-economic impact of entrepreneurial failure seems to have been overlooked. The propositions put forward in this paper go a step towards trying to fill this literature gap but these propositions still await empirical support.

Secondly, existing studies on employee transition from organizational employment to entrepreneurship have focused on the “why” (Amit et al., 1995; Velamuri et al., 2005) and “when” (Hellmann, 2006; Stuart et al., 2006) this transition occurs. In summary, employees will be expected to transition to entrepreneurship when they discover an entrepreneurial opportunity whose perceived opportunity cost is higher than remaining in employment given the employees’ human and social capital. Whereas some employees may discover entrepreneurial opportunities and wish to transition, only a few may actually go ahead and do it since “not all discovered opportunities are brought to fruition” (Shane et al., 2000: 222). This creates the third literature gap on “how” the transition process actually occurs and which factors influence this process. An

¹² Similar bias against failure exist in studies on employee training (Joung et al., 2006) and role models (Gibson, 2004)

investigation on the transition process may provide some insights as to why some people and not others exploit the opportunities that they discover (Shane et al., 2000).

Recent studies on the interface between family business and entrepreneurship have proposed that families' demographic changes may be a source of entrepreneurial opportunities (Aldrich et al., 2003). To complement these studies, our study argues that families may exert an influence on children's perceptions towards entrepreneurship even after organizational employment. This study may also generate interest on how firms can improve corporate entrepreneurship rate and performance by recognizing the influences of parental entrepreneurial influences on the employees' dispositions towards entrepreneurship.

Finally, our study highlights the need for research on how employee's activities outside the organization may have an impact on their activities within the organization. While there has been an upsurge of studies of business to family effects, our study is in line with other calls for studies on the neglected opposite effect: family to business effects. While recognizing that organizations will have limitations in influencing their employee's external environment, a study on which of these external environments, other than the family, may influence particular aspects of employee behavior may be a worthwhile endeavor.

2.9 APPENDIX

Table 2.1: Parental entrepreneurial activity influence on employee transition

Propositions on influences on propensity for employee transition to entrepreneurship	Proposition number (direction of influence)
Parental exposure	P1 (+)
Parental exposure + high performance	P2 (+)
Parental exposure + low performance	P3 (-)
Parent exposure + low performance + employee high human capital	P4 (-)

Table 2.2: Parental entrepreneurial activity influence on employee performance in entrepreneurship

Proposition on influences on Employee Performance in entrepreneurship	Proposition number (direction of influence)
Parent exposure + low performance	P5 (+)

3 THE INFLUENCE OF PARENTAL SELF-EMPLOYMENT ACTIVITY FAILURE ON THEIR OFFSPRINGS' TRANSITION FROM ORGANIZATIONAL TO SELF-EMPLOYMENT

3.1 ABSTRACT

Parent's self-employment activity has been shown to have a positive influence on their children's subsequent choice of self-employment as a career. Previous studies have however not considered in which age group this influence occurs and its dependence on parental performance in self-employment. This paper uses social learning theory to argue that this influence is first, more pronounced if parental self-employment activity occurs when the child is a young adult and second, that it may not exist in case of the parents' economic failure in self-employment. Using the US PSID dataset we find empirical support for both hypotheses.

3.2 INTRODUCTION

There has been abundant empirical evidence that parental self-employment activity has a significant positive influence on their offspring's propensity to become self-employed. In particular, employees whose parents were in self-employment or owned a family business have a much higher propensity to become self-employed than employees without such a background. Empirical evidence has been found in many studies including those from Britain (Taylor, 2001), Denmark (Sorenson, 2006a), US (Dunn et al., 2000) and (West) Germany (Carroll et al., 1987). A recent review of these empirical studies concluded that "entrepreneurs' children tend to both inherit family firms and are in general more willing to start up their own businesses" (Niittykangas et al., 2005: 320)¹³.

Even though there is widespread agreement on the positive influence of parental self-employment on their children subsequent entry to self-employment, debate on how this influence operates continues. Some studies argue that parental influence operates through "exposure" mechanisms in that children exposed to self-employed parents are more likely to look at self-employment as a legitimate "alternative to conventional employment" (Carroll et al., 1987: 576). A different set of studies argues for the closure mechanisms in that self-employed parents may facilitate their children's access to financial capital and social capital which facilitate entry to

¹³ We use the terms offspring, child and employee to refer to an individual in relation to their parents depending on the context.

self-employment (Sorenson, 2006a). A few recent studies find support for the “exposure” but not the “closure” hypothesis (Hurst & Lusardi, 2004; Kim et al., 2006)¹⁴.

The debate on the “exposure” vs. “closure” mechanisms is tied to a fundamental question in entrepreneurship activity: whether differences in individual propensity to enter self-employment reflect differences in access to entrepreneurial opportunities and resources, or differences in the ability and desire of individuals to pursue the opportunities that arise (Thornton, 1999). This paper contributes to this debate by investigating *when* the parental influence actually occurs, in contrast from *how* it manifests itself, which has been the main focus of prior studies. The first hypothesis of this paper argues that the influence of parental self-employment depends on a child’s age when the parents were in self-employment.

Some studies have found that parental influence on their offspring’s propensity for self-employment is more pronounced with better parental performance in self-employment (Dunn et al., 2000; Hundley, 2006). These findings are in agreement with social learning theory on role models which posits that it is not just the presence of role model parents but also how positively their status or performance is perceived that influences the children’s intentions to follow the same career (Bandura, 1986; Krumboltz et al., 1976). However, researchers have not yet investigated how parental economic failure in self-employment influences their offspring’s propensity towards a self-employment career. This is an important literature gap given that most entrepreneurship, and by extension, self-employment activity fails (Harting, 2005). The second main hypothesis of this paper is that parental self-employment activity failure may have a

¹⁴ The fact that both exposure and closure mechanism may be operational at the same time makes the issue of disentangling their separate influences’ empirically difficult (Sorenson, 2006a).

negative influence on their children's later choice to become self-employed especially if such failure occurs when the child is a young adult meaning between ages 18 to 21 years. Using the US PSID dataset we find empirical support for this hypothesis. However, a comforting result is that employees whose parent's failed in self-employment are not less likely to transition to self-employment in comparison to employees whose parent's were never self-employed. Replications using other datasets and from outside the US are necessary to confirm the robustness of the results obtained in this paper.

3.3 WHEN PARENTAL INFLUENCE OCCURS

Role models have been studied extensively under social learning theory. Social learning theory proposes that one way by which learning can occur is through the observation of behaviors in others referred to as role models (Bandura, 1977). Having role models who exemplify possible career choices is a critical aspect of an individual's development (Krumboltz et al., 1976) including career choices (Miers, Rickaby, & Pollard, (In Press); Schindehutte et al., 2003). Parents are most likely to serve as significant role models on their children's career choices (Barling et al., 1998) by influencing their offspring aspirations' and work values in late adolescence and early adulthood (Halaby, 2003; Johnson, 2002).

Previous studies in entrepreneurship have failed to investigate whether there is critical age group within which "exposure" to entrepreneurial activity may have its highest impact. This is an important gap in the entrepreneurship literature given that such parental influence only manifests itself much later and mostly after an initial period of children being employed by existing organizations (Carroll et al., 1987). Previous researchers in entrepreneurship have advocated the

view on entrepreneurship occupation as a career (Carroll et al., 1987; Dyer, 1994). Building on these studies we seek guidance from career theory literature on how parental influence towards a self-employment career may vary with a child's age when the parent was self-employed.

A seminar paper by Krumboltz (1976) proposed a social learning theory on careers highlighting how educational and occupational preferences and skills are acquired and how selections of courses, occupations, and fields of work are made. More importantly, the paper argued that parents were crucial role models in shaping the preferences of their children career choices. Recent career theory studies argues that from as early as third and fourth grade, children are able to perceive their parent's job satisfaction (Barling et al., 1998: 112). Further, parents are said to have their greatest influence on children values during late adolescence and early adulthood (Turner & Lapan, 2002). Based on these career theory studies we expect the influence of parental self-employment activity on the propensity of their children to be self-employed to be more pronounced if the parent was self-employed when the children was in the critical period of transition from childhood to adulthood.

Studies in life course models also contribute in understanding the dynamics of workers lives and experiences as individuals move from one life stage to another (Halaby, 2003; Johnson, 2002). From these studies, the usual spread of the transition to adulthood starts in the age 19 to 20 years (Johnson, 2002). In a study of how social values during the childhood to adulthood transition period influence subsequent job values, social values were measured when the respondent were 18 years of age (Halaby, 2003). There is growing evidence that occupational inspirations change considerably and work values undergo major changes beginning from this age (Johnson, 2002) In line with these studies, we define individuals with age between 18 and 21 years as "young

adults”. In the US education systems, individuals at this age are mostly undergoing university education before subsequently joining the labour market.

Hypothesis 1: The influence of parental self-employment activity on their children propensity to become self-employed is higher if the parents are self-employed when the children are young adults (18 – 21 years)

3.4 INFLUENCE OF PARENTAL SELF-EMPLOYMENT ACTIVITY FAILURE

Social learning theory argues that from a young age, children perceive their parents’ work satisfaction and this perception affects their work beliefs and attitudes (Barling et al., 1998). In support to this performance argument Dunn and Holtz-Eakin (2000:301-302) using “either time in self-employment, business income or business assets as a measure of success” found that, “sons of more successful entrepreneurs are more likely to enter self-employment than sons of less successful entrepreneurs”. Similarly, evidence from two US representative samples one based on the General Social Survey (GLS) and the other from the National Longitudinal Survey (NLS) found that “the effects of self-employed parentage are greater for those parents with larger, more successful businesses” (Hundley, 2006: 390). These studies make it interesting to investigate the possible influence of parental low performance and especially failure in self-employment on children propensity to become self-employed.

The bulk of existing studies on role models focus on how individuals adopt a given behavior by observing role models (Gibson, 2004; Ibarra, 1999). Recent studies in social learning theory however argue that a role model may sometimes discourage the observer from undertaking the

behavior exhibited by the role model. These so called “negative role models” inspire people “by highlighting mistakes that must be avoided so as to prevent them” (Lockwood et al., 2002: 854). Examples of negative role models are victims of traffic accidents used in campaigns to promote safe driving as they represent “behaviors and attitudes that individual should seek to avoid” (Gibson, 2004: 145).

There is evidence to show that parental low performance in self-employment may be a “negative role model” towards their children’s choice of a self-employment career. Scherer et al (1989) for example found that children exposed to a low performance of a parental entrepreneurial role model developed negative attitudes towards an entrepreneurial career compared to children with no such role model. From these arguments, children of parents with low performance in self-employment should then be expected to develop negative attitudes towards self-employment and hence have a lower propensity to join self-employment even after an initial period of organizational employment. However, whether the negative attitudes towards an entrepreneurial career translates into actual behavior remains an empirical question (Scherer et al., 1989)¹⁵. Regarding self-employment, attitudes toward self-employment were shown to determine intentions to become self-employed which in turn determined actual entry into self-employment (Kolvereid et al., 2006).

Our literature review found no evidence of research on how parent failure in entrepreneurship influences their children propensity to take up an entrepreneurship career. This is an important literature gap given that most entrepreneurial activity including self-employment fails (Shepherd,

¹⁵ Since our empirical data does not include a measure on the employees’ attitudes towards self-employment we are unable to answer this question in this study.

2003). In particular, it is not clear whether the famed positive influence of parental self-employment activity role model still exist in cases where parents economically fail in self-employment. The few existing studies on self-employment failure show that such failure may have no long lasting economic impact on the family economic well being (Harting, 2005)¹⁶. The possible non-economic impacts of self-employment failure, for example on children propensity towards self-employment, have not been investigated.

There is evidence that business failure may have non-economic influence on the self-employed parents. First “there appears to be an emotional relationship between the self-employed and their business” (Shepherd, 2003: 319). In case the business fails, this emotional relationship is likely to generate grief on the self-employed (Shepherd, 2003). Although not universally supported there is strong evidence that children's perceptions of parental work attitudes and experiences shape the development of their own work beliefs and attitudes (Luther, 2000). Barling et al. (1998) found that parental experiences of layoffs and job insecurity significantly predicted late adolescents' perceptions of parental job insecurity, which in turn, predicted their own work beliefs and work attitudes. Similarly, a study based on 112 West Germany families found that family income loss was associated with pessimistic life outlook by the parents and to lower job success expectancy by their daughters (Galambos & Silbereisen, 1987). It therefore seems reasonable to expect that children and especially young adults exposed to parent failure in self-employment may have a lower propensity to choose a self-employment career compared to children without such an exposure.

¹⁶ Similar bias against failure exist in studies on employee training (Joung et al., 2006) and role models (Gibson, 2004)

Hypothesis 2: Individuals whose parents failed in self-employment have a lower propensity to become self-employed compared with individuals whose parents were self-employed but did not fail.

Hypothesis 3: The lower propensity to become self-employed arising from parental failure in self-employment activity will be more pronounced if the failure occurred when the individual was a young adult (18-21 years).

3.5 DATA VARIABLES AND ANALYSIS

3.5.1 Data Description

To test the proposed hypotheses we use data from the US Panel Study of Income Dynamics (PSID), a longitudinal dataset available online from the University of Michigan. The study collects financial, labor, family relations and health data from almost 8,000 US nationally representative families since 1968. The PSID data comes from families and split-off families related to a 1968 (1) original US representative sample of about 3,000 families, normally called Survey Research Centre (SRC) sample and, (2) secondary samples which have been added to the SRC sample over time to increase the representation of disadvantaged families in the US like low-income families, Latinos and immigrants. Probability-of-selection weights included in the PSID dataset enable analysts to make estimates from the sample that are representative of the US population. Since the manner of computing probability weights varies over different years we restrict our analysis to the PSID SRC sample to ensure that our sample is representative of the US population in each year of our data analysis.

As of January 2006 the PSID had been used in over 2,000 peer-reviewed publications, and the user base has grown increasingly diverse, drawing in psychologists, medical researchers, public health scholars, geographers, etc. This wide usage is a pointer to the cleanness and usefulness of this dataset (Harting, 2005). The PSID surveys are administered by telephone with one member of the family, usually the family head, answering questions about themselves and other members of the family. The data analysis in this paper is restricted to family heads since it is for them that most of the information needed is available¹⁷.

We split the PSID SRC sample into two groups to facilitate an intergenerational analysis necessary for our study. The first dataset which we label the parents group uses PSID SRC data for the years 1968 to 1992 while the second dataset labeled the employees group uses the PSID SRC data from 1980 to 1993. We use the parents group to identify whether family heads were self-employed and also whether they had economic failure in self-employment. Following Harting (2005), an individual is said to have had an economic failure in self-employment if the cessation to be self-employed results in a) business losses and/or b) the individual rejoining the workforce at a lower wage (adjusted for inflation) than she earned in self-employment, and/or c) the individual being unemployed.

The second group, called the employees group, is made of male family heads appearing in the SRC data sample between 1980 and 1993 and whose parents' information is available from the first group, the parents group. The employees group is further restricted to family heads who

¹⁷ More information on the PSID is available from documents section of the PSID website <http://psidonline.isr.umich.edu/> and especially the article "[The Panel Study of Income Dynamics: Overview & Summary of Scientific Contributions After Nearly 40 Years](#)" - January, 2006"

were organizational employees in any of the 13 years from 1980 to 1992 and consequently potentially could transition to become self-employed at each subsequent year i.e. 1981 to 1993. We take 1980 as our starting year to reduce the overlap with the data on parents group. We stop at 1993 because it is the last year for which the full data required for the analysis was collected. We carry out two data manipulations on the employees' group data. First, we identify whether or not an individual transitioned from organizational employment to self-employment for the 13 pair of years from 1980-1981 up to 1992-1993. The first year of each pair is denoted year 1 while the second year is denoted year 2. An individual is deemed to have transitioned from organizational employment to self-employment if they report being employed by someone else in year 1 and report being self-employed in year 2. The second data manipulation involves linking each individual in the employees group to their parents' information contained in the parents group. We use binary variables to indicate whether the parent was self-employed for each year as the employee matured from 8 years to 22 years¹⁸. We also use binary variables to indicate whether the parent had an economic failure in self-employment during the same age bracket¹⁹.

The computations for parent self-employment activity and failure start at eight years based on career development studies which argue that children from this age onwards are able to recognize and be influenced by their parents work habits (Barling et al., 1998). Age 22 is chosen to be the last year of computation given that most US students complete their university

¹⁸ We use the FIMS tool available from PSID website <http://simba.isr.umich.edu/FIMS/> which generates an intergeneration file linking family heads with their parents.

¹⁹ We are grateful to Dr. Cox, University of Durham, UK for providing a key insight on the algorithm used to perform this computation. The algorithm and other stata program code used in the empirical analysis are available from the author on request.

undergraduate studies by this age and subsequently join the labour force. Parental influence beyond age 22 is likely to be confounded with influences arising from job market considerations and experiences. Further, parental influences on children career values are said to decline after teenage years (Halaby, 2003; Johnson, 2002).

3.5.2 Graphical Representation

To improve our understanding of the data, we first attempt a graphical representation on propensity of organization employees to transition to self-employment based on the employee's age when the parents were self-employed. The objective is to obtain a graphical illustration on how parental entrepreneurship activity influence varies with the children age. For each of the 13 year pairs starting from 1980-1981 to 1992-1993 we obtain the number of employees who transition from organizational employment to self-employment and whose parents were self-employed. For each such employee we determine whether or not the parent was self-employed in each year as the employee matured from 8 years to 22 years. Figure 3-1 shows the average proportion of employees who transitioned and had self-employed parents when the employees were of age 8 to 22 years. We observe that parental self-employment activity influence varies with child age and reaches a maximum at late adolescence i.e. around age 19 – 20 years before declining at age 21.

We further summarize the employee transition data based on three age groups. The age groups 8 to 11 years, 12 to 17 years and 18 to 21 years are chosen to roughly mirror the US education system of primary school, high school and university education respectively. Table 3.1 shows the average proportion of employees who transitioned to self-employment and who had been exposed to parental self-employment activities at each of the three periods during their school

Figure 3-1: Proportion of employees who transitioned and had self-employed parents at a given age

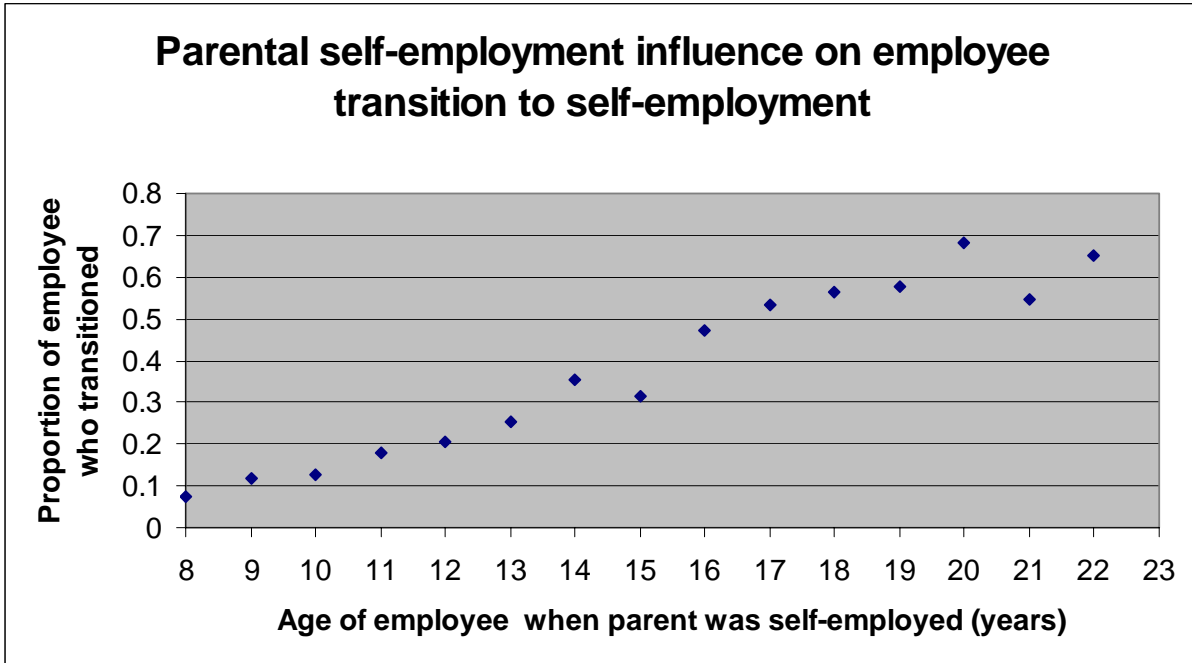


Table 3.1: Proportion of employees who transitioned and had self-employed parents at different age groups

Year Pair	Total employee transitions	Employee age when parent was self-employed		
		8-11 years	12-17years	18-21years
1980-81	8	0.00	0.21	0.78
1981-82	14	0.02	0.25	0.46
1982-83	8	0.00	0.21	0.53
1983-84	6	0.04	0.19	0.63
1984-85	5	0.15	0.40	0.45
1985-86	5	0.20	0.17	0.40
1986-87	10	0.10	0.37	0.68
1987-88	17	0.24	0.32	0.47
1988-89	9	0.11	0.26	0.72
1989-90	13	0.08	0.46	0.46
1990-91	5	0.15	0.47	0.85
1991-92	12	0.17	0.43	0.69
1992-93	9	0.28	0.65	0.61
1993-94	15	0.22	0.59	0.58
Average	10	0.12	0.36	0.59

life. Again, the parental influence reaches a maximum during the university education age which coincides with our definition of young adult age.

3.5.3 Empirical Analysis

Dependent variable. To empirically test the three hypotheses stated in this paper, we use a logistic regression for grouped data. The dependent variable is the binary variable, *trn*, indicating whether the employee transitioned or not from paid work to self-employment in moving from year 1 to year 2²⁰. We use the values in year 1 to predict the influence of different independent variables on the decision of the employee to transition to self-employment in year 2.

For clarity we categorize the independent variables into either hypotheses variables or control variables. Hypotheses variables are those independent variables whose influence we aim to establish in this paper. In contrast, control variables are other independent variables whose influence has been established in previous related studies.

Hypotheses variables. Our hypothesis 1 aims to refine the well accepted concept of positive self-employed parental influence on their children propensity to transition to self-employment after a period of organizational employed. The refinement focuses on identifying how the influence varies with age of child when parent was self-employed. Due to lack of previous research on how parental entrepreneurial influence varies with the child's age, we adopted three age bands based on the US education system: 8 to 11 years for primary schools, 12

²⁰ In this section we use italics to denote the abbreviated variable names appearing in empirical analysis results tables included in this paper.

to 17 years for high school and 18 to 21 years for undergraduate university education²¹. Based on these age bands we define two sets of independent variables which are of key interest in our study.

First is the set of variables on parent self-employment activity when the employee was a child. We define the variable *hse8t21t* to take the value of the total number of years the family head, either mother or father, was involved in self-employment activity when the child was aged 8 to 21 years. To investigate how the parental influence varies with the child age we define the variables *hse8t11t*, *hse12t17t* and *hse18t21t* to take the value of the total number of years the family head, was involved in self-employment activity when the child was aged 8 to 11, 12 to 17, 18 to 21 years respectively.

The second set of variables of key interest relate to whether the family head experienced an economic failure in self-employment when the employee was in any of the three age groups. First, we define the variable *fhse8t21t* which takes the value of total number of years in which the family head had an economic failure in self-employment activity when the employee was aged between 8 to 21 years. As in the previous case, we define variables *fhse8t11t*, *fhse12t17t*, and *fhse18t21t* to take the values of total number of years in which the family head self-employment activity failed economically when the child was in the age groups 8 to 11, 12 to 17 and 18 to 21 years respectively.

²¹ Aware that in some US states university education includes those at age 22, we carried out comparative tests with the university age group ranging from 18-22 years and found no important differences. We opted for the university age group ranging from 18-21 to reduce the possible influences from job market considerations as explained in an earlier footnote.

Control variables. Previous studies have found employee transition to self-employment is influenced by financial resources, human capital and social capital (Fairlie, 1999; Kim et al., 2006; Velamuri et al., 2005). We control for influences arising from financial resources by using family income from labour, assets and other transfers e.g. winning lotteries or inheritances. In line with previous research, family income is divided by a hundred thousand to reduce the variance due to very rich families in the sample (Fairlie, 2005; Hurst et al., 2004). Similarly we use quadratic terms for the family income variable to cater for its positive curvilinear association with propensity to transition to self-employment (Kim et al., 2006). The transformed variables and its associated quadratic variable are denoted *afaminc* and *afaminc2* respectively. Family income is adjusted to equivalent 1993 dollars using the US consumer price index to control for macroeconomic influences.

We control for human capital by using tenure, labor market experience, age and education. *Tenure* is measured by the number of years the employee has been in current organization position. Labour market experience (*lbmktx*) is measured by the number of full-time employment period in years since the age of 18 years. The influences of tenure, labor market experience and *age* on propensity to transition to self-employment changes as their values increase. Initially, the three variables increase the likelihood that employees will transition to self-employment due to the increasing information and skilled gained from organizational employment. However, when people become older their willingness to bear uncertainty inherent in self-employment compared to organizational employment decreases due to their shorter time horizon. Also employee's income increases with age increasing the opportunity cost of transitioning to self-employment (Shane, 2003). Consequently, the three variables have a positive curvilinear influence on

employee transition to self-employment peaking at a certain level before subsequently starting to decrease (Kim et al., 2006). We use *tenure2*, *lbmktx2* and *age2*, the quadratic form of tenure, labour market experience and age respectively to control for their positive but declining influence on transition to self-employment (Fairlie, 1999; Hurst et al., 2004; Kim et al., 2006). Education (*educ*) is measured in terms of years of education, with 0-16 representing actual number of school and 17 representing the maximum possible value for higher education. The relationship between education and transition to self-employment is ambiguous since arguments can be made for both a negative and a positive relationship (Kim et al., 2006).

The traditional way in which entrepreneurship scholars have controlled for social capital is using a variable indicating parental self-employment activity. Since our main hypothesis aims to refine this same variable we use two other variables to control for social capital. First, we use father's education (*fteduc*) to measure other social benefits a child may derive from their parents up and above parental self-employment activity (Fairlie, 1999). This variable is coded from 0 to 8 depending on the highest level of education attained by the employee's father²². Secondly, family business (*fambuss*) is a binary variable with value of 1(one) if the employee reports that the family owns a business in year 1 and a value of 0 (zero) on the contrary. Previous studies show that family business ownership increases an individual's propensity to transition to self-employment (Kim et al., 2006; Mueller, 2006).

A review of studies based on US population found that those who become self-employed are more likely to be male, of white race and married (Fairlie, 1999). This study is restricted to male

²² Initially PSID did not collect data on mother's education but this is included in subsequent data collection waves.

family heads given that most family heads are males hence there is very little variation in the gender variable within the sample. In the SRC sample used for this study the proportion of males was 84%. *Race* denotes an individual's race with 1(one) for whites and 0 (zero) for all other races. *Mrtstatus* is coded 1(one) for married or cohabiting employees and 0 (zero) otherwise. In line with studies which highlight the importance of geographical factors in determining entry to self-employment and entrepreneurship in general (Mueller, 2006; Sorenson et al., 2000), geographical influence is controlled by use of three *region* dummy variables for the four US regions; Northeast, South, Midwest and West. Northeast is the omitted region.

A summary of the variables description and their basic statistics appear in Table 3.2. The average transition rate of 3.2% compares well with that of 3.4% obtained using PSID dataset from 1968 to 1989 (Fairlie, 1999). Table 3.2 shows that some family heads were involved in self-employment activities for the entire 14 years from 1980 to 1983. However, the maximum number failures reported by any one parent are two²³. The average employee age is 36 years having worked for 14 years. This implies that employees start working at age of 22 years on average providing further credibility on the decision to limit the analysis of parental influence to maximum children age of 21 years. The final dataset contains 3383 unique employees with an average of 1975 employees for each of the 13 pair year and a total of 896 employee transitions²⁴.

²³ This shows that those who fail are either unlikely to return to self-employment and if they do are unlikely to fail again. We leave the determination of which of the two explanation is correct for subsequent studies.

²⁴ Employees are included in any pair of years from 1980-1993 for which they are in organizational employment in the first year.

Table 3.2: Descriptive Statistics

	Variable Name	Variable Type	Observations	Mean	Std. Dev.	Min	Max	Description
Dependent Variable								
	trn	Binary	27648	0.032	0.18	0	1	Employee transtion to self-employment
Hypothesis Variables								
Number of years parent was involved in self-employment activity								
	hse8t21t	Discrete	27648	0.54	1.90	0	14	when employee was of age 8 to 21 years
	hse8t11t	Discrete	27648	0.06	0.40	0	4	when employee was of age 8 to 11 years
	hse12t17t	Discrete	27648	0.24	0.98	0	6	when employee was of age 12 to 17 years
	hse18t21t	Discrete	27648	0.24	0.82	0	4	when employee was of age 18 to 21 years
Number of years parent failed in self-employment activity								
	fhse8t21t	Discrete	27648	0.04	0.20	0	2	when employee was of age 8 to 21 years
	fhse8t11t	Discrete	27648	0.00	0.05	0	1	when employee was of age 8 to 11 years
	fhse12t17t	Discrete	27648	0.01	0.11	0	2	when employee was of age 12 to 17 years
	fhse18t21t	Discrete	27648	0.02	0.15	0	2	when employee was of age 18 to 21 years
Control Variables								
	afaminc	Continuous	27648	0.52	0.29	0	4.90	Total family income from labour, asset and transfers/100000
	afaminc2	Continuous	27648	0.36	0.54	0	24.05	afaminc squared
	tenure	Discrete	15094	6.07	6.18	0	38.83	Number of years employee has worked in current job
	tenure2	Discrete	15094	74.95	151.37	0	1508	Tenure squared
	lbmktx	Discrete	27324	13.85	8.14	1	42	Number of years employee has worked since he was 18 years
	lbmktx2	Discrete	27324	258.15	284.62	1	1764	Lbmktx squared
	age	Discrete	27648	36.33	8.44	22	60	Employee age in years
	age2	Discrete	27648	13.91	6.58	5	36	age squared/100
	educ	Discrete	15637	13.32	2.41	0	17	Highest level of education achieved by employee
	fteduc	Discrete	26675	3.83	1.89	0	8	Employee's father education achievement
	fambuss	Binary	27639	0.09	0.29	0	1	Report of family owned business (true = 1)
	race	Binary	27648	0.92	0.27	0	1	Employee race (white=1)
	mrtstatus	Binary	27648	0.90	0.30	0	1	Employee marital status (married = 1)

Though some entrepreneurship authors have used a binary indicator on parents self-employment activity, we opted to use a measure of time in self-employment given the finding that “parents’ time in self-employment has an independent and stronger effect on the likelihood of the son’s transition than the simple exposure to self-employment” (Dunn et al., 2000: 301). We however carried out parallel tests using binary variables to indicate parent self-employment activity and economic failure. The results using binary variables are similar to those obtained using a measure of total parental time in self-employment activity and are discussed in subsequent separate section.

Table 3.3 shows the correlations between the different variables. We omit the three age group variables for both family head self-employment activity; i.e. $hse8t11t$, $hse12t17t$, and $hse18t21t$, and family head self-employment activity failure; i.e. $fhse8t11t$, $fhse12t17t$, and $fhse18t21t$. By definition each of the three variables are subsets and highly correlated with $hse8t21t$ and $fhse8t21t$ respectively²⁵. The logit regressions analysis results discussed subsequently involves having the transition indicator trn as the dependent variable and both the hypothesis variable and control variables as independent variables. Our results discussion focuses on the hypothesis variables and only highlights the control variables where necessary.

²⁵ The minimum correlation of the three variables with $hse8t21t$ was 0.61 while that with $fhse8t21t$ was 0.31.

Table 3.3: Correlation Matrix

	trn	age	Race	mrtsta~s	fambuss	fteduc	educ	lbmktx	tenure	afaminc	hse8t21t	fhse8t21t
trn	1											
age	-0.01	1										
race	0.0206***	-0.0241***	1									
mrtstatus	-0.003	0.1883***	0.0333***	1								
fambuss	0.1531***	0.0565***	0.0621***	0.0291***	1							
fteduc	0.0379***	-0.2362***	0.1210***	-0.1235***	0.0262***	1						
educ	0.0474***	-0.004	0.1170***	-0.0477***	0.1113***	0.4043***	1					
lbmktx	-0.0116*	0.9293***	-0.0303***	0.1643***	0.0488***	-0.2486***	-0.0667***	1				
tenure	-0.0209*	0.4810***	-0.0564***	0.0913***	0.01	-0.1645***	-0.1395***	0.4610***	1			
afaminc	0.0242***	0.3950***	0.1157***	0.2058***	0.1283***	0.1013***	0.3576***	0.3471***	0.1976***	1		
hse8t21t	0.0225***	-0.2267***	0.0541***	-0.0875***	0.01	0.1074***	0.0575***	-0.2132***	-0.0879***	-0.0789***	1	
fhse8t21t	0.01	-0.1228***	0.0385***	0.002	0.0349***	-0.002	0.01	-0.1205***	-0.0598***	-0.0490***	0.2901***	1

Note: *p < .10, **p<.05, ***p<0.01

3.6 RESULTS

3.6.1 Parental Influence Dependence on Child Age

We start by replicating existing studies which argue and empirically show that parental self-employment background increases the propensity of individuals to become self-employed. Model 1A of Table 3.4 shows that our result is in agreement with these previous studies in that the coefficient of family head self-employment when the offspring was age 8 to 21 years is positive and significant (hse8t21, $p < 0.05$). All control variables which are statistically significant have the expected sign. Kim et al. (2006) also found a non-significant relation with respect to labour market experience and argued that it maybe managerial experience, which they found to be statistically significant, that may be more important in employee decision to transition to self-employment. We are unable to check on this possibility since the PSID data set does not provide a measure for managerial experience.

In model 2A of Table 3.4 we segment the parental entrepreneurial activity into the three age groups, 8 to 11, 12 to 17 and 18 to 21 years. From the results, the parental influence is only significant when parental self-employment activity occurred when the employee was a young adult i.e. of age 18 to 21 years. Compared to the results obtained in model 1A, the parental influence on a young adult is higher both in statistical significance ($p < 0.01$ versus $p < 0.05$) and in magnitude (0.3242 versus 0.0917). However, the parental influence for the other two age-groups are both negative but not statistically significant. All the control variables which were significant in Model 1A remain significant in Model 2A with little change in their magnitudes indicating that the variables are relatively stable.

Table 3.4: Influence of Parental Self-Employment Activity

Variables			Regression Models	
Group	Description	Name	Model 1A	Model 2A
Hypotheses variables				
	Family head self-employment when employee was age			
	8 to 21 years	hse8t21t	0.0917**	
	8 to 11 years	hse8t11t		-0.8628
	12 to 17 years	hse12t17t		-0.0001
	18 to 21 years	hse18t21t		0.3242***
Control variables				
	Family income/100000	afaminc	-0.9923	-0.9556
	(Family income/10000) squared	afaminc2	0.7868***	0.7722***
	Tenure (years)	tenure	-0.0458	-0.0468
	Tenure squared	tenure2	0.0022*	0.0022*
	Labour market experience	lbmktx	0.0264	0.0377
	Labour market experience squared	lbmktx2	0.0009	0.0006
	Age	age	0.0332	-0.0015
	(Age squared)/100	age2	-0.1199	-0.0769
	Education	educ	0.0588	0.053
	Father's education	fteduc	0.0804*	0.0834**
	Family Business (yes = 1)	fambuss	2.4376***	2.4571***
	Race (white = 1)	race	0.0631	0.0513
	Marital status (Married = 1)	mrtstatus	0.2638	0.2433
Model Values				
	Number of observations		7187	7187
	Wald chi2 (df, p)		275.21(17,0)	280.43(19,0)
<p>Note: The sample consists of male non-agricultural workers of age 23 to 60 years who are heads of families. All models include a constant term and region dummies. Family income is in constant 1993 dollars. *p < .10, **p<.05, ***p<0.01</p>				

These results show that parental influence may be dependent on the age of child when parent was self-employed. In particular, our results indicate that parental self-employment influence maybe more pronounced if the self-employment activity occurs when the offspring is a young adult i.e. 18 to 21 years. By taking into consideration the child age when the parent was self-employed, our results shows that the parental influence may be highly positive, for the young adults, or not be statistically significant for the other young age groups. Previous studies which did not take into account the timing of parental self-employment activity may have underestimated the parental influence on the young adult age group and overestimated parental influence on the younger age groups. The results are in support of our hypothesis 1.

3.6.2 Influence of Parental Failure in Self-Employment

Previous studies in entrepreneurship have failed to separate the positive influence of parental self-employment role model on their offspring's propensity to become self-employed from possible negative influence arising from parental failure in self-employment. We attempt to do this separation in testing model 1F of Table 3.5. After controlling for parental self-employment activity influence, our results of model 1F shows that parental failure in self-employment activity has a negative and statistically significant influence on the offspring's propensity to transition from organizational employment to self-employment (fhse8t21, $p < 0.1$). It is worthwhile comparing results of model 1A in Table 3.4 which only accounts for parental self-employment activity with results of model 1F in Table 3.5 which in addition also accounts for parental failure in self-employment activity. Such a comparison shows that accounting for the possible negative influence arising from parental failure in self-employment slightly increases the magnitude of the positive influence arising from parental self-employment activity (hse8t21, 0.111 versus 0.0917)

Table 3.5: Influence of parental failure in self-employment

Variables			Regression Models		
Group	Description	Name	Model 1F	Model 2F	Model 3F [^]
Hypotheses variables					
Family head self-employment activity when employee was age					
	8 to 21 years	hse8t21t	0.111**		0.0109
	8 to 11 years	hse8t11t		-1.2662	
	12 to 17 years	hse12t17t		-0.0186	
	18 to 21 years	hse18t21t		0.4087***	
Family head failure in self-employment when employee was age					
	8 to 21 years	fhse8t21t	-0.8705*		
	8 to 11 years	fhse8t11t		2.1402	
	12 to 17 years	fhse12t17t		0.7492	
	18 to 21 years	fhse18t21t		-2.6383**	-2.1579
Control variables					
	Family income/100000	afaminc	-1.0419*	-0.9779	-1.0429
	(Family income/10000) squared	afaminc2	0.7987***	0.7681***	0.753***
	Tenure (years)	tenure	-0.0478	-0.0564*	-0.0701**
	Tenure squared	tenure2	0.0023*	0.0026**	0.0029**
	Labour market experience	lbnktx	0.0248	0.0371	0.0197
	Labour market experience squared	lbnktx2	0.0009	0.0006	0.0009
	Age	age	0.063	0.0104	0.0817
	(Age squared)/100	age2	0.0301	-0.0897	-0.1665
	Education	educ	-0.1161*	0.0604	0.0525
	Father's education	fteduc	0.0907*	0.0807*	0.0722
	Family Business (yes = 1)	fambuss	2.4666***	2.4945***	2.5638***
	Race (white = 1)	race	0.2906	0.073	0.111
	Marital status (Married = 1)	mrtstatus	0.0758	0.2763	0.0745
Model Values					
	No. of observations		7187	7187	6792
	Wald chi2 (df,p)		277.8 (18,0)	283.03 (22,0)	268.08 (18, 0)
Note: The sample consists of male non-agricultural workers of age 23-60 who are heads of families. All models include a constant term and region dummies. Family Income is in constant 1993 dollars. *p < .10, **p<.05, ***p<0.01					
[^] Reduced sample of employees whose parent failed in self-employment when employee was aged 18 to 21 years and employees whose parents were never self-employed.					

but has no impact on the statistical significance. In essence the act of parent failing in self-employment reduces the positive impact of mere parental self-employment activity on a child propensity to transition to self-employment. These results are in support of our hypothesis 2.

We further investigate whether the influence of parental self-employment activity failure depends on the child age when the failure occurred. Model 2F in Table 3.5 shows that the parental self-employment activity influence is only statistically significant if such activity occurred when the offspring's was a young adult i.e. 18 to 21 years. Further, this influence of parental self-employment activity is positive in agreement with prior studies ($\beta_{hse18t21} = 0.41, p < 0.01$). However, the influence of parental failure in self-employment is negative and statistically significant for the young adult age group ($\beta_{fhse18t21} = - 2.64, p < 0.05$). We know of no previous studies that have discussed nor demonstrated such a negative influence. By comparing the results of model 2F and those of model 1F, separating the influence of parental self-employment activity from that of parental failure in self-employment activity for the different age groups reveals the previously unrecognized negative influence of parental failure in self-employment. Further, the magnitude of negative influence of parental failure in self-employed is much higher and only statistically significant for the young adult age group. These results are in support our hypothesis 3.

The results in model 2F make it interesting to investigate the resultant parental influences on the young adult age group for those employees whose parents failed in self-employment. The question of interest is whether the positive influence of parental self-employment activity is nullified by the negative influence of parental failure in self-employment, if such a failure occurs

when the child is a young adult. To investigate on this question, we eliminate from our sample employees whose parent were self-employed but did not fail when the employees were young adults i.e. 18 to 21 years. That is, the reduced sample comprises of the group of employees whose parents were self-employed and failed at least once when employees were young adults and the group of employees whose parents were never self-employed. Consequently, in the reduced sample, parental self-employment activity concurrently implies parent self-employment failure when employee was a young adult.

The results of model 3F in Table 3.5 show both the positive influence of parental self-employment activity (hse8t21) and the negative influence of parental failure in self-employment (fhse18t21) during young adult age are statistically non-significant. In effect the results shows that having an employee whose parents failed in self-employment when the employee was a young adult is not better or worse off than another employee whose parents were never self-employed when the employee was also a young adult. The result of model 3F provides an indication that the influence of parental self-employment activity may not always be positive as has been argued in most of previous studies. In particular a positive parental influence or a negative influence arising from parental failure in self-employment may not exist if parent self-employment activity occurs when their children are in the young adult age group.

It is worth noting that the influence of education variable seems dependent on whether parental failure in self-employment is taken into consideration. The education variable is non-significant in model 1A and 2A when we don't control for parental failure, turns negative and significant in model 1F when parental failure is controlled for in general but is non-significant again when

parental failure is controlled for in each age group in model 2F. Our results add to the already alluded to ambiguous relationship between education and transition to self-employment (Kim et al., 2006). We leave the investigation of this relationship for future studies.

3.6.3 Influence of Parental Self-Employment Activity and Failure Using Binary Indicators

We repeated the empirical analysis tests in the previous section but using binary variable indicators of parental self-employment activity and parental failure in self-employment. The results of these tests are contained in Table 3.6. To differentiate these latter tests from the previous ones we modify the hypothesis variables name and model names to end with a letter 'b' and 'B' respectively. For example, hse8t21b is a binary variable with value 1 (one) if the parent was self-employed at any one year when employee was aged between 8 and 21 years, and 0 (zero) otherwise.

Somehow different from model 1A, the results in Table 3.6 for model 1A(B) show that parental self-employment activity was found to have a non-significant influence of offspring's propensity to become self-employed. However, this influence becomes positive once when we control for parental failure in self-employment in model 1F(B). This result support our hypothesis 2 by showing the importance of taking into consideration the influence of parental failure in self-employment to correctly determining the positive influence of parent self-employment activity.

The results of model 2A(B) show that parental self-employment influence is only significant for the age group 12 to 17 years. At first it is surprising that parental self-employment influence is non-significant for the young adult age of 18 to 21 years contrary to the significant results

Table 3.6: Parental Influences using binary indicator variables

Variables			Regression Models				
Group	Description	Name	Model 1A	Model 2A	Model 1F(B)	Model 2F(B)	Model 3F(B)^
	Family head self-employment when employee was age						
	8 to 21 years	hse8t21b	0.3538		0.6692**		-2.1355** (+)
	8 to 11 years	hse8t11b		-0.9079		-1.6386	
	12 to 17 years	hse12t17b		0.8032**		0.7828*	
	18 to 21 years	hse18t21b		0.1007		0.5874*	
	Family head failure in self-employment when employee was age						
	8 to 21 years	fhse8t21b			-1.2244**		
	8 to 11 years	fhse8t11b				2.3826	
	12 to 17 years	fhse12t17b				0.2172	
	18 to 21 years	fhse18t21b				-2.9224***	
Control Variables							
	Family Income/100000	afaminc	-0.9858	-1.0055	-1.0384*	-1.0247	-1.0427
	(Family Income/100000) squared	afaminc2	0.7856***	0.7901***	0.7965***	0.7864***	0.7529***
	Tenure (years)	tenure	-0.0435	-0.0452	-0.0459	-0.0528	-0.0701**
	Tenure squared	tenure2	0.0021*	0.0022*	0.0022*	0.0024*	0.0029**
	Labour Market Experience	lbmctx	0.0315	0.0337	0.033	0.0342	0.0198
	labour Market Experience squared	lbmctx2	0.0008	0.0007	0.0007	0.0006	0.0009
	Age	age	0.013	0.0185	0.0089	0.0259	0.0816
	(Age squared)/100	age2	-0.0968	-0.1017	-0.0912	-0.1083	-0.1664
	Education	educ	0.0585	0.062*	0.062*	0.0659*	0.0525
	Father's education	fteduc	0.0808*	0.0798*	0.0756*	0.0752*	0.0722
	Family Business (yes = 1)	fambuss	2.4221***	2.4412***	2.462***	2.48***	2.5637***
	Race (white = 1)	race	0.0572	0.0491	0.079	0.0695	0.111
	Marital status (Married = 1)	mrtstatus	0.2287	0.2554	0.2586	0.298	0.0744
Model values							
	Number of observations		7187	7187	7187	7187	6792
	Wald chi2 (df,p value)		275.21 (17,0)	280.43 (19,0)	277.8 (18,0)	283.03 (19,0)	268.08 (17,0)

Note: The sample consists of male non-agricultural workers of age 23-60 who are heads of families. All models include a constant term and region dummies. Family Income is in constant 1993 dollars. *p < .10, **p<.05, ***p<0.01

^Reduced sample of employees whose parent failed in self-employment when employee was aged 18 to 21 years and employees whose parents were never self-employed.

(+) This value is a measure of the combined influence of parental self-employment activity when employee was aged 8 to 21 years and subsequent parental failure in self-employment when employee was aged 18 to 21 years.

obtained in model 2A. But again this is before we control for the influence of parent failure in self-employment. When we use binary variables to control for parent self-employment failure in model 2F(B), the parental influence on the young adult age also becomes significant. Similar to the previous results in model 2F the influence of parental failure in self-employment in model 2F(B) is found to be highly statistically significant and of higher magnitude during the young adult age in comparison to the two younger age groups. This result is in support of hypothesis 3 by showing that the influence due to parental failure in self-employment is more pronounced for the young adult age group

Finally model 3F(B) investigates the influence of both parent self-employment activity and that of parental failure in self-employment on the reduced sample. As in the case of model 3F the reduced sample is made up of two groups of employees: First are employees whose parents were self-employed any time when the employees were between age 8 to 21 years but whose parents self-employment activity failed when employees were young adults i.e. aged between 18 and 21 years. The second group comprise of employees whose parents were never self-employed. By definition of the reduced sample, all employees whose parents were self-employed also failed when the employee was a young adult. Also parents who were not self-employed could not have subsequently failed in self-employment when the employee was a young adult. Therefore for all employees in the reduced sample the binary variable for parent self-employment activity is equal in value to the binary variable of parent failure in self-employment. In carrying out the empirical analysis we need only use one of the two binary variables due to obvious collinearity between the two variables. We opted to use the binary variable for parent self-employment activity when employee was aged 8 to 21 years. It is worth noting that using any of the two binary variables in

the logit regression analysis yields the combined influence of both parent self-employment activity between ages 8 to 21 years and parent failure in self-employment when the employee was a young adult.

The results of the analysis in model 3F(B) shows that parental self-employment activity resulting with economic failure when employee was 18 to 21 years has a statistically significantly negative influence ($p < 0.05$) on an employee propensity to transition to self-employment. The results using the binary indicator variables are therefore stronger than those obtained using a measure of number of years in model 3F where the influence is found to be statistically non significant. It is worthy noting that while model 3F separates the positive influence of parental self-employment activity from the negative influence arising from parental self-employment failure, model 3F(B) does not. Based on our earlier arguments on the need to separate the two influence, the conservative non-significant results of model 3F are therefore preferable in comparison to the statistically significant results obtained in model 3F(B).

3.7 DISCUSSION OF RESULTS

Previous studies have been unanimous that most entrepreneurs and in particular the self-employed come from a family background of self-employed parents. i.e. entrepreneurs are family products. Our study brings up two considerations on this acknowledged positive parental influence on their offspring's propensity to transition from organizational employment to self-employment. Firstly, our study shows that the parental influence depends on the offspring's age when parent was involved in self-employment activity. In particular our study shows that parental influence may be heightened if the offspring is a young adult which we define to be 18

to 21 years of age. In the US, this age bracket corresponds to university education and individual may be more alert to career opportunities since they are just about to enter the job market. This may explain the higher significance effect of parental self-employment activity on their offspring's during young adult age.

Secondly, our study tries to disentangle the positive influence of parental self-employment activity from the negative influence of parental self-employment failure. The results show that previous studies on transition to self-employment may have compounded the two influences. By controlling for the possible negative influence arising from parental failure in self-employed, our study shows that the famed positive influence from self-employed parents does not persist when considering employees whose parents failed in self-employment when the employees were young adults. However, our study however provides comforting information to such parents in that, the influence of their failure in self-employment activity to their children is not statistically significant even for the young adult age group; Employees whose parents failed in self-employment are not worse off than employees whose parents were never involved in self-employment activity when it comes to transitioning from organizational employment to self-employment. In essence, parental failure in self-employment does not ripple forward to negatively influence their offspring's propensity to become self-employed.

Sociological studies have highlighted the importance of the “demographically dense” period of young adults in the formation of life pathways (Johnson, 2002: 1307). However, the definition of young adult varies across countries and with time. Also, self-employment and entrepreneurship in general, may be a different career in that children are more likely to perceive their parents

failure more than in other type of careers (Miers et al., (In Press)). In this study, for example, failure in self-employment meant that the parent had to change the job status to either being employed or unemployed. Such a change of status may be more perceivable than changing from one employer to another. Consequently, whether or not our results hold outside the US, across time and across other careers should be the subject of further studies.

3.8 CONCLUSIONS

Entrepreneurship studies have argued that organizations increase the probability of employees to become entrepreneurs by exposing them to possible entrepreneurial opportunities (Sorenson et al., 2000; Thornton, 1999). The general agreement on these studies of entrepreneurs as “organizational products” is that a parental entrepreneurship background increases an employee propensity to become an entrepreneur. These studies have not considered how a background of parental entrepreneurial activity failure may influence the propensity of an employee to become an entrepreneur. Our study shows that, in the US from 1980 to 1983, the influence arising from parental self-employment activity was dependent on the parental performance in self-employment. Whether an employee transitioned to self-employment even after identifying an opportunity was conditional on whether the parent had failed in self-employment. In essence, our study indicates that the concept of “entrepreneurs as organizational” product may endogenous to that of “entrepreneurs as family products”.

Existing role model studies have focused on how individual’s current behavior is affected by current or role models of the recent past (Gibson et al., 2003; Lockwood et al., 2002). Regarding work, there is still the pending “question on how the process that generated job values is

distributed over the life cycle” (Halaby, 2003: 276). Our paper provides an indication that, at least for self-employment, the young adult age group may be a crucial time for such influence to take place. Further, our study suggest that it is during this period of transition to adulthood when a possible negative influences is likely to occur if the offspring is exposed to failure in parental self-employment activity. We therefore contribute to the less studied influences of low performance role models in the context of self-employment (Gibson, 2004).

Management studies are highly biased towards understanding how success is achieved. However, in entrepreneurship since failure is such a common occurrence, studies on failure are at least necessary (Shepherd, 2003). Our paper contributes to the few studies on failure in self-employment by providing the comforting information that parental failure does not disadvantage their children’s propensity to self-employment. This result is very much similar to the empirical finding that self-employment failure has no long lasting economic impact on a family (Harting, 2005). Studies to replicate our results in different countries and using other measures of entrepreneurship can help to determine the robustness of our results.

4 WHY AND HOW DO EMPLOYEES TRANSITION TO NEW FIRM MANAGEMENT TEAMS?

4.1 ABSTRACT

Entrepreneurship studies have explored why but not how employees transition from organizational employment to entrepreneurship. These studies have focused on employees who transition to create new firms, ignoring other employees who transition to join management teams of new firms. These studies have also not considered the possibility of an employee making a partial-transition to entrepreneurship while continuing with organizational employment. Based on multiple case studies, we argue that compared to other employees, middle managers may be more prone to transition and join a new firm management team. Further, their decision to transition is dependent on re-employability opportunities and the possibility of having an initial period of partial-transition to entrepreneurship.

4.2 INTRODUCTION

A growing stream of entrepreneurship literature argues that most new firms are created by former employees of established firms, contrary to the popular notion of a self-made entrepreneur (Audia et al., 2005a; Freeman, 1986). This literature has focused on why (Amit et al., 1995; Velamuri et al., 2005), when (Hellmann, 2006; Stuart et al., 2006) and which (Dobrev et al., 2005; Singh & Vinnicombe, 2004; Terjesen, 2005) employees transition from organizational employment to entrepreneurship. Of particular importance are a few recent studies which show that new firms founded by former employees have better survival and growth records due to the reputation of former employer firm (Burton et al., 2002) or employees' experience in a market niche (Christensen et al., 1996). Given that most new firms started by entrepreneurs fail, studying employee transition to entrepreneurship seems a worthwhile endeavor.

A complementary but smaller stream of entrepreneurship literature highlights that most new firms are started by a team of individuals and not lone entrepreneurs (Cooney, 2005; Kamm & Shuman, 1990). However, despite early studies which show the importance of new firm management teams to new firm survival, performance and growth (Eisenhardt et al., 1990)²⁶, scholarship that focuses on the entrepreneurial teams is just developing (Forbes, Borchert, Zellmer-Bruhn, & Sapienza, 2006). The few existing studies on new firm management team formation have focused on team evolution (Clarysse & Moray, 2004) and new member addition (Forbes et al., 2006). These studies focus on why (Forbes et al., 2006) and where (Aldrich, 1999) the new firm seeks individuals to join its management team. In particular, we find no studies on

²⁶ For a recent review on influence of new firm team management see (Beckman, Burton, & O'Reilly, 2007)

why employees opt to leave organizational employment and join the management team of new firms created by other individuals.

For organizational employees, transition to a new firm management means risking a guaranteed income from employment for a risky income in entrepreneurship (Amit et al., 1995; Velamuri et al., 2005). For example, in 1997, self-employed individuals in Finland were found to work on average 10 hours more per week and earn 30,000 Finnish marks less annually compared to those in organizational employment (Uusitalo, 2001)²⁷. Given the importance of new firm management teams, it is worth considering what factors may influence an employee, who has not identified any entrepreneurial opportunity, to transition to a new firm management team.

Entrepreneurship researchers have not yet considered *how* employees transition from organizational employment. Whereas some employees have been shown to transit almost instantaneously (Baker, Miner, & Eesley, 2003), for others a gradual transit is applicable (Dyer, 1994). In the US, 3.3% of nascent entrepreneurs were found to be in full-time employment in established firms leading to the observation that “starting a new firm is clearly a secondary activity for those already in the world of work” (Reynolds, 1997: 453)²⁸. Existing literature has not investigated how the possibility to work on a part-time basis may influence the transition process. We aim to fill these gaps in the literature by investigating why and how employees transition from organizational employment to the join the management teams of new firms.

²⁷ Self-employment and new firm formation are the two principal ways in which entrepreneurship is operationalized in the entrepreneurship literature (Shane, 2003).

²⁸ Nascent entrepreneurs are individuals who have taken some activities in preparation for creating a new firm.

Given the lack of existing studies on this topic we adopted a multiple case study research methodology. The use of case study research is “most appropriate in the early stages of research on a topic” when “little is known about a phenomenon” (Eisenhardt, 1989: 548). Theory building using case studies is appropriate to answer questions of “how” and “why” in unexplored research areas (Eisenhardt & Graebner, 2007). Our research setting is a private for profit business incubator, GICE. The main source of data are interviews with seven Chief Executive Officers (CEOs) of new firms within GICE and two senior managers of GICE. One group comprises of four CEOs who transitioned from middle manager positions with their respective former employer without having identified an entrepreneurial opportunity to join new firm management within GICE. The other three CEOs, though having identified entrepreneurial opportunities opted to continue working with their employer and only dedicate a limited time to entrepreneurship as part-time CEOs of new firms within GICE. Two of these three CEOs were full-time employees at GICE at the time this research was conducted, while the other was employed elsewhere. Based on our study we develop theory driven propositions on why and how employees transition from organizational employment to join the management teams of new firms (Eisenhardt et al., 2007; Golden-Biddle, 2007). We extend existing entrepreneurship literature on employee transition to entrepreneurship to include employee transition to join new firm management teams.

The rest of the paper is structured as follows. First we review the literature on employee transition from organizational employment to entrepreneurship and pinpoint the literature gaps that motivated our research question. The second section describes our research setting to show why it is an appropriate site for the research question. This section also includes a summary

description of the core group of seven CEOs who are the main focus of the study. In the third section we summarize our interview results guided by existing entrepreneurship literature first focusing on why and then on how the CEOs in our study transitioned to entrepreneurship. We support our results with interviews with two senior managers of the business incubator. In section four we discuss our results leading to some testable propositions derived from existing literature viewed with the benefit of our study results. In the conclusion, we point to managerial and policy implications and further research questions. Our study shows the importance of an economic safety net including re-employment opportunities for organizational employees making the decision to transition to entrepreneurship by joining the management team of new firms.

4.3 LITERATURE REVIEW ON EMPLOYEE TRANSITION TO ENTREPRENEURSHIP

4.3.1 Entrepreneurs are Organizational Products

Contrary to the predominant notion of lone self-made entrepreneurs, most entrepreneurs are organizational products. The reasons why most entrepreneurs originate from existing firms have been grouped under either “pull” or “push” influences. Pull influences are argued to increase an employee’s knowledge of opportunities in particular sectors (Shane, 2000) and self-confidence in new firm creation, thus encouraging transition to entrepreneurship (Audia et al., 2005a). In contrast, push influences arise out of employee dissatisfaction with current organizational employment conditions in comparison to expectations in an entrepreneurship career (Moore et al., 2002). These studies have focused on entrepreneurs and ignore why other employees may transition from organizational employment to entrepreneurship by joining new firm management teams to exploit entrepreneurial opportunities discovered by other individuals.

Freeman (1986) and a subsequent review by Audia (2005a) postulated reasons why working in existing firms may have a “pull” influence on employees towards entrepreneurship. Organizational context increases the propensity of individuals to become entrepreneurs by providing them with opportunities to develop psychological and social resources necessary in new firms (Audia et al., 2005a). In particular, firms provide employees with; (1) knowledge about entrepreneurial opportunities by exposing them to poorly served markets or new markets (Sorenson et al., 2000), (2) knowledge on models of organizing new firms (Freeman, 1986) and, (3) ability to attract and allocate resources (Aldrich, 1999; Freeman, 1986). These factors increase an employee’s confidence in entrepreneurship hence increasing the chances of a transition from organization employment (Audia et al., 2005a). In summary, these studies highlight that individuals will transition to entrepreneurship driven by the identification of an entrepreneurial opportunity and heightened confidence in their ability to exploit such an opportunity. The possibility that employees can transition to entrepreneurial firms without having identified an entrepreneurial opportunity is not considered under “pull” influence arguments.

In contrast, “push” influences encourage employee transition to entrepreneurship in expectation of better remuneration for their human or social capital. This research stream shows that the propensity of employees to transition to entrepreneurship depends on (1) opportunity costs (Amit et al., 1995), (2) relationship between income and ability (Velamuri et al., 2005) and, (3) professional proximity to entrepreneurs (Stuart et al., 2006). These studies have so far failed to consider what happens to employees who (1) experience “push” influences but fail to identify an

entrepreneurial opportunity to exploit outside their current organizational employment, and (2) discover an opportunity whose opportunity cost is below current employment income. Whereas the normal assumption would be that such employees remain in organizational employment, this has not been systematically investigated.

4.3.2 Social Networks Influences

New firms are said to face a legitimacy problem with both resource and product markets (Stinchcombe, 1965). Some authors have argued that getting employees is one of the major problems facing small firms (Heneman, Tansky, & Camp, 2000) and new firms (Leung, 2003). The mostly documented mechanisms through which new firms are able to attract employees (Leung, 2003) and management team members (Forbes et al., 2006) are through the use of the entrepreneurs' social networks (Aldrich, 1999) or associating with other reputable firms e.g. venture capitalists (Davila, Foster, & Gupta, 2003)

Whereas the "social network influence" arguments may explain why some employees may join new firm management teams, existing studies have a bias of looking on this transition process from the new firm perspective of additional resource acquisition (Forbes et al., 2006). However some studies show that potential new firm employees can use such social networks to obtain private information on the new firms reducing the uncertainty about the new job (Aldrich, 1999). Whereas a positive influence would be most likely, we find no evidence of studies on whether social network influences are beneficial to employees who wish to transition to entrepreneurship in general or new firm management in particular.

4.3.3 Organizational Effects on Employee Transition

A small stream of entrepreneurship literature has looked at how organizational factors influence an employee transition to entrepreneurship. This literature argues that employees working in large organizations are likely to have less contact with environments outside the organization and therefore less exposure to entrepreneurial opportunities. In support of this argument, Sorenson (2006b), using a representative sample of 289,911 Danish nationals found that people who work for large and old firms are less likely to transition to entrepreneurship. This stream of literature also argues that a firm founder's contribution to the firm becomes devalued as the firm size increases because of the demands for discipline and conformity necessary in large firms. In an empirical test to this claim, Dobrev and Barnett (2005), using a sample of 5,283 former US MBA students, found that organizational founders are more likely to transition to entrepreneurial ventures compared to other organizational employees.

Some authors have also argued that organizational influence towards employee transition to entrepreneurship varies between men and women. The phrase "glass ceiling" was coined in the mid-1980s to refer to difficulties talented women and minorities experience in advancing their careers in medium and large organizations (Cotter, 2001)²⁹. Though there have been positive improvements in the 1990s, senior women managers are still "not reaching the top corporate management tiers" and instead are "leaving corporate environments to set-up entrepreneurial business" (Terjesen, 2005: 246). The women ex-corporate entrepreneurs are said to be "pushed" into entrepreneurship by (1) pay inequalities, and (2) career frustration, and "pulled" into

²⁹ For a recent literature review and an empirical UK study on the "glass ceiling" see (Singh et al., 2004)

entrepreneurship by (3) flexible work arrangements (Terjesen, 2005). We find no evidence of research on whether these three factors also increase the propensity of other employees, beyond senior women managers, to transition to entrepreneurship.

4.3.4 Partial Transition versus Full Transition to Entrepreneurship

A basic assumption of all the reviewed studies so far is that employee transition occurs almost instantly. For example, the paper by Baker et al.(2003) describes how three former employees transitioned to entrepreneurship and started operating their new firms “two weeks later”, “the following Monday” and “less than 1 week later”. Though the objective of their paper is not the employee transition process, it illustrates the common view that employee transitions occur within a short period associated with “leaving one organization to found another” (Dobrev et al., 2005: 434). This assumption is at variance with the claim that “many entrepreneurs start their careers by moonlighting – creating their own businesses while keeping their regular employment” (Dyer, 1994: 12). In support of the high frequency of moonlighting, projections based on a US representative sample of 40 nascent entrepreneurs found that 34% of all full-time employees were involved in new firm creation activities (Reynolds, 1997).

Though entrepreneurs typically must leave one organization in order to found another (Carroll & Mosakowski, 1987), this need not always be the case. Organizational employees may engage in entrepreneurship activities on a part-time basis while continuing with their organizational employment. We propose that such employees be considered to have partially transitioned to entrepreneurship, a concept not discussed in the existing entrepreneurship literature. We use the term partial transition to entrepreneurship to describe the situation where an employee has a

significant financial interest in a new firm and dedicates some time to the new firm management activities (Cooney, 2005; Dyer, 1994) but continues to maintain a full-time or part-time employment with his existing employer. Financial interest may be result of “sweat equity” rather than capital funding (Cooney, 2005: 230)³⁰.

We associate full transition to entrepreneurship with an employee who leaves his former employer to join in the ownership and management of a new firm. Stuart & Ding (2006) identify a scientist who joins the scientific advisory board of a new biotechnology firm to have transitioned to entrepreneurship even though the scientist remains employed in academia. For us this would not be a case of partial transition to entrepreneurship since though the such a scientist is part of the advisory board they do not partake in the day-to-day management activities.

4.3.5 Transition to New Firm Management Teams

Though the reviewed literature highlights the importance of new firm management teams their formation is still not understood well (Forbes et al., 2006). In particular, this literature has failed to explain why employees would agree to risk a guaranteed income from organizational employment for a risky income as members of new firm management. Secondly, the reviewed literature has not explored how the transition process takes place. This is an important consideration given that not all who discover opportunities go ahead to exploit them (Shane, 2003), probably due to the difficulties they foresee in the transition process. Consequently, the purpose of this study is to investigate why and how organizational employees transition to management teams of new firms.

³⁰ We take sweat equity to include equity acquired by employees dedicating part of the salary towards such acquisition.

Given the lack of prior studies on employee transition to new firm management teams, using a multiple case study approach to develop relevant theory on this issue is an appropriate research methodology. In case study methodology, theory is “developed by recognizing patterns of relationships among constructs within and across cases and their underlying logical arguments” (Eisenhardt et al., 2007: 25). Using multiple cases enables a replication logic in which each case serves as an experiment to confirm or disconfirm inferences drawn from the other cases (Yin, 1994). The results from this type of research design are therefore more generalizable than those of single case studies.

4.4 RESEARCH SETTING

4.4.1 GICE Business Incubator

Our research setting is the privately owned GICE business incubator cum venture capital firm in a Western European country. GICE has specialised in developing internet based firms serving diverse industrial sectors since 1998. GICE is a business incubator in that it provides value added services to new firms like a typical business incubator. These services include provision of office space, administrative services, management advice, etc³¹. However, GICE is also a venture capital firm in that it invests capital in all the new firms receiving services from the incubator³².

Part of the services that GICE provides to new firms within the incubator is recruitment of individuals to join the new firm management team. It is a condition laid down by GICE that an individual who joins the new firm management team to become the new firm CEO should own a

³¹ For an overview on business incubator literature see (Allen & McCluskey, 1990; Phan, Siegel, & Wright, 2005)

³² For an overview on venture capital literature see (Gompers & Lerner, 2001)

certain percentage of the shares of the new firm. This is normally achieved by having part of the CEO's salary go towards purchasing shares in the new firm. Initially, GICE owns a majority shareholding capital and controlling voting rights in all the new firms within the incubator. As the new firm matures, GICE shareholding reduces by having outside investors purchase shares in the new firm.

GICE has developed a list of characteristics which it uses to screen all potential external entrepreneurial ideas before they can be admitted to the incubator. GICE only admits into its incubator entrepreneurs with business ideas closely related to its specialised area in the internet. Unlike traditional business incubators, the GICE management also regularly comes up with internally generated new business ideas and subsequently looks for entrepreneurs to lead in the exploitation of these ideas. The exploitation is done by creating a new firm within the business incubator jointly owned by GICE and the entrepreneur. The new firm management team comprises the CEO, the GICE business incubator manager and at least one technical person since all the new firms in GICE utilise internet technologies.

By the time of the first set of interviews in June 2006, GICE had invested in a total of 22 internet companies ranging in age from two months to nine years and three firms had already moved out of the business incubator premises. GICE had already relinquished the majority shareholding in one of these three firms to an outside investor and only held a minimal 6% shareholding in that firm as of June 2006. The total outstanding investment of GICE in the new firms as of June 2006 was 1.1 million euros. Of the 22 new firms developed within GICE at the time of the research, 12 were exploiting business ideas generated internally at GICE, while the remaining 10 new

firms were based on ideas identified by entrepreneurs prior to joining GICE. One new firm in GICE had failed and two had been strategically refocused to different market segments different from those initially targeted.

4.4.2 Appropriateness of Research Site

Two factors make GICE an ideal research site for our research question. Firstly, the mix of internally generated and externally generated business ideas makes it possible to identify CEOs who joined GICE without having identified their own entrepreneurial opportunity. By focusing on the mix of the different CEOs we can investigate other factors which influence employee transition to entrepreneurship net of an entrepreneurial opportunity³³. Secondly, it is possible to investigate the employee transition process by comparing the factors which influenced the choice between full-time and part-time CEO status among the different CEOs. This allows us to investigate why some organizational employees may opt for partial transition to entrepreneurship instead of full transition to entrepreneurship.

The main focus of the study is on seven CEOs of seven new firms within GICE and whose details are given in Table 4.1. None of the seven new firms had reached break-even point when the CEOs joined their management teams. The first four CEOs held middle management positions with their previous employer before joining GICE. None of these CEOs was unemployed

³³ (Stuart et al., 2006) point out to the difficulty of separating motivation factors from opportunity based factors in their study of scientists engaged in entrepreneurship.

Table 4.1 Details of new firm CEOs interviewed

CEO Name	New firm status in year prior to joining			Decrease Of CEO income compared to previous employment (%)	Percentage of income towards share ownership	Position title with former employer	Type of transition from organization to new firm
	Revenue (euros)	Number of Employees	Age (Years)				
Alvaro	0	17	5	0	75%	Director of Sales	Full
Saxum	0	15	2	0	100%	Change Director	Partial then full
Xavier	100,000	10	5	50%	60%	Marketing Director	Full
Emmanuel	0	0	0	0	25%	Director of Projects	Full
Joseph	0	0	0	N/A	100%	IT projects manager	Partial
Mercy	0	0	0	0	30%	Incubator Manager (GICE)	Partial
David	0	0	0	0	40%	Marketing Manager (GICE)	Partial

between the time they left their former employers and the time they joined GICE. The last three CEOs in Table 4.1 are part-time CEOs at GICE dedicating only a few hours per week to the new firms while continuing with their paid employment elsewhere. It is worthy noting that the last two CEOs are also employees of GICE. i.e. they dedicate part of their time in GICE activities and the remaining time as CEOs of their own new firms within GICE. All the seven CEOs had at least university education, six had achieved postgraduate studies and three of them held MBAs.

We consider the seven CEOs to have transitioned from organizational employment to entrepreneurship by joining the management of new firms. For the first four full-time CEOs, their earnings either decreased or remained similar to that in previous organizational employment. However, for all seven CEOs, contributed between 25% and 100% in their earnings went towards purchasing shares in the new firm. After a period of two years, these contributions amounted to between 10% and 30% of the new firm capital. Consequently, all six CEOs had assumed ownership in the new firms and were involved in the management of these new firms. Following our earlier characterization, the first four CEOs had done a full transition to entrepreneurship while the last three CEOs had done a partial transition to entrepreneurship.

4.5 DATA COLLECTION

Data were gathered through open-ended, semi-structured interviews, through supplementary telephone conversations, emails exchanges and review of company and public documents (Stake, 1995). The principal data were collected by initially interviewing a total of 16 individuals comprising 14 CEOs of new firms, the president of GICE and the CEO of GICE. The interviews were done in two rounds, each interview session was voice recorded in full and later transcribed

by the first author. For cross-validation purposes, a copy of the voice recording and transcription was sent back to the interviewees via email. In the email, individuals were asked to make any changes in the text document but respecting the contents of the voice recording. Five of the sixteen individuals made minimal corrections to the transcribed texts³⁴.

The first round interviews were carried out in the period June-July 2006 and lasted on average one hour, ranging from 45minutes to one and half hours. The interviews involved 12 CEOs and sought to establish the reasons why they left their previous employer and what attracted them to join GICE. Interviews with the GICE president and GICE CEO were used to establish how GICE identified potential CEOs for new firms within the incubator and their terms of engagement. Four of the CEOs were occupied on a full-time basis in the management of the new firms. Three of the remaining eight CEOs worked as part-time CEOs with new firms within GICE. Two of the three part-time CEOs were in parallel working as senior managers of GICE while the third part-time CEO was employed elsewhere. The three part-time CEOs dedicated only part of their working time to new firm management activities of their respective new firms within GICE.

The second round interviews were carried out in the period of December 2006-January 2007. In addition to the four full-time CEOs identified from the first round interviews, the second round interview also included the three part-time CEOs of new firms within GICE. Follow-up interviews were also held with the two senior managers of GICE. The second session interviews lasted on average 30 minutes, ranging from twenty to forty-five minutes. These interview

³⁴ These texts, edited to ensure the sources remain anonymous, are available on request from the author on request.

sessions focused on the CEOs transition process to join the new firm management team within GICE.

In summary, the initial group of 12 CEOs comprised of 4 full-time CEOs, 3 part-time CEOs and five CEOs who were either briefly unemployed or self-employed prior to joining GICE. The analysis of the first interview sessions is based on four CEOs who had made a full-transition from their previous employer to become full-time CEOs of new firms within GICE. A subsequent section on partial transition to entrepreneurship is based on the three part-time CEOs. The last group of five CEOs did not meet the criteria for inclusion into the analysis since they had not transitioned from organizational employment to new firm management teams.

4.6 DATA ANALYSIS

4.6.1 Why Employees Transitioned

We first focus on analysis based on the first round interviews of the first four CEOs described in Table 4.1 who had made a full transition to entrepreneurship by the time of the study. At an appropriate point during the first interview, each of the CEOs was asked “why did you depart from your former employer to join the new firm management team in GICE?”. Transcribed texts in answer to this question were analyzed by looking for the keywords *because* and *since* within the text (Miles & Huberman, 1994: 61)³⁵. In line with the reviewed literature on employee transition to entrepreneurship, these responses were categorized as either exerting a “push” or “pull” influence on the employee decision to transition from organization employment to join the new firm management team.

³⁵ Emphasis in the original

4.6.1.1 Push influences

It is worth noting the four CEOs held middle management positions in their previous employer firms. The extracts from the all four CEOs in Table 4.2 shows a discontent with a past decision or perception of inability to influence past or future decisions by the top management in the employer firm. From the text extracts, the common factor in the reasons why the three employees transitioned from previous employment relate to inability to influence corporate level decision making in their employer firm. This inability is somehow related to the previously discussed “glass ceiling” effect on women and minorities who are said to be discriminated against in corporate level career promotions. Our study results imply that middle managers unable to influence corporate level decisions may have a higher propensity to transition to entrepreneurship compared to other employees. However, in the case of middle management the increased propensity for transition to entrepreneurship does not arise from discrimination practices but from inability to influence important decisions in their employer organization³⁶.

The lack of influence in the decision making in their organizations by the four CEOs in our study was however not sufficient to make them decide to leave their employers. From the extracts in, Alvaro had even considered starting his own new firm but had not yet identified an entrepreneurial opportunity. Further, Xavier only transitioned fully to GICE after two years of partial transition during which he had been assisting GICE management during weekends and

³⁶ Except for Alvaro, the other three CEOs previously worked for multinational companies. Alvaro worked for a company which was represented in most parts of the country. This may indicate that such influences may be more likely in large and multinational countries though our study does not have a way to control for company size effects.

Table 4.2 Reason for transition to new firm management team (sample quotes)

CEO Name	Push influence	Pull influence	Social Network Influence
Alvaro	I was working for several years in one company, a very consolidated company, and the owners of this company decided to sell this company,.. and I could not influence this kind of decision. Therefore, I decided it would be a good thing to be the owner or one of the shareholders of my own company.	It was 2000 and there were many ideas in internet and technology.. it seemed easy to found a company in the IT environment since it was a moment of the bubble but I had not found a clear idea and how to start.	I was a founder shareholder of GICE, all these things happened at the same time. I was a friend of Josemaria, and he had a very clear idea about internet and I thought it was a good idea and I decided to join GICE.
Saxum	There was also a big change in the company, the president who I trusted very much decided to leave the company, so I saw plenty of changes coming into the company and decided maybe that was the good moment to leave.	With Josemaria we start talking about building an ISP (Internet Service Provider). Having a crazy idea and I was helping him also in the technical part.	I was a founder shareholder of GICE. I had been working with GICE on a part-time basis for close to two years (before leaving my former employer)
Xavier	I (was) motivated by the need to work for something smaller where I could have an influence on what was happening. In the big multinationals you are very restricted by many factors, e.g. overall strategy... At some point in my career, I decided I wanted to make a change.	I was even thinking of getting completely new start-up investing money, or even starting something on my own. I had the motivation to go somewhere else, invest some money and take control of a company. GICE offered this possibility.	Somewhere along this way (looking over alternatives) I found GICE. It was recommended (by friends) to me as a good place to work and start things,...so I said ok.
Emmanuel	I worked in big companies and had to discuss with providers, smile with the suppliers, a lot of stress and the money is not bad but the big money goes to the owners	I see an opportunity to go to Catal, near to the sea, in a place that I can do something. But I didn't have an idea (business).	I knew Josemaria but he was not a very close friend of mine because I had met him three or four times before. But I was greatly surprised because he transmitted rectitude very clearly.

evenings. Our study results indicate that the inability to identify an attractive entrepreneurial opportunity may delay the actual transition from organizational employment to entrepreneurship.

4.6.1.2 Pull influences

In the case of the four CEOs, the final decision to transition to GICE was also influenced by the attraction of the entrepreneurial opportunity provided by GICE. A look at the extracts in the column on pull influences in Table 4.2 shows that the four CEOs were attracted by the possibility to participate in the exploitation of an entrepreneurial opportunity which they attributed to the GICE president, Josemaria or GICE itself. Emmanuel, the fourth CEO remarked that he had “no business idea” and also attributed the attraction to GICE due the possibility it offered of pursuing his sailing hobby in the costal city where GICE is located. In particular, all four CEOs had not identified an entrepreneurial opportunity prior to moving to GICE.

The four new firms which the four CEOs were heading all involved electronic commerce and hence required some prior appreciation of Information Technology by the CEOs. It is worth noting that the first three CEOs all came from employer firms in the Information Technology sector. Even the fourth CEO, Emmanuel, whose previous employment was in construction industry had been involved in an IT project prior to his move to GICE. Existing entrepreneurship literature argues that individuals have a higher propensity to identify opportunities closely related to their prior working experiences (Shane, 2000). Our results show that employees can also transition to entrepreneurship to exploit opportunities related to their prior working experience but discovered by other individuals. Related prior working experience may improve the

employee's ability to perceive the value of entrepreneurial opportunities discovered by other individuals. In our study, the related working experience may have increased the inter-subjective agreement on the value of the entrepreneurial opportunity between each of the four CEOs and GICE ³⁷.

4.6.1.3 Social network influences

In agreement with the existing entrepreneurship literature the four CEO who did a full transition to GICE indicated some type of prior social relationships with GICE President, Josemaria. Both Alvaro and Xavier had been founder shareholders of GICE but continued in organizational employment and only joined GICE after four and two years respectively. Though both had a good social relationship with both GICE and Josemaria in particular, the social network influence was not sufficient by itself to make them transition from organizational employment and join GICE. As evident from the extracts in Table 4.2 the two CEOs gave more importance to both "push" and "pull" influences compared to the social network influence in their decision to transition.

The other two CEOs, Javier and Emmanuel, came to know about GICE through friendly but not close relationships with GICE. This result is in agreement with entrepreneurship literature on the importance of weak ties to access resources through social network (Aldrich, 1999). However, our study highlights the importance of considering the particular individual motivations to being a supplier of resources to the new firm. Both Javier and Emmanuel were looking for

³⁷ Differences in inter-subjective agreement on the value of an entrepreneurial opportunity is a key determinant on whether the opportunity is exploited within an existing firm or a new firm (Dew, Velamuri, & Venkataraman, 2004).

entrepreneurial opportunities and only then did their weak ties become relevant in making them aware of opportunities available at GICE³⁸.

Our study points out that social network influences alone, though necessary, are not sufficient to make an employee transition to entrepreneurship. Given the existence of social network influences, the combination of both push and pull influences appear to be a further necessity to motivate employee transition. From our analysis the four full-time CEOs took between four and six months considering the final decision on whether on not to transition to GICE

4.6.2 Transition Process

Our second round interviews sought to understand what actions employees took to facilitate the transition from their former employers to the new firm management within GICE. The perception of an entrepreneurial opportunity was not the only consideration that influenced the decision to transition from organizational employment to new firm management with GICE. Based on second round interviews, economic considerations were also important in making this decision. Table 4.3 shows the economic considerations and the corresponding pre-emptive actions taken by the first four CEOs in Table 4.1

4.6.2.1 Economic cushion

There is abundant evidence that most new firms fail (Harting, 2005). However, previous studies have not paid attention to how this eventuality influences entrepreneurs' actions before they embark on creating a new firm. Our study shows that three of the four CEOs considered this

³⁸ The question of whether individuals use their social networks influences before or after the "push" and/or "pull" influences seems worthy of further study.

possibility and took precautionary measures to reduce the possible negative impact in case the new firms failed. The third CEO, Xavier, was an exception in this case since he had other sources of income which ensured that he had “his expenses covered” and “even wanted to put more money into shares” as indicated in Table 4.3.

Important for our study is that all four CEOs thought about the possible economic impact of their transition to entrepreneurship before making the final decision to transition. These considerations lead to taking precautionary actions like selling the family house in the case of Saxum to ensure the availability of an economic cushion before making the transition. Table 4.3 also shows that two of the CEOs, Alvaro and Saxum, also considered the possibility of rejoining organizational employment if the economic cushion got exhausted before the new firm proved viable. The fact that both Alvaro and Saxum were somehow certain about their ability to rejoin organizational employment increased their willingness to transition to entrepreneurship. Alvaro not only considered his own re-employability but also that of his wife as he explained

“It was another of the cushion that we had because if the things went bad she (my wife) could work. Because she was a lawyer and was working when we married.. but when (the) children started coming, . she (stopped) working.”

Based on a related episode GICE CEO explained why some employees took a long time to make a final decision to transition saying:

“Normally (it) is the decision to come from a more secure situation to a more unstable situation. These people take a long time. I have an example now of someone who we

Table 4.3 CEOs considerations during the transition process (sample quotes)

CEO Name	Economic considerations	Pre-emptive action
Alvaro	One of the considerations was that my family does not suffer. I do not want my children to go to another school, sell the car, you can't move on the weekends, Moving the house, ... things like that.	(i) I received some amount of money (from a previous family investment) which was enough to survive, I do not remember exactly, one year and half perhaps two years. (ii) I knew my professional skills and was sure that, when I was out of this market, the IT job market, having been a sales manager of a well known company, I was sure I could return to this market.
Saxum	My major consideration was whether we had a cushion, some money which would help in case something went wrong. ... That was one of the main parameter I used with my wife to make the decision.	(i) We sold the family house and calculated that we could live two years without any income. (ii) So I said to them (former employer), "... do you think you can keep my job during the next one year, and if things go wrong, I have the opportunity to go back. And they said, we cannot guarantee you a job, the same job or whatever, but we are happy with you, you have behaved very well but you are welcome if you want to come back"
Xavier	I was not in a situation where I had to worry so much about say income, I had my expenses covered and this helps a lot of things.	I even wanted to put more into the shares and my wife said come on stop.
Emmanuel	When I move here (GICE), my salary was reduced. I think what is the minimal salary that I need to live here?,	My wife's work in Montero was not .. stable but.. she came here (GICE) and got work which I think is another positive thing.

started to talk three years ago, he was working for a multinational and he had a stable situation there and progressing in his professional career and at last he decided he wants to change his life and to be in a small company deciding about the strategy and things more closer to the owners of the company. And after three years he has come to GICE”.

4.6.2.2 Partial transition to entrepreneurship

During the second round interviews, we interviewed three CEOs in GICE who were still working on a part-time basis with their new firms. The three-part time CEOs are Joseph, Mercy and David and their descriptive information appears in the last three rows of Table 4.1. All three were involved in creating new firms based on entrepreneurial opportunities they identified different from the first four CEOs in Table 4.1 who were exploiting entrepreneurial opportunities identified by GICE management. Both Mercy and David were current full-time employees of GICE and continued with other activities within GICE in addition to dedicating part of their time as CEOs in new firm creation activities within GICE. Each of the three part-time employees contributed at least 30% of their income from GICE towards buying shares in their respective new firm. Based on our previous distinction between full transition and partial transition to entrepreneurship, the three employees had done a partial transition to entrepreneurship since they retained their previous jobs with the employer firm, were involved in new firm management activities, and held a significant proportion of their new firms.

Mercy joined GICE as a business development manager and one of her main tasks was to interview prospective candidates who wanted to join GICE as entrepreneurs. She identified her entrepreneurial opportunity after being with GICE for five years. At the time of the interview,

June 2006, she dedicated eighty percent of her time to GICE management and the rest to creating the new firm as a part-time CEO³⁹. In comparison, David had already identified an entrepreneurial opportunity prior to joining GICE as the marketing manager. Nine months later he proposed his entrepreneurial idea to GICE management and it was approved. At the time of the interview David had been working as a part-time CEO for eight months. GICE had already hired someone to replace him in the marketing position so that he could dedicate himself on a full-time basis as CEO of the new firm but this new person was still undergoing training at the time of the interview. To become part-time CEOs, both Mercy and David had to agree that part of their salary in GICE would be invested as capital in their respective companies.

Joseph on the other hand was a full-time employee of a governmental body, Catal, but he was able to dedicate on average two hours per day as the part-time CEO of the new firm which he founded within GICE in February 2006. Joseph had come up with the business idea two years earlier but could not start the new firm due to professional work demands with his previous employer. He hoped to become a full-time CEO of his new firm once the business idea proved viable.

We asked the three part-time CEOs why they had initially started working in that status and the prospects of changing to full-time CEOs in future. We also sought a similar explanation from GICE management. The replies of the three CEOs and GICE management appear in Table 4.4. From these replies it is apparent that the initial part-time CEOs status may have advantages to both the transitioning employees and to the new firms.

³⁹ During the interview Mercy also indicated that she dedicated some time to the new firm “ at night, after dinner ”

Table 4.4 Choice of Part-time CEO Status

CEO Name	CEO view	GICE Management view
Joseph	I have an employment contract with Catal, where I earn a living as a project manager.. and also in GICE I'm running this other project, which seems to be going well." "There may come a time –in a year or two, I guess– when I'll have to decide what I want to do. Whether I want to move to GICE, forget Catal and put all my effort into earning a living this way."	These businesses are easier to manage than others. Firstly, because there is hardly any competition, and secondly, because the market they're targeting is simple and not too enormous. That makes it easier to take them on part-time basis. – GICE President
Mercy	I am developing something that I like very much... This year has been very hard. I am looking forward to reduce my work with GICE and increase my time for (the new firm).. since GICE management does not want me to leave this (my current job). . At least I would like to do fifty percent, fifty percent.	If it is a small business, then this is possible (part-time CEO status) , if we want to start a big business then it is not possible. For example, Joseph's is a very small business and it is possible to do with a part-time CEO, dedicating ten to fifteen hours per week. It depends on the business. – GICE CEO.
David	I started full-time in marketing department. After some months, I proposed the launch of (the new firm). And during these eight months I dedicated my time to both things. On April last year we needed to give the project as a maximum speed as possible and we decided it would be recommendable that my dedication was full-time.	

A part-time CEOs working arrangement was advantageous to organizational employees since it ensured they had an ongoing income which provided them with an economic cushion. Since such employees do not need to do a full transition from organizational employment to entrepreneurship they are assured of regular income from their ongoing employment in existing firms. This income provides an economic cushion enabling the employees to test the viability of

their new firms while remaining in organizational employment. This is evident from Joseph's comment and his further remark that,

“In the short term I have a salary from my job at Catal and that's enough to live on. ... If not it would be a big risk.”

The part-time CEOs working arrangement was also advantageous to GICE in that it did not have to engage the services for CEOs on a full-time basis while they only needed them on a part-time basis. This was possible because within a business incubator like GICE, non-core administrative tasks could be carried out by the business incubator staff. The amount of CEO time required in new firm creation activities also varied between different new firms as indicated by the comments of GICE management. The part-time CEOs working arrangement made it possible for GICE to try out the viability of entrepreneurial opportunities identified by the two employees while the employees remained in their previous job during this period. In addition, the cost of this “try out” period was reduced by having the employees dedicating part of their salary income towards purchase of ownership shares in the new firms.

4.7 DISCUSSION OF RESULTS AND PROPOSITIONS

4.7.1 Transition by Middle Managers

Existing studies on the “glass ceiling” have focused on discriminatory practices against women and minorities in promotions to top management positions within organizations (Cotter, 2001). Empirical evidence shows that women unable to get promoted to top corporate positions have a higher propensity to transition to entrepreneurship (Terjesen, 2005). Our result shows that inability of middle managers to influence top management decisions may increase their

propensity to consider leaving their employer organizations and possibly transition to entrepreneurship⁴⁰.

One way in which middle managers may influence top management decisions would be by getting to top management positions themselves. However, the little existing academic and professional research shows that increasingly middle managers are unhappy with the limited prospects for advancement in their organizations. A study of 670 US middle-level managers found that upper-level middle managers indicated lack of promotion opportunities as one of the causes of increased turnover of middle-level managers (Zimmerer & Taylor, 1989)⁴¹. Similarly a recent study of 225 US middle managers by Accenture, a global management consulting firm, found that only 28% rated the way their employer organizations manage prospects for middle managers career advancement as good or excellent⁴². Similar to the findings on the “glass ceiling” effect our results shows that such “unhappy” middle managers with limited chances of promotion may have a high propensity to transition to entrepreneurship.

Theoretical and empirical evidence shows that managers, especially of large firms, may have difficulties in identifying entrepreneurial opportunities due to limited interactions with exposure to activities outside their employer organizations (Dobrev et al., 2005; Sorenson, 2006b). Thus even though the middle managers may want to transition to entrepreneurship, lack of entrepreneurial opportunities may keep them in their old jobs. A transition is then more likely to

⁴⁰ Whereas this result indicates that the “glass ceiling” concept may extend to other employees with limited chances of promotion, such an extension is outside the scope of this study.

⁴¹ Other reasons were low pay, lack of autonomy and inability to use their skills in the job environment.

⁴² U.S. Middle Managers’ Satisfaction with Employers Drops, Accenture Survey 2005, http://accenture.tekgroup.com/article_display.cfm?article_id=4275, accessed on March 8, 2007.

occur not as a lone entrepreneur but to join a lead entrepreneur by becoming a member of a new firm management team. As our study shows, and in agreement with existing entrepreneurship literature, middle managers may use their social networks to identify such lead entrepreneurs.

Proposition 1:

The propensity to transition to new firm management team is higher for middle managers compared to other organizational employees.

Proposition 2:

The propensity of middle managers to transition to new firm management team is dependent on their social networks to lead entrepreneurs

4.7.2 Partial Transition before Full Transition to Entrepreneurship

Given that it is commonly known that most entrepreneurial activity fails, the possibility of new firm failure would be expected to influence the decision of an employee's transition to entrepreneurship. Previous studies have shown two mechanisms which entrepreneurs use to reduce possible adverse economic effects on the entrepreneur in case of failure in entrepreneurship: having a working spouse (Blanchflower & Oswald, 1998) and increased savings before embarking on entrepreneurship (Harting, 2005). Our study results point to a third mechanism: an economic cushion from the income coming from on-going organization employment parallel to the new firm creation activities.

Empirical evidence shows that a sizeable proportion of both part-time and full-time organization employees are concurrently involved in entrepreneurial activity outside their employer

organization. For example, a study based on a representative sample of 1,016 individuals showed that 3.9% (3.3%) of the part-time (full-time) US employees were involved in new firm creation activities (Reynolds, 1997)⁴³. Similarly, using a longitudinal sample of 64,622 US households, the proportion per 100 U.S. part-time employees involved in new firm creation activities was found to range from 6.80 for white women to 13.00 for black men. These proportions are higher than those of full-time employees involved in new firm creation activities which ranged from 5.50 for white women to 11.60 for black men (Reynolds, Carter, Gartner, & Greene, 2004). From these empirical findings, part-time employees have a higher propensity to engage in new firm creation activities than full-time employees.

Proposition 3:

The propensity for employees to transition to entrepreneurship, including joining a new firm management team is higher for part-time employees compared to full-time employees.

The notion of partial transition to entrepreneurship within established firms is unheard of in existing entrepreneurship literature which indicates that employees must normally leave one firm to create another (Dobrev et al., 2005). Whereas the initial period of new firm creation may be time demanding, not all the activities need to be carried out by the entrepreneur. The results of our study imply that existing firms may foster entrepreneurship by facilitating employee partial-transition in two ways: (1) Creating a business incubator within the firm where employees have the possibility to pursue firm approved projects on a part-time basis and, (2) Flexible work time arrangements that allow employees to participate in new firm creation activities outside the firm.

⁴³ This study further found that “over 80% of those trying to start a new firm are engaged in full- or part-time work or are self-employed” (Reynolds, 1997: 460)

The ongoing employment with the existing firm provides an economic cushion as the transitioning employees test out the viability of their entrepreneurial opportunities⁴⁴.

Proposition 4:

The propensity for employees to transition to entrepreneurship is higher for employees having flexible working hours.

Our study also shows that the prevailing job market conditions influence whether or not employees transition to entrepreneurship. During periods of low unemployment employees are more likely to exploit the identified entrepreneurial opportunities given the high likelihood of rejoining the labor market in case they failed in entrepreneurship. On the contrary, employees would be less likely to transition to entrepreneurship in times of high-unemployment given the reduced chances of re-employment. If our assertion is true, we would expect the employee transition rate to entrepreneurship to be inversely related to prevailing unemployment

Proposition 5:

The propensity for employees to transition to entrepreneurship is inversely related to the prevailing unemployment rate.

4.8 CONCLUSION

Case studies are ideal when investigating phenomena for which little is known. By taking advantage of a unique organizational setting, with multiple case studies, we have obtained some insights on why and how employees may transition to join the management teams of new firms

⁴⁴ We recognize the possible conflict of interests that may arise due to the difficulties the established firm may have in monitoring the transitioning employee activities.

and to entrepreneurship in general. In terms of Yin(1994), an exemplar case study is characterized by extreme or unique circumstances that provide an ideal setting for studying the phenomenon under investigation. Our multiple case study could be considered an exemplar in that we have identified a previously unknown process: partial-transition to entrepreneurship.

Our results show that a combination of influences from social networks, push and pull factors, and the availability of an economic cushion are all necessary and jointly sufficient to make employee transition from organizational employment to entrepreneurship. Further, an initial period of partial transition to entrepreneurship parallel with ongoing organization employment may foster full transition to entrepreneurship. Finally, our study shows that employee transition rate may be dependent on prevailing unemployment rate.

A major concern with case studies is the limitations of generalizing results due to the specific nature of the case (Yin, 1994). We point out two limitations that may be specific to the mixed case studies used in this study. First, it may be difficult to replicate the GICE business model outside the business incubator environment and especially outside the technology sector. Secondly it is important to recognize that the management style of GICE president who seems to have an inborn gift in spotting the right people to join and remain with GICE as entrepreneurs may also limit generalizability. In the eight years of GICE existence only one entrepreneur had left GICE to join another firm. Despite these limitations the case has provided insights worthy of both managerial and policy considerations.

Given that employees who transition to entrepreneurship are more likely to be exploiting valuable entrepreneurial opportunities, a case may be made for encouraging such transition at society level. The little existing research shows that new firms founded by such employee may have a better survival and growth rate in comparison to other new firms (Burton et al., 2002; Christensen et al., 1996). At firm level, our study shows that firms may increase employee entrepreneurial activities by fostering flexible working arrangements. At society level, it would appear that one way to encourage employee transition to entrepreneurship would be by promoting part-time or flexible time employment.

Finally, at a theoretical level, this paper introduces the concept of partial transition to entrepreneurship in contrast with prior literature which has focused on full transition to entrepreneurship. Existing entrepreneurship literature, biased by existing work patterns in established firms, has failed to recognize the possibility of having part-time or flexible-time CEOs. The study also opens up for debate whether full-time employment is incompatible with parallel entrepreneurial activity and if so to whose advantage or disadvantage.

5 OVERALL CONCLUSIONS AND FUTURE RESEARCH PROPOSALS

5.1 INSIGHTS FROM THE DISSERTATION

The three papers which comprise this dissertation are closely related to the question of why and how some employees and not others transition from organization employment to entrepreneurship (Venkataraman, 1997). The motivation derives from both the recognized importance of entrepreneurship in economic development (Shane et al., 2000) and emerging indications that entrepreneurial activity by former employees achieves better performance compared to that of other individuals (Burton et al., 2002; Christensen et al., 1996). In particular, the dissertation provides some key insights into how family influences interact with organizational influences during the employee transitions process. To conclude the dissertation, we highlight some general contributions and point to possible related research questions

In the first paper, arguments were made that parents low performance in entrepreneurship may improve their children subsequent performance in entrepreneurship. The empirical support for this claim remains to be established. An important difficulty in proving this claim will be to define and measure entrepreneurial activity performance. Similarly, the model developed at the end of first paper illustrates the many theoretical and empirical questions that still wait to be established in this area of research. For example, the model was instrumental in our realization that previous entrepreneurship literature dealing with employee transition had ignored transitions to new firm management teams an issue we addressed in the third paper.

The second paper brings up the need for firms to bear in mind family background of their employees. Even though the paper only focuses on how such a background influences an employee propensity to transition, a similar influence may be expected for employee entrepreneurial activity within the firm. Further, the paper shows the need to consider how other parental or family activities may influence employee activities within the firm. For example employees job union opinions have been shown to be highly related to those of their parents (Barling et al., 1998). With the changing family definitions and demographic changes (Aldrich et al., 2003), studies that establish which family influences extend to the period after a child becomes an organizational employee may be worthwhile.

The third paper is a bit different in that it considers the family influence emanating from an employee's immediate family i.e. wife and children, and not the employees parents as is the case with the other two papers. The paper shows that fears on how possible failure in entrepreneurship may affect the immediate family can delay or negate an employee transition to entrepreneurship. The possibility to initially do a partial transition to entrepreneurship is argued to be a way to alleviate such fears. This insight provides some indication that societies which encourage flexible working hours may be facilitating employee transition to entrepreneurship. This claim needs to be investigated in further research work.

Finally the dissertation calls to question the assumed harmony between governments and firms in regard to encouraging employee transition to entrepreneurship on three accounts. First, it is recognized that all entrepreneurial activity emanates from an individual or group of individuals (Shane et al., 2003). Second, most of such individuals are likely to be organizational employees (Audia et al., 2005a) and third, the value of entrepreneurial activity may be higher external to the existing firm or worse not interesting to the existing employer firm. (Cassiman et al., 2006). Whereas government efforts to encourage entrepreneurship have at times focused on specific groups or

industrial sectors (Venkataraman, 2004) our dissertation seems to suggest that a focused program may be called for towards organizational employees. Employees who discover opportunities that are not attractive to their employer firms could be encouraged to transition to entrepreneurship given the externalities which such activity may generate for the general society.

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