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# WHOM DO GROWING FIRMS HIRE? A LONGITUDINAL INVESTIGATION OF NEW VENTURES ACROSS GROWTH RATES AND PHASES

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## ABSTRACT

We address issues related to whom new ventures hire as a function of their pace of growth. Our results are based on a study of over 360,000 hiring decisions among Swedish new ventures between 2007 and 2013. In order to study whether the recruitment decision is dependent on the growth rate, we divide growing firms into five categories based on their sales growth rate over a three-year interval. We find a unique pattern of new venture hiring practices that differ along the growth rate distribution, including stark contrasts between the fastest-growing and slow growth firms. Implications for theorizing and empirical examinations of growth firms are discussed.

## INTRODUCTION

The main emphasis in the literature on new venture growth has been on the factors that lead to growth rather than on *how* these firms grow (McKelvie & Wiklund, 2010). Importantly, within the how firms grow stream of research, there has been little understanding of whom new ventures hire (Chandler et al., 2009; Coad, et al., 2014). This is a major oversight as adding employees to new firms is vital given the key role that many early-stage employees play (Cardon & Stevens, 2004; Greer, Carr, & Hipp, 2015), and the enduring impact these employees have on the future development of the firm (Barron, Hannan & Burton, 1999; Heneman, Tansky & Camp, 2000). Even when new firms are founded with teams, they will need to hire at some point if they expect to grow (Demir, Wennberg & McKelvie, 2016; Jack, Hyman & Osborne, 2006).

In this paper, we examine the characteristics of the individuals that are hired using a matched employer-employee dataset from Statistics Sweden. We separate the new ventures based on their growth rate, thereby showing understanding of the different paces of growth (Delmar, Davidsson & Gartner, 2003) and the differing challenges that new ventures face as they grow (McKelvie & Wiklund, 2010). Building upon ideas of human capital, we examine the employees' demographic factors, such as age, gender, education, and immigrant status of the employees. We are thus able to capture the full spectrum of new firms and their hiring activities as well as the employees they hire.

This topic and our study are important for two reasons. First, although hiring is viewed as an important part of growth, there is surprisingly little research that has addressed this issue of whom growing firms hire. This is useful as the majority of the new firm growth and development literature has assumed that firms are able to add employees, but without concern for the timing or matching factors in doing so (Wiklund, Davidsson & Delmar, 2003) or by adopting an economic perspective on hiring (Chandler et al., 2009). We capture both the employee and firm characteristics, circumventing traditional limitations. Second, new firms often struggle to recruit key employees (Barrett & Mayson, 2006; Greer et al., 2015), as many more traditional employment opportunities may be viewed as less risky and with greater structure (Cardon & Tolchinsky, 2006; Heneman et al., 2000). As such, we are able to discern patterns in terms of the characteristics of those who elect to join new firms in an employment situation.

## THEORY

New ventures face differing management challenges as they grow. These obstacles are likely to depend on the growth rates of new ventures, with high-growth firms having greater management challenges than those growing more moderately (Delmar et al., 2003; Demir et al., 2017). For the fastest growing firms, there are challenges related to the need for developing structure and routines as part of organizational development. For those firms that add substantial numbers of employees in a short period of time, there is a need for formalized HRM systems, recruiting and training of new hires to ensure that they acclimate to their new positions, ensuring that there is sufficient managerial capability and oversight to ensure that the new hires conduct their work appropriately, among other challenges (Chandler et al., 2009; Demir et al., 2017). One key aspect when dealing with these challenges is the decision to recruit or not and if yes how many, which ultimately might determine whether high-growth firms are able to sustain their high growth rates (Coad et al., 2017; Wiklund, Davidsson & Delmar, 2003).

However, theory gives us no clear answer whether and how the recruitment decisions of differences across rates of new venture growth. For example, do the needs for specific skills and experiences differ? Is this a reflection of the immediate need to achieve growth to achieve organizational goals? There is some research that has addressed these hiring differences as a function of firm size (Barber et al., 1999; Deshpande & Golhar, 1994), but not for differing growth rates. Ultimately, the answer depends on whether the growth rates of rapidly growing new ventures depend on whom they hire, or whom they hire is determined by their rapid growth rates.

The latter explanation is based on the assumption that the matching process on the labor market is characterized by asymmetric information and high search costs (Mortensen & Pissarides, 1999). Employers have more information about the positions that they offer than job seekers, while job seekers have more information about their own skills. This is complicated by the fact that employers have incentives to hide facts from the job seekers to get the best applicant, whereas employees have incentives to hide information that might prevent them from getting the position. The time it takes for employers and employees to find each other results in search costs, which ultimately will be determined by how much time and resources employers and employees need to spend in order to get a match. As noted by Coad et al. (2014), high-growth firms may want to minimize search costs in order to take advantage of their growth opportunities. Their focus on the pace of growth means that hire more readily available labor, without regards to specific skill sets and experience. This suggests fast growing new ventures are more likely to recruit individuals that have trouble entering the labor market, such as immigrants, lower educated or unemployed individuals.

However, it might be the recruitment strategies of new ventures that determines growth rates and not the other way around. Human capital theories predict that firms that invest more in human capital also are able to perform better. The logic is that fast-growth firms will have unique requirements and abilities, and that only individuals with high levels of human capital, including management experience (Nicholls-Nixon, 2005), and the ability to be innovative and fit a changing firm (Fischer et al., 1997), will be hired. Penrose (1959) emphasized the importance of hiring individuals with higher levels of human capital in order to adequately deal with growth challenges. In this case, fast growing new ventures will spend more time to recruit new employees and managers that can handle fast growth without a fall in productivity. The benefit of this is that managerial attention can then be directed towards growth projects, since managers are required to do less oversight of new hires. These high human capital individuals may also come at a higher cost and with higher career aspirations inasmuch as they are also likely to seek internal promotions (Feldman & Ng, 2007). This implies that fast growing firms will hire individuals with high human capital and extensive work experience, and thus be more reluctant to recruit unemployed individuals (Penrose, 1959).

Despite the potential importance of adding employees, we still have limited knowledge of growing new ventures' hiring practices. Coad et al. (2014) previously examined the hiring needs of highest-growth firms. They found that high-growth firms tend to hire younger individuals, those with lower education, immigrants and those with previous unemployment. The rationale behind those hiring practices is that these individuals are marginalized on the labor market, and are therefore more easily hirable to the growing ventures. This may therefore be a deliberate strategy to overcome the concern of high growth firms of access to talent as one of their key constraints (Coutu 2014). Nevertheless, the empirical findings in regards to whom is hired are in contrast to previous theorizing, such as that laid out by Penrose (1959), whereby growth firms would focus on hiring individuals with substantial human capital in order to more effectively cope with any growth challenges that might be faced.

However, Coad et al.'s (2014) findings might be a reflection of their focus on the highest growth firms. New ventures facing differing paces of growth will encounter alternate challenges. For instance, in quicker growth firms, the focus on hiring may bring in individuals with weaker labor market positions and quickly, rather than taking the painstaking time and effort to ensure the 'right fit' of an individual. In many ways, the hiring practices of slower growth firms may follow the predictions laid out in transaction cost economics, where the assurances of evaluating, hiring, and then monitoring employees may promote a slower hiring process (Chandler et al., 2009). This might hold among slower growth firms due to the increased likelihood of close ties to the entrepreneur, and allow for more amble vetting and hiring (Rajan & Zingales, 2001; Witt, 2000).

Another limitation with the Coad et al. (2014) study is that their results are based on data from the knowledge-intensive industries exclusively. There might, however, be large industry differences that can influence the recruitment strategies of high-growth firms. Employees in the knowledge-intensive service sector are, for example, characterized by a relatively high level of human capital and may therefore be less likely to hire marginalized labor. On the other hand, many fast-growing forms are also prevalent in low skilled labor industries (Daunfeldt et al., 2015), such as retail, where there may be less need for specific human capital. As a consequence, the costs involved in recruiting specialized labor may outweigh the needs of labor for fast-growing firms in these industries.

One concern of slower growing firms is the impact of adding new employees to the mix and how that might affect the organizational culture (Wiklund et al., 2003). Given the impact of one new employee on the new venture, as well as the likelihood that a new hire may be required to wear multiple hats, it is likely that slower growth firms are likely to take their time in order to determine appropriate organizational fit. In other words, we believe that slower growth firms may only hire individuals whose human capital and experience are more clearly fits to the organization (Lepak & Snell, 1999). The consequence may be a slower process to ensure the fit. This is especially important as our focus is on the non-founding team employees, rather than the initial founders.

## METHOD

Sample = 30,203 new ventures that recruited a total of 362,906 employees throughout the study period, using matched employer-employee datasets from Statistics Sweden. We rank all firms based on their placement in the sales growth rate distribution and divide growing firms into five different growth quantiles based on their three-year sales growth rates, where $Q^5$ include the 5-24 percent of the slowest growing firms (60,149 recruitments); $Q^{25}$ the 25-49 percent of the slowest growing firms (85,121 recruitments), $Q^{50}$ the median growing firms to the 74 percent growing firms (93,505 recruitments); $Q^{75}$ the 25-6 percent fastest growing firms (85,872 recruitments); and $Q^{95}$ the 5 percent fastest growing firms (38,259 recruitments).

DV = equal to one if the firm belongs to growth category $Q^{25}$, $Q^{50}$; $Q^{75}$, or $Q^{95}$, respectively, and zero if the firm is classified in growth category $Q^5$, i.e., our baseline case.

IV = gender, age, educational attainment, employment status, immigrant status based on region of birth, first or second generation immigrant, start up size.

Controls = year-specific, region-specific and industry-specific fixed effects in all regressions

Statistical analysis = linear probability model.

## RESULTS

As mentioned previously, in our regressions we control for year, industry- and region (municipality) fixed effects with robust standard errors. The growth categories are defined on the basis of quantile sales categories, and therefore illustrate varying growth patterns. The results from our linear probability regression model show a unique pattern of hiring practices among new ventures that differs along the growth rate distribution. Fast growing firms seem to place greater value on unemployed individuals, youth, those with lower education and women. They do not, on the other hand, seem to hire those with an immigrant background. This shows that rapidly growing firm do not appear to be overly selective in their hiring decisions, and offer greater employment opportunities for individuals that have problems in entering the labor market, with the exception of immigrants. These findings are a slight contrast to recent studies that examined the HRM practices of high-growth firms (Demir, Wennberg & McKelvie, 2016), whereby the practices and human capital arguments of hiring employees do not seem to be based entirely on complementary skills. This finding may be in line with Barringer et al.'s (2005) result that the fastest growing firms focus less on the candidates' qualifications, but emphasize training and development instead.

Further, we see a slightly different hiring pattern when examining the mid-tier growth firms. Perhaps most notably, we see that immigrants from both western and non-western heritage are more likely to be hired. Younger individuals are also hired by both of these rates of growth firms. The higher growth group ($Q^{75}$) also was more likely to hire individuals with education and women as compared to the slowest growing new ventures ($Q^5$). This shows some overlaps in hiring across growth rates, but also some inconsistencies. The lower tier in terms of growth rate had a tendency to hire western immigrants, unemployed and younger individuals as well as those lacking education.

Combined, and in line with discussions in the literature in regards to ethnicity in growth firms (Chaganti et al., 2008; Neville et al., 2014), we find a relatively direct effect of the ethnical indicators. Indeed, the pattern is quite straight forward -- individuals with an immigrant background are more likely to be hired in slower growing firms but less likely to be hired by the fastest growing firms. This may suggest that faster growing firms are more selective in their hiring decision and are more inclined to make discriminatory decisions in order to avoid workers with a corresponding productivity that may be harder to estimate. This may also be a function of Swedish language skills, where some fast-growing firms may have requirements for direct customer interaction; completing this task may constitute a challenge for some immigrants. Furthermore, we find that the fastest growing new ventures are less likely than the slowest growing firms to recruit employees that have completed higher education. This suggest the exact opposite, namely that rapidly growing firms are unable to find well educated and established workers, and are therefore induced to hire workers that are readily available from the pool of the uneducated and unemployed.

Controlling for region specific effects is also important in understanding growth firms. In earlier estimations, where we did not include municipality fixed effects, all of the ethnic indicators came out positive and significant in all growth categories. This is important as it may explain the perhaps contradictory results we noted above. Notably, immigrants are not uniformly distributed over municipalities, but are rather concentrated in a few areas and industries. This means that the fastest-growing firms, which in general need to hire at a more rapid pace, are in some cases not able to hire immigrants as they may not be as readable present in the pool of readily available local labor. This would explain why we see that the ethic indicators are negative while at the same time the educational dummy has a negative or insignificant impact.

## DISCUSSION & IMPLICATIONS

In this paper, we offer an initial examination of the differing hiring patterns of growing new ventures in Sweden. By employing a unique and longitudinal dataset that accounts for both the characteristics of the hiring firm and the individual characteristics of the employees, we ascertain whether the recruitment strategies of new ventures depend on their growth rates. We believe that the question of whom growing firms hire has been left largely unexplored, although there are theoretical reasons to believe that this question is of crucial importance for understanding the initial hiring practices and the implications of these hires over the life of the new ventures. Our results begin to address these issues in as much as they can inform the hiring decisions of these new ventures. We are thus able to shed new light on an important aspect of new venture growth (recruitment) that already Penrose (1959) emphasized, but where scholars still have limited understanding.

Overall, we build upon a limited but growing stream of research that addresses the important question of how firms grow, rather than purely how much firms grow. We find that the *how* aspect of growth is indeed quite heterogeneous across firms of different growth patterns. Notably we see that the characteristics of the new hires have notable differences. Perhaps the starkest contrast among these is the comparison of the role of education among the hired individuals. We find that both new ventures with high-growth rates and those with slower growth rates tend to hire individuals with lower education, while the approximately 25% fastest growing firms are more likely to recruit employees that have completed a higher education. Furthermore, new ventures with above average growth rates are more likely to hire recruit first – and second generation immigrants, except for the fastest growing firms. These rapidly growing firms are, on the contrary, less likely than slow growing firms to recruit non-western immigrants. On the other hand, we see that there are some important overlaps among the groups. Most notably is the recurring theme that all growth categories are more likely to hire unemployed individuals in comparison to the slowest growing firms.

We find no support for the notion that fast-growing firms hire individuals with high human capital in order to maintain their high growth rates. On the contrary, high-growth new ventures seem to hire employees that often are marginalized at the labor market, such as low educated and unemployed individuals. This suggests that the recruitment decision of fast-growing new ventures instead is dependent on which employees are readily available on the job market. This finding may be based on rapidly growing firms potentially viewing the costs of hiring or displanting an employee from another firm in comparison to the hiring and training costs of less specialized labor. If the training costs are low, it may make better financial sense to invest in developing 'unique to the firm' knowledge (Chandler et al., 2009) by hiring unemployed or low education individuals. Developing the human capital of new hires via training may have the benefit of further employee loyalty and thereby overcome employee retention issues over found among high human capital individuals.

Although we find some distinct patterns in our results based on three-year growth rates, we readily acknowledge that growth, and especially high growth, tends be a temporary state rather than a permanent pattern (Daunfeldt & Halvarsson, 2015). This means that few firms are able to sustain their very high growth rates over time. As a consequence, very high growth firms may be a 'moving target' over time and may face retrenchment or even exit following substantial growth experiences. This offers an opportunity for future research to examine the different temporal patterns and more specifically the consistency throughout the growth process during which hiring is done. Moreover, although we suggest that there may be industry-based differences in the growth patterns, which we argue might affect the human capital needs of the firms, we do not examine industry effects in greater depth. This constitutes a fruitful area for future research.

There are other important topics for future research as well. For instance, although we look at the characteristics of new hires, we do not examine the dynamics involved in hiring or changes over time. For example, are the hiring decisions during the three-year period related to growth in previous periods? Do high growth firms that hire more educated employees have higher future growth rates than those that hire less educated personnel? How do the characteristics of the founding team affect hiring decisions? For instance, are the recruitments during year 2 and 3 dependent on the characteristics of those that work in the company during the start-up year? We examine early stage ventures, but do not parse out specific age effects. There may be other firm-specific conditions that also affect hiring decisions. For instance, does the level of firm development, aside from growth rate, impact hiring decisions? Does the achievement of a certain milestone – such as the completion of technology development, achieving a baseline financial performance (like breakeven or first sale), or even the establishment of a physical presence – affect hiring decisions? How do the characteristics of the founding team, such as education level and immigrant status, affect future hires? There may also be deeper industry differences as well, such as firms the specific needs for select industries to have higher employee numbers, such as retail, restaurants, or other service firms, as compared to capital or physical asset intensive industries. Our study begins to shed light on some of these differences, and we believe that there is potential in a longer stream of studies that more fundamentally examine these questions.

All in all, by presenting the systematic evidence that new ventures of different growth rates have distinctly different hiring patterns, we are able to provide novel insights that address the oversight in the literature about the non-founding team employees brought into the growth venture. To that end, our findings lend support for recent studies that examined the HRM practices of high-growth firms (Demir, Wennberg & McKelvie, 2016), and human capital arguments of hiring employees with complementary skills. We find other hiring patterns for the moderate and slow growing firms. In particular, we are able to understand both the hiring needs of new ventures – in terms of whom they hire. We are also able to extend the findings of recent research (Coad et al., 2014) that examined the hiring practices of high growth firms in the knowledge-intensive industries.

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