Stockholm School of Economics
Department of Accounting and Financial Management
Bachelor Thesis
June 2021

# Does Prior CEO Experience Lead to Superior Performance?

A Study on the Impact of Prior CEO Experience on Firm Performance in Swedish SMEs.

Timothy Fredin
24420@student.hhs.se

Andreas Olsson
24431@student.hhs.se

**Abstract**

In this study, we investigate how appointing a CEO with prior experience from the CEO position affects post-succession firm performance in Swedish SMEs, compared to appointing a first-time CEO. This is the first study to investigate this relationship in SMEs and in a non-US setting. Apart from impacting firm performance, we also hypothesize that CEO experience impacts the hiring decision of firms, specifically that worse performing firms hire CEOs with prior CEO experience to a larger extent. We examine these relationships by running ordinary least squares regressions on a sample of 154 CEO succession events in Swedish SMEs between 2007-2017. Contrary to studies made on large US firms, we find no empirical evidence for any relationship between prior CEO experience and firm performance in Swedish SMEs. Neither do we find any support for the hypothesis that bad performing firms hire exCEOs to a larger extent. Ultimately, we argue that our study serves as a first indication of the impact of CEO experience on firm performance in SMEs and could provide inspiration for further research in this area.

**Keywords:** SME, CEO, experience, CEO experience, CEO succession

**Tutor:** Milda Tylaite

**Acknowledgements:** We would like to thank Milda Tylaite for her support and feedback throughout the writing of this thesis.

## Table of contents

# 1. Introduction

CEO successions are arguably some of the most critical events during companies' lifespans. The CEO is in many ways the most important and influential person in the organization and the one ultimately responsible for ensuring the competitiveness of the firm. Changing the CEO is associated with large risk, and selecting the wrong candidate can have major implications and be hard to recover from. On the other hand, the right candidate can positively transform the company and take it to new heights. For smaller firms the succession event can be even more challenging, as these firms often lack succession planning (Ip and Jacobs, 2006).

When searching for candidates for the CEO position, previous experience from the job often catches the interest of the board. The CEO position is argued to be significantly different from all other positions (Kesner and Sebora, 1994), and only people with experience of it have a true understanding of what it means. The former McKinsey leader, Marvin Bower once stated that "*the only training for being a CEO, is being a CEO*". Boards and search committees often conclude that prior experience from the position provides a track record and an understanding of the job (Khurana, 2001).

Over the years, much research has been conducted on different aspects of CEO successions and how different CEO characteristics affect firm performance. However, whilst areas such as gender, education, inside versus outside successions and age have received much attention (e.g., Khan and Vieito, 2013; Gottesman and Morey, 2015; Belenzon et al., 2019), research on how prior CEO experience affects post-succession performance have historically been limited and only recently started to gain attention (Hamoria and Koyuncu, 2015). Interestingly, however, and contrary to what the perceptions described above might suggest, the empirical studies that have been made have shown a negative relationship between appointing a CEO with prior CEO experience and post-succession firm performance (Hamori and Koyuncu, 2015; Elsaid et al., 2011; Anterasian et al., 2020). While these studies agree on the negative relationship between prior CEO experience and firm performance, they have solely focused on the largest US firms (S&P 500 and S&P 1000). In this study we take a new perspective by examining this relationship in small Swedish firms. To the best of our knowledge, no research addressing this particular relationship has been done on SMEs or outside of the US. Looking at smaller firms is interesting since the CEO position in such firms is argued to significantly differ from that in large corporations when it comes to factors

such as operational involvement (Lubatkin et al., 2006), and managerial discretion (Hambrick and Finkelstein, 1990). Furthermore, studying SMEs is also of practical relevance. SMEs are key drivers for economic growth, and they constitute the largest business sector in all world economies (Culkin and Smith, 2000). In Sweden, SMEs and micro companies stand for 99.9% of all registered companies, and employ over 60% of the Swedish workforce in the non-financial sector (European Commission, 2019). Despite their central role in the global economy, studies on SMEs continue to be limited as data and information about them are difficult to attain. Accordingly, the purpose of this study is to examine the relationship between prior CEO experience and post-succession firm performance in Swedish SMEs. Our broader research question is defined as follows:

*How does appointing a CEO with prior CEO experience affect post-succession firm performance in Swedish SMEs, compared to appointing a first-time CEO?*

Contrary to previous studies on large US firms, our study finds no empirical evidence for any significant relationship between prior CEO experience and firm performance in Swedish SMEs. Neither do we find any support for the hypothesis that bad performing firms hire exCEOs to a larger extent. We find indications that CEO experience has an immediate negative effect that then reverses over time after the succession. However, we do not consider our empirics strong enough to draw any specific conclusions regarding this. Instead, we recommend future studies to look deeper into this phenomena to see whether these results can be confirmed. Nevertheless, we argue that our study serves as a first indication of the role that CEO experience plays in CEO successions in SMEs and can act as inspiration for future studies in this area.

## 1.1. Contribution

This study contributes to the existing literature in three ways. First of all, it is of practical relevance. As prior CEO experience is generally considered a strong merit, it is worthwhile to examine how such experience affects firm performance. We expect that the study can contribute with valuable insights for companies and recruiters that are in the process of a CEO succession. Secondly, this study is, to the best of our knowledge, the first to examine the relationship between the appointment of a CEO with prior CEO experience and post-succession firm performance in SMEs as well as in a non-US setting. Small firms differ from larger firms in many aspects such as the tasks associated with the CEO role and the impact that the CEO has on firm performance (e.g., Lubatkin et al., 2006). Thus, generalizing

findings from one group to another is problematic. Our study therefore contributes with new insights to the existing literature on SMEs. Lastly, the research in general on CEO successions and CEO characteristics in SMEs is very limited. Focusing on this group of companies can shed some light on the difference between SMEs and large listed firms. Our study can give indications of whether conclusions in studies conducted on large firms are, in general, applicable to small firms or whether they should be applied on small firms with caution.

### 1.2. Scope

Our study is limited to external CEO successions in Swedish SMEs during the years 2007-2017. In line with Elsaid et al. (2011) we only look at external successions in our study. The main reason for this is limitations in data collection as well as potential internal validity issues that may arise since very few internal successors have prior CEO experience. Biggerstaff et al. (2015) find that outside successors have greater discretion in impacting firm culture. Furthermore, Hambrick and Quigley (2014) suggest that outside successors have greater discretion in implementing new strategies. This makes us confident that only studying external successions will provide a good foundation for examining the impact of CEO experience.

### 1.3. Definitions

In our study, we define an SME as a private firm that has between 40 and 250 employees and annual revenues between 10 million to 500 million Swedish SEK. Although the Swedish standard for defining SMEs is 10 to 250 employees (European Commission, 2019), we have chosen to exclude the smallest firms (10 to 40 employees) in order to reduce the number of observations. Since we have to manually collect data on the backgrounds of the CEOs there are time limitations on how many observations we can handle. Furthermore, the publicly available background information of CEOs of the smallest companies is oftentimes very limited.

### 1.4. Disposition

The remainder of this thesis is divided into 8 different sections. In section 2, we present the existing literature and theories in our field of research in order to give the reader an understanding of the topic and provide a basis for our hypotheses. Based on this literature review, we then motivate and formulate our hypotheses in section 3. In section 4 we present

the data collection method as well as the chosen statistical methodology for investigating our hypotheses. Thereafter, we present the results in section 5 and analyze these empirical results in section 6. In section 7 we present our conclusions and lastly, in section 8 and 9 respectively, we disclose the limitations of our study and give directions for future research.

## 2. Literature review

In this section, we provide the theoretical background and previous research on which our study is built. First, we take a broader perspective and examine to which extent CEOs impact organizational performance and how the background of a CEO affects the strategic choices he or she makes. Thereafter we present research and theories on how prior experience affects job performance in order to understand why or why not prior CEO experience might increase or decrease firm performance. After that, we look at why prior CEO experience is often considered a strong merit by hiring organizations. Lastly, we look at the differences in being a CEO in a small organization versus a large one and how this might influence the effect that prior CEO experience has on firm performance in small compared to large firms.

### 2.1. CEOs' impact on firm performance

The top management's impact on firm outcome is an area that has received much attention over the years from scholars within management, finance and accounting (e.g., Carpenter et al., 2004; Adams et al., 2005; Quigley and Hambrick, 2015; Kaplan et al., 2012). However, there is no clear consensus regarding the extent to which CEOs influence organizational performance. Some theorists argue that top leaders play a key role and have a substantial impact on organizational outcomes. For example, Schein (1992) makes the argument that top leaders create and sustain the culture of a firm. Furthermore, Collins (2001) states that the leadership of senior positions plays a key role in the performance and survival of a firm. On the other hand, some theorists rejects these arguments and instead conclude that the top management's impact on a firm is in fact limited and that firm performance is instead largely attributed to environmental factors (e.g., Lieberson and O'Conner 1972; Nienhüser, 2008; DiMaggio and Powell, 1983). For example, Pfeffer (1981) claims that CEOs play more of a symbolic role than a substantive role, where substantive is defined as concrete actions towards performance. However, (Mackey 2008) questions the general methodology used in many of these studies and argues that they underestimate CEOs' impact on firm performance. Instead, she shows that when accounting for what she considers to be "methodological

limitations", the CEO's influence on firm performance is larger. Moreover, Quigley and Hambrick (2015) investigates how the CEO impact on firm performance has changed over time. Their research concludes that "the CEO effect" has increased in later years. Based on this one could argue that the topic of the CEO impact on firm performance is increasingly more relevant.

Many studies show that the degree of CEO influence depends on several organizational and environmental factors. One important factor is the degree of managerial discretion. Higher levels of discretion increase the CEO's effect on organizational outcome while lower levels of discretion put constraints on the CEO's ability to make decisions. Discretion, in turn, is influenced by environmental conditions, organizational factors and individual characteristics of the CEO. For example, industry growth, the weakness of the board and the tolerance for ambiguity can affect managerial discretion (Hambrick, 2007). Furthermore, differences in institutional environments and cultures can affect the CEO's impact. Crossland and Hambrick (2007) examines variations of the CEO impact on firm performance in different countries. They find that CEOs display the highest power and impact on organizational strategy in the US compared to the other countries in the study. Crossland and Hambrick (2011) delves deeper into cultural differences and CEO power, examining 15 countries, of which one is Sweden. They find that Swedish and other European CEOs have less organizational influence than their American counterparts. Other factors that affect the CEO's impact and behaviour are market stability and whether the CEO is an insider or an outsider (e.g., Waldman et al., 2001; Biggerstaff et al., 2015).

## 2.2. The impact of the CEO's background on firm performance

The backgrounds of CEOs are important since the experiences they bring to their new employment directly influence the strategic choices they make (Koyuncu et al., 2010) and how they interpret new information (Walsh, 1988). As such, the personal background of a CEO has an effect on the strategic direction that the firm takes (e.g., Gupta and Govindarajan, 1984) and therefore arguably also firm performance. This research is consistent with the upper echelons theory which states that a firm's strategic choices, culture and organizational performance to some extent can be predicted by the background of the management. Organizational research on the backgrounds of top management can therefore facilitate the understanding of firm performance since the firm outcome will be a reflection of their values and cognitive biases (Hambrick and Mason, 1984). Westerberg et al. (1997) supports this

conclusion in their study of Swedish SMEs. They find that CEO characteristics have a considerable impact on the performance of SMEs.

## 2.3. How prior job-specific experience affects job performance

From a theoretical perspective there is ambiguity regarding whether it is preferable to hire a person with previous job-specific experience versus one without such experience. Different streams of research collide trying to answer this question. In this section, we first present the research and theories within this area that could support the case for a positive effect from prior CEO experience on firm performance and then the arguments that could support the case for a negative effect.

### 2.3.1. The case for a positive effect of CEO experience on firm performance

According to Rynes et al. (1997), organizations expect job-specific-experienced workers to perform better on their job and prefer hiring such workers. Experience is understood by many to lead to a broader set of skills and enhanced performance. Quinones et al. (1995) states that work experience is positively connected to performance, especially when the experience is related to the specific job in question. Although work experience is not always perfectly transferred, it will still allow a person to be better prepared to absorb new information from on-the-job training compared to an individual without prior experience (e.g., Morrison and Brantner, 1992). The presumption is that an educated and experienced individual will be more productive than a person without education and experience. These perceptions can be seen as supportive arguments for the human capital theory. This theory states that education, training and experience can be viewed as investments into oneself. More human capital in the form of experience will increase the likelihood of a person performing well and being the preferred candidate to a position (e.g., Rynes et al., 1997). However, one of the underlying principles behind the human capital theory is that the accumulated human capital is largely portable to other environments. Becker (1962) argues that there are two distinct forms of human capital: firm-specific human capital and general human capital. While firm-specific human capital is tied to a specific organization, general human capital is argued to be portable across different environments. It is argued that in today's digitized world, firm specific managerial capital has decreased in relative importance to general managerial capital (e.g., Murphy and Zabojnik, 2004; 2007). Through computerized records managers have an easier time getting relevant information without spending a large amount of time learning firm

specific processes. Based on this one could argue that CEO experience, which to a large extent includes general managerial skills, has become more relevant over time and that the portability of their skills are increasing.

Several studies in different contexts find support for a positive relationship between prior job-specific experience and performance. For example, McDonald et al. (2008) show that firms that hire outside directors with prior experience of acquisitions display a higher performance in their acquisitions. Dyke et al. (1992) examines how prior venture experience helps entrepreneurs in their new ventures. They find support for improved venture management skills as ventures led by entrepreneurs with prior venture experience are more financially successful. Although not in a business context, Borman et al. (1993) find a positive relationship between supervisor experience and supervisor performance amongst military personnel. While these studies do not focus specifically on the effect of CEO experience, they indicate that job-specific skills are portable across different contexts and can facilitate performance in a new environment.

It is argued that as people gain knowledge and skills through experience, they also gain habits such as cognitive schemas and scripts based on that experience (Gioia and Poole, 1984**;** Markus and Zajonc, 1985). While these can limit problem-solving and the ability to see new perspectives (Rerup, 2005), they can in certain situations be useful. Cognitive biases can lead to quicker decision-making (Khanemann, 2011), which in many situations can be argued to be more important than making the "correct" decision.

Another factor that speaks for the importance of prior CEO experience is the uniqueness of the CEO job itself. Holding the CEO position requires significantly different skills and competencies than other executive jobs. For example, CEOs must handle the board, shareholders and other stakeholders. Experienced CEOs have been exposed to a wider array of position-specific tasks associated with the CEO role and thus have gathered competencies accordingly (Hamori and Koyuncu, 2015). The common perception is that experienced CEOs have a shorter learning curve on the job. Furthermore, McCall (2004) argues that the most effective way of acquiring these competencies is by prior job-specific experience. Handling the pressures of the CEO position and being the one ultimately responsible for achieving the organization's objectives is suggested to be a trait that can only be learnt by experience.

### 2.3.2. The case for a negative effect on performance

As people gain knowledge and skills through experience, they also gain habits such as cognitive schemas and scripts based on that experience (Gioia and Poole, 1984; Markus and Zajonc, 1985). According to Higgins (2006), these are known as career imprints that continue to make an impact on individuals despite a change of environment. These imprints may limit the ability to perform in new environments where different perspectives and new ways of thinking are necessary, as they act as both barriers to retaining new knowledge and increase the propensity to act according to outdated frameworks (Dokko et al., 2009). As such, CEOs who move from one company to another could display worse performance because they use schemas and scripts that worked in the old workplace but may not work in the new workplace. This is in line with the theory of negative transfer of learning, which states that priorly acquired cognitive models are inappropriately used in new contexts, resulting in bad performance (Gick and Holyoak, 1987). Individuals without prior CEO experience may lack some knowledge and skills, however, they avoid the disadvantages of cognitive schemas to a larger extent. Furthermore, Hambrick et al. (2005) find that high job demands increase the propensity for executives to fall back on their mental schemas and shortcuts. It could be argued that the job demand of managers has increased over time due to the increasingly competitive and fast-moving business environment in today's world. Following this logic, the demands of CEOs should be even higher today, which could mean that the negative effect of "old frameworks" is even higher in today's environment.

Hamori and Koyuncu (2015) finds support for this phenomenon in their research on the effect of CEO experience specifically. They relate their findings to the term "*knowledge corridors*" which means that a person is stuck in their old mental habits and cognitive schemes, making it very hard for them to recognise new information that contradicts their current "*knowledge corridor*". They find, in their study of S&P 500 CEOs, significant evidence of exCEOs suffering from these knowledge corridors which obstruct them from adapting their skill-sets to the new environment. Their results show that companies run by CEOs with prior CEO experience perform worse than companies run by first-time CEOs. Elsaid et al. (2011) and Anterasian et al. (2020) find similar results in their studies. Further support for these conclusions is the finding that CEOs who hold an intermediate position before taking on a new CEO position do not display worse performance. This indicates that these CEOs unlearn their old cognitive schemas to a large extent, making them more susceptible to new information and perspectives. However, despite combating the knowledge corridors, exCEOs

who hold an intermediate position still only perform on par with non-ExCEOs (Hamori and Koyuncu, 2015). This raises questions of whether managerial experience is portable at all. The portability of managerial human capital is a debated topic. Whitley (1989), for example, finds that managerial tasks are unstandardized, interdependent and contextual, and thus not easily transferable across organizations.

### 2.4. Why experienced CEOs seem more merited than others

Although experience in general is viewed as a positive attribute according to multiple scholars (Rynes et al., 1997; Almeida et al., 2003), it doesn't quite explain why prior CEO experience specifically is considered by many to be one of the most important types of human capital for a new CEO. In order to examine this we must investigate what makes prior CEO experience so appealing for hiring organizations and in which situations it is preferred.

Boards are oftentimes more concerned about the CEO not being a "disaster" rather than the CEO performing above expectation. Accordingly, they look for any indication that can assure them that the new CEO is not going to bring substantial risk to the company, and prior experience from the position is often the answer (Anterasian et al., 2020). This phenomenon can be viewed through the lens of the agency theory as previous experience has a strong signaling effect. Experienced CEOs have their track record fully displayed on balance sheets and income statements of their former companies. According to Zhang (2008) boards perceive a lower informational asymmetry when hiring outside exCEOs compared to outside non-exCEOs. Search committees display a similar type of behaviour when looking for CEO candidates for their clients (Khurana, 2001). Candidates without this signal must rely on other ways of communicating that they are able to succeed in the role which can be very difficult. Rynes et al. (1997) further highlight the importance of the signaling effect in their study. They find that job-specific experience is often benchmarked as an indication of how good a person will perform on the new job.

Furthermore, the reason behind a succession must also be taken into account when examining why an experienced CEO is oftentimes preferred over other candidates. Some studies find evidence that firms hire experienced CEOs when the organization is suffering from bad performance. For example, Elsaid et al. (2011) find that experienced CEOs were more likely to be hired by organizations with worse pre-succession performance. Furthermore, relating to Hamori and Koyuncu (2015) there seems to be a perception that exCEOs are the safer bet

when suffering from bad performance, and thus perhaps a preferable choice for companies in such circumstances.

## 2.5. The CEO role in SMEs compared to larger firms

A determining factor of the impact that a CEO has and what type of tasks the CEO role will include is firm size. Lubatkin et al. (2006) argues that, since SMEs have less organizational hierarchies and fewer standardised methods, the CEO impact is more pronounced in these firms. Furthermore, due to their smaller size it is expected that these firms have higher managerial discretion (Hambrick and Finkelstein, 1990). It is also argued that smaller firms do not suffer as much from *organizational inertia* (Hambrick and Finkelstein, 1990; Hannan and Freeman, 1984), which is a phenomenon where organizations, due to existing routines, structures and policies, become stagnant and thus reduces managerial flexibility (Huang et al., 2013). This could mean that manager's decisions will have a more direct impact in smaller firms. Hannan and Freeman (1984) argue that larger organizations are more "ponderous" which means that the decisions taken by managers in those firms take longer to be implemented. Larger firms face larger problems with bureaucratic structures, making it difficult to enact change (Hambrick and Finkelstein, 1990). Moreover, Wang et al. (2011) argue that SMEs do not engage as much in long-term strategic planning as large firms. Decisions are taken more on an ad-hoc basis and are mostly based on the mental capabilities of the CEO. CEOs in small firms must also rely on less experienced personnel around them making their decisions oftentimes be based on their personal experiences (Rice and Hamilton, 1979).

The findings that CEOs have larger and more accelerated influence in smaller firms could indicate that the relationships between CEO characteristics and firm performance is more apparent in SMEs than in larger firms. Accordingly, the negative relationship between prior CEO experience and firm performance found in previous studies could be even more pronounced in SMEs since the cognitive habits and schemas of the CEO would be even more manifested in the company's operations. Additionally, it can be argued that CEOs in listed companies have less flexibility in their actions due to factors such as public scrutiny and more extensive regulations (Scaturro et al., 2002). This decreases their managerial discretion compared to CEOs in private companies. These findings further strengthens the argument that a negative CEO impact will be magnified in private SMEs.

Another important difference between being a CEO in a small firm and a large firm is the daily tasks that the CEO is occupied with. First of all, CEOs in large listed firms spend much more time communicating with shareholders, capital markets, media and other stakeholders, and are less involved in the actual running of the firm (Porter et al., 2004). Furthermore, they are exposed to external pressure and public scrutiny to a much larger extent (e.g., Hoff et al., 2002). This requires certain types of general managerial skills which could be more portable as they are less firm specific (Murphy and Zabojnik, 2004; 2007). Based solely on this, one could argue that prior experience is less relevant for CEOs in smaller firms.

On the other hand, in smaller firms, CEOs are more involved in other more operational activities of the firm, and spend less time on long-term strategic planning (Robinson and Pearce, 1984; Sandberg et al., 2001). There is more focus on solving day-to-day problems, handling immediate conflicts and managing employees. CEOs in SMEs are also more frequently in contact with managers and employees across all levels in the organization (Man et al., 2002; Bierly and Daly, 2007), and more often in direct contact with the customers (Burger, 2017). While cognitive schemas and mental habits might be an obstacle when engaging in long-term strategic planning and developing corporate strategies, it might be beneficial when having to make quick decisions in complex everyday environments. Matzler et al. (2007) argue that the ability to make fast and correct decisions in complex environments increases with experience from being in such situations. Accordingly, prior CEO experience could be more beneficial in the working environment CEOs face in smaller firms.

Furthermore, when a person becomes more ingrained and socialized with the new organisation, their old schemas and cognitive biases become replaced with new ones that are more congruent with the new environment (Bartunek and Moch, 1987). As CEOs in SMEs interact more with both employees across all organizational levels and customers, it may lead them to become more rapidly ingrained and socialized with the organization. As a consequence, this may mitigate the effects of knowledge corridors early on.

Another argument that could make the case for CEO experience to positively impact firm performance in SMEs is that CEOs in smaller organisations are onboarding onto an unready firm in some sense. In larger firms there is more often a well-established succession plan in place to help onboard new CEOs. SMEs, on the other hand, oftentimes lack these succession planning processes (Ip and Jacobs, 2006). Furthermore, large firms have, to a larger extent, supportive networks in the form of HR departments (Saridakis et al., 2013), legal advisors,

senior executives and consultants that can support them in the governing of the firm. The existence of such organizational support structures could facilitate the transition process, making it easier for inexperienced candidates to get settled. In essence, it could be argued that new CEOs in small firms are thrown into the "hot air" immediately and have to get operationally involved from day one. This could affect the role that experience from the CEO position plays in CEO successions in SMEs.

Overall it is clear that the CEO role differs significantly depending on firm size and whether the firm is listed or private. It is reasonable to assume that this will impact the effect that prior CEO experience has on post-succession firm performance in SMEs compared to large firms, yet ambiguous to what extent and in what direction. Further highlighting the ambiguity is the fact that other studies find that relationships found in large firms do not necessarily hold true for smaller ones (e.g., Ling et al., 2008).

## 3. Hypotheses

In this section we build on the previously presented theoretical arguments and combine these with empirical evidence in order to develop the hypotheses that lay the foundation for our study.

As previously discussed there is ambiguity from a theoretical perspective whether prior CEO experience is a positive or negative attribute for a CEO. However, the few studies that have been made on this topic have shown that CEO experience is negatively associated with post-succession firm performance (Hamori and Koyuncu, 2015; Elsaid et al., 2011; Anterasian et al., 2020). Nevertheless, these studies have focused on the largest US firms and it is not obvious that we would expect similar results for Swedish SMEs. On one hand, one could expect an even more negative relationship in smaller firms since the managerial discretion and the impact of the CEO is argued to be larger in smaller firms (Hambrick and Finkelstein, 1990), meaning that the negative effects found in previous studies could be even more pronounced in the companies in our study. On the other hand, the presented literature suggests that the daily tasks and the necessary skill set for a CEO in a small organization is significantly different than for a CEO in a multinational corporation. For example, a CEO in a small organisation is far more involved in the daily operations and relies less on organizational support structures. In such an environment one could expect prior experience to have a different effect and perhaps bring positive effects. Overall, while the existing

literature and empirical evidence clearly suggest that prior CEO experience will have an effect on post-succession firm performance, we do not find enough support to explicitly state whether it is positive or negative. Therefore we choose to formulate our hypothesis as a non-directional null hypothesis.

*H0: There is no difference in post-succession firm performance between firms that hire experienced CEOs and firms that hire first-time CEOs.*
*H1: There is a difference in post-succession firm performance between firms that hire experienced CEOs and firms that hire first-time CEOs.*

It is also important to understand the reason behind a succession and how it may play a role when companies decide what characteristics a CEO candidate should have. Different types of firms in different situations might be more or less prone to hire exCEOs. Relating to Hamori and Koyuncu (2015) there seems to be a strong perception that prior CEOs are the safest bet when a firm is suffering from bad performance, and thus perhaps a preferable choice for companies in such circumstances. Elsaid et al. (2011) found that bad performing firms were more prone to hire exCEOs compared to well performing ones. Hamori and Koyuncu (2015), on the other hand, found no such relationship. However, if it is the case that exCEOs generally inherit worse performing firms than non-exCEOs, this could be an explaining factor for an eventual difference in performance between the two. This leads to our second hypothesis which is formulated as follows:

*H2: Pre-succession firm performance is negatively related to the probability of hiring a CEO with prior CEO experience.*

# 4. Methodology

We structure this section into two different segments. First, we explain the method used for data collection and how we construct our final sample. Then we present the research design and the statistical tools used to test our hypotheses.

## 4.1. Data Collection

The purpose of the data collection is to arrive at a good sample of CEO succession events in Swedish SMEs in order to be able to compare the post-succession firm performance between firms that have appointed exCEOs and firms that have appointed first-time CEOs.

### 4.1.1. Sample

We construct our sample by using the Retriever Business database. Retriever Business contains information about all firms registered in Sweden, both private and public as well as all types of legal forms. First, we screen for all companies in Sweden that fulfill the following criteria; 1) is a limited private company (privat aktiebolag), 2) has between 50 and 250 employees[1] 3) has annual revenues of between 10 million and 500 million SEK. We include inactive firms in order to reduce the risk of survivorship bias in our sample. Furthermore, we exclude financial and insurance companies, political and special interest organizations, education & research organizations, and public companies. We do not include these companies since they have significantly different business structures, performance, regulatory environments and purposes of doing business (e.g., Penman and Zhang, 2002; Megginson and Netter, 2001). Not excluding these firms would distort our sample. This gives us a sample of 4352 companies.

The Retriever Business database contains information on who the current CEO of a company is and when he or she was appointed. Thus, we are able to extract information about when the latest CEO succession took place in the company. These are the CEO successions that will be the basis for our study.

Since we have to manually collect the background information on the CEOs one-by-one, we have to restrict our sample. We therefore only include CEO successions that have occurred between 2007 and 2017. We do not include successions that have occurred after 2017 since we require three years of performance data. Having an interval of ten years means that we have observations spanning over an entire business cycle, allowing for more general conclusions. This reduces our sample by 2583 observations.

We are aware that some problems with sampling bias may arise when screening for companies as of today and then go back in time to find the latest successions. For example, a company that has more than 250 employees today but had less than 250 at the time of the CEO succession will not be included in our sample. This is problematic since it could mean that some, supposedly high performing, firms have grown out of the sample. Furthermore, there will also be firms that have grown into our sample, either bad performing larger

[1] We are aware that our initial screening criteria of 50 to 250 is not consistent with our 40 to 250 employee definition of an SME. However the Retriever database does not allow a criteria of 40 employees, and manually collecting companies that have 40-50 employees as of today would not be possible due to time restrictions. However, among the companies that have between 50 and 250 employees as of today, multiple had between 40 and 50 employees at the time of the succession and these are included in our sample, in line with our definition of an SME. We include these firms to increase our final sample.

companies or high performing smaller companies. To mitigate these issues we add firms that have between 500 million SEK and 1 billion SEK in revenues or between 250 and 500 employees as of today, which increases our sample with 416 firms. This allows us to capture some of the firms that have grown out of our sample. After this we manually investigate which firms that fulfilled our criterias for an SME at the time of the latest succession and exclude those who did not. This excludes 837 observations from our sample.

After attaining this sample we remove observations that can distort our sample due to the characteristics of the ownership structure. Firstly, we exclude all companies that are either owned by the public sector or whose operations are tax financed. These firms differ in terms of firm performance (Megginson and Netter, 2001), are surrounded by a distinct regulatory environment and have more public scrutiny (Rainey et al., 1976). We remove sport and non-profit organizations for the same reasons. Secondly, we consider the independence of the firm. A large problem with collecting data on SMEs is that many firms are part of a larger group where it is possible to move resources and "profits" between companies. This means that performance numbers based on the financial statements could be manipulated and therefore not accurately reflect the true performance. It is reasonable to assume this phenomenon is especially prevalent in companies that are subsidiaries of foreign companies (e.g., Facebook Sweden AB) and we therefore exclude such companies. Adjusting for both of these issues reduces our sample to 892 companies.

Since we are not able to exclusively select consolidated companies on the Retriever database we are exposed to the potential issue of duplicates since there may be two or more companies within a group with the same CEO. In such cases we collect information on the consolidated level and remove the other observations. In total, we identify 28 duplicate CEOs.

For some companies no succession event has occurred during the company's lifetime; rather, the currently appointed CEO is also the first appointed CEO of the company. We remove these "no-succession companies" from our sample. After this, we are left with 690 succession events in our sample.

After arriving at this sample of CEO succession events, we now start to collect the data on the background of the appointed CEO. We collect this data from either the company's website, trusted third-party websites such as *Cision news* or the CEO's Linkedin profile. If no data could be found from either of these sources, we exclude the observation from the sample. 282 observations are excluded due to a lack of information regarding the background of the CEO.

### 4.1.2. Categorization

**Outside successions**

A CEO is classified either as an insider or an outsider. In line with Graffin et al. (2011) we define an outsider as a new CEO who has had no previous engagement with the firm, either operationally or through board engagement. However, we allow the outsider CEO to take up another position in the firm for up to 1 year before assuming the role of CEO and still count as an outsider, which is in line with Hamori and Koyuncu (2015) and Naveen (2006). Since the focus of our study is outside successions we exclude all inside successions. This removes 250 observations from our sample.

**Experienced CEOs VS non-experienced CEOs**

We have defined CEO experience as having held at least one CEO position prior to the succession event, which is in line with Hamori and Koyuncu (2015) and Elsaid et al. (2011). If the sources we look at do not mention the individual having held a CEO position at a prior company, we conclude that they do not have prior CEO experience.

### 4.1.3. Final sample

We now match our sample with financial data from the Retriever Business database. We had missing values for our dependent variable *(Return on Assets)* in 11 succession events, equaling a total of 16 firm-year observations. For 4 of these firm-year observations we were able to manually collect the missing data points from the companies' annual reports. For the succession events where the values for our dependent variable are missing for all three years after the succession we exclude the observation. The same applies to the control variable *firm performance pre-succession*, where we exclude observations where financial data is missing for all three years prior to the succession. 4 succession events were removed due to missing data. In the cases where we have values for one or more of the years but not for all years we keep the observation but replace the missing value with the average of the values we have. We argue that the benefit of keeping these observations, and thereby increasing the sample size, outweighs the risk of a distorted sample.

*Table 1: Sample creation*

| **Categorization** | Adjustments | % Change | CEO Successions |
|---|---|---|---|
| Initial screening | | | 4352 |
| CEO succession outside of time range 2007-2017 | (2583) | (59%) | 1769 |
| Companies with 250-500 employees and 500 million - 1 billion sek in revenue | +416 | 10% | 2185 |
| Not an SME at the time of CEO succession | (837) | (19%) | 1348 |
| State owned, tax financed, sport or non-profit | (201) | (5%) | 1147 |
| Foreign ownership | (255) | (6%) | 892 |
| Duplicates | (28) | (1%) | 864 |
| No-succession companies | (174) | (4%) | 690 |
| No information on the background of CEO | (282) | (6%) | 408 |
| Inside successions | (250) | (6%) | 158 |
| No financial information | (4) | (0%) | 154 |
| **Final Sample** | | | 154 |
| ExCEOs | | 45% | 70 |
| Non-ExCEOs | | 55% | 84 |

*Note: 8 ExCEOs and 6 Non-ExCEOs are identified as uncertain*

### 4.1.5 Outliers

We deal with outliers in the following way: First, we list the extreme values of our dependent variable and investigate those in order to see whether they stem from data errors or are valid values. None of them resulted from pure data errors. We then use the Cook's distance method, developed by Cook (1977), in order to identify influential data points and remove those that have a value that exceeds a certain threshold. We use the conventional threshold of 4 / number of observations (Algur and Biradar, 2017). When replicating three accounting studies Leone et al. (2016) finds that the Cook's distance method outperforms both winsorization and truncation in capturing extreme values and inferences. By using this method, 9 observations are removed in our first model and 26 in our second model. For the regression used to investigate our second hypothesis we remove the same outliers as for model 1 to ensure that we investigate both hypotheses based on the same sample of CEO successions.

## 4.2. Statistical Method

In line with Hamori and Koyuncu (2015), the relationship between the variables of interest in our study is estimated by running ordinary least squares (OLS) regressions. In order to test our first hypothesis, we develop two different regression models which give complementary insights into the impact of CEO experience. For the second hypothesis, we develop a two-step regression model. These models are described in detail below.

### 4.2.1. Regression models for hypothesis 1:

Our first regression model used to test hypothesis 1 is inspired by the model used by Hamori and Koyuncu (2015). In this model, we use the three-year average ROA as our dependent variable. Using three-year average ROA mitigates issues with abnormalities in a single year's performance (Carpenter and Sanders, 2002). Furthermore, prior research indicates that a time period of three years is necessary to fully capture the effects of a CEO succession and the following firm performance (e.g., Karaevli, 2007; Hamori and Koyuncu, 2015; Datta and Rajagopalan, 1998). In this model, we use the year of succession as the basis for year fixed effects.

*Model 1:*

$$ROA_i = \beta_0 + \beta_1 CEO\_experience_i + \beta_2 Age_i + \beta_3 Education_i + \beta_4 Gender_i + \beta_5 Industry\_experience_i + \beta_6 Duality_i + \beta_7 Firm\_size_i + \beta_8 Independency_i + \beta_9 \text{ROA\_pre\_succession}_i + Industry\_fixed\_effects + Year\_fixed\_effects + \varepsilon$$

Although this model provides valuable insights into how CEO experience affects firm performance, particularly for a longer tenure such as three years, we argue that we can add additional value by also investigating the yearly effects of having an experienced CEO.

We have therefore developed a second regression model as a complement to the first one. In the second model, we include all firm-year observations (i.e. not average values) and add interaction variables in order to see how CEO experience affects firm performance for all individual years following the succession. The independent variable *CEO experience* is in this model used to capture the effects of CEO experience in year one. The interaction variable *Year 2*CEO experience* takes the value 1 if the CEO has prior CEO experience and the firm-year observation is the second year post-succession, and 0 otherwise. This variable captures the incremental effect of CEO experience in the second year after the succession event. In the same way, the variable *Year 3*CEO experience* captures the incremental effect of CEO experience the third year after the succession. This model will add value in three ways. First, it allows for more profound insights as it captures how the effect of CEO experience varies over the years following the succession. Second, it increases the number of observations which is positive considering our limited sample size. Third, it allows us to better capture the year fixed effect as we can now perfectly match each observation of the dependent variable with a specific year.

As will be discussed below, we cannot confidently state that our second model does not exhibit heteroskedasticity. Furthermore, the usage of panel data means there is a substantial risk of having error terms that are correlated across time. This phenomenon is referred to as autocorrelation and creates a bias in the estimated standard errors in the regression (Wooldridge, 2009). We control for these issues by using robust estimation methods clustering on firm level (Hoechle, 2007).

*Model 2:*

$$ROA_{i,t} = \beta_0 + \beta_1 CEO\_experience_i + \beta_2 Y2_i + \beta_3 Y3_i + \beta_4 Y2 * CEO\_experience_i + \beta_5 Y3 * CEO\_experience_i + \beta_6 Age_i + \beta_7 Education_i + \beta_8 Gender_i + \beta_9 Industry\_experience_i + \beta_{10} Duality_i + \beta_{11} Firm\_size_i + \beta_{12} Independency_i + \beta_{13} \text{ROA\_pre\_succession}_i + Industry\_fixed\_effects + Year\_fixed\_effects + \varepsilon$$

**4.2.2. Regression model for hypothesis 2:**

In our second hypothesis, the dependent variable (*prior CEO experience*) is a dummy variable taking the value 1 if the CEO has prior CEO experience and 0 otherwise. To investigate this hypothesis we use a method where we do a regression in two steps. First, we establish a regression that predicts the propensity to have CEO experience based on individual characteristics. We do this by regressing our dependent variable (*CEO experience*) on the control variables associated with the individual characteristics of the CEO *(Age, Education, Gender, Industry experience and Duality)*. The residuals from this regression act as a proxy for having CEO experience, as a higher residual value means that the person is more likely to have CEO experience. More specifically, observations that have prior CEO experience will have a positive residual value while observations without CEO experience will have a negative residual. We then regress the residuals obtained from the first regression on the firm control variables, including our variable of interest *(pre-succession firm performance)*. The sign of the coefficient for *pre-succession firm performance* will then indicate whether pre-succession firm performance is positively or negatively associated with the propensity to hire a CEO with prior CEO experience.

*Hypothesis 2:*

*First stage:*

$$Prior\_CEO\_experience_i = \beta_0 + \beta_1 Age_i + \beta_2 Education_i + \beta_3 Gender_i + \beta_4 Industry\_experience_i + \beta_5 Duality_i + \varepsilon$$

*Second stage:*

$$Residual\ (from\_first\_stage)_i = \beta_0 + \beta_1 \text{ROA\_pre\_succession}_i + \beta_2 Firm\_size_i + \beta_3 Independency_i + Industry\_fixed\_effects + Year\_fixed\_effects + \varepsilon$$

### 4.2.3. Dependent variables

*Return on assets (ROA):* Multiple measures have been used in prior research when looking at the impact that CEO characteristics have on firm performance (e.g., Kaplan et al., 2012; Richard et al., 2009; Hamori and Koyuncu, 2015; Limbach and Sonnenburg, 2015). Since we are looking at private firms we are restricted to use accounting measures rather than market based performance. Although it has been argued that the most objective performance measure is attained by using accounting data one must keep in mind that accounting measures have their drawbacks. Accounting measures are susceptible to accounting errors, earnings management and different accounting policies between industries (Richard et al., 2009).

ROA is a commonly used accounting measure for measuring profitability (Rosenbusch et al., 2011). It is also a widely used method for measuring SME performance (e.g., Rosenbusch et al., 2011; Wolff and Pett, 2006). ROA measures the capability of a firm's assets to generate profits, in essence the profitability of a company's operations. Because ROA is unaffected by a firm's debt policies, it is said to be a better measure of the fundamental value that a firm creates. Moreover, it has been argued that the only "*real*" way to measure a firm's performance is by measuring how effective it is at using its assets (Hagel, 2010). In our study, ROA is calculated by dividing each year's EBIE (earning before interest expense) by the opening balance of total assets.

### 4.2.4. Independent variables

*Prior CEO experience:* a dummy variable that takes the value 1 if the CEO has prior CEO experience and 0 otherwise. We would like to note that this variable is used as our dependent variable in our second hypothesis.

### 4.2.5. Control Variables

The control variables in our models are carefully selected in order to reduce the problem of omitted variable bias. We have included both control variables for different CEO characteristics and firm control variables.

**CEO control variables**

*Age:* the age of the CEO at the time of succession. Age is a good representation of a person's life experience. It is known to influence an individual's risk aversion behaviour as well as managerial style (Bertrand and Schoar, 2003). Verhaeghen and Salthouse (1997) found that as a person's age increases there is a decline in cognitive abilities. Studies have found that old age influences profitability negatively (e.g., Belenzon et al., 2019). Thus, we expect this coefficient to be negative when used as a control variable for our first hypothesis. When used as a control variable in our second hypothesis, we expect the coefficient to be positive as older individuals are more likely to have prior CEO experience.

*Education:* the number of years of education. We have divided a person's educational background into four categories and then translated these to numerical variables; MBA (18 years), MSc (17 years), BSc (15 years) and High School (12 years). A person's education arguably affects problem solving abilities, reasoning and behaviour. We expect this coefficient to be positive for both hypotheses.

*Gender:* a dummy variable that takes the value 1 if the CEO is a male and 0 if female. Gender has been found to affect managerial and leadership styles (e.g., Burke and Collins, 2001), and thus it could affect firm outcome. Khan and Vieito (2013) find indications that female CEOs are more risk averse than male CEOs. However, there is ambiguity about how the gender of the CEO will impact firm performance and thus we have no particular expectation of the sign for the coefficient in the models for our first hypothesis. When used in our second hypothesis we expect a positive sign as we believe that men are more likely to have prior CEO experience.

*Industry experience:* a dummy variable that takes the value 1 if the CEO has worked in the same industry prior to the succession event during his or her career, and 0 otherwise. Several studies have found that industry experience affects the performance in the current role. Custódio et al. (2013) found that "specialist" CEOs had better accounting returns than "generalist" CEOs. In contrast, Hamori and Koyuncu (2015), found partial evidence that exCEOs with prior industry experience perform worse than exCEOs without industry experience. Hence, despite the ambiguity, we expect this coefficient to be negative for hypothesis one. For hypothesis two we also expect the coefficient to be negative as we argue that industry experience could be a way to compensate for not having prior CEO experience, thus being more common among non-exCEOs.

*Duality:* a dummy variable that takes the value 1 if the CEO is also chairman of the board and 0 otherwise. Contrary to listed companies, CEO duality is legally allowed in private firms in Sweden (Bolagsverket, 2020). Looking through the perspective of agency theory, CEO duality can lead to entrenchment effects since the CEO (*agent*) also has the monitoring role as chairman of the board (*principal*). This increases the risk of self-serving behaviour (Arosa et al, 2013). However, research has also shown that duality leads to less information gaps and conflicts between the board and the CEO. Boyd (1995) finds that CEO duality positively affects firm performance when a firm is suffering from resource scarcity and complex situations. Hence, while it probably has an impact on performance, it is difficult to anticipate whether this coefficient will be positive or negative for our first hypothesis. For our second hypothesis we expect a positive coefficient since we argue that the positive perception of CEO experience will make boards less frightful of giving the CEO full reign of both the chairman position and the CEO position.

**Firm control variables**

*Firm size:* in line with Hamori and Koyuncu (2015**)** we measure firm size as the natural logarithm of total sales. Firm size is likely to correlate with firm performance. Larger firms often have the advantage of better control systems, safer revenue streams (for example not having to rely on one single customer) and larger economies of scale. On the other hand, larger companies suffer from more organizational inertia and are less flexible (Hambrick and Finkelstein, 1990). However, studies suggest that firm size is positively related to profitability amongst SMEs (e.g., Yazdanfar and Öhman, 2015; Aragón-Sánchez and Sánchez-Marín, 2005). Thus, we expect this coefficient to be positive for our first hypothesis. For our second hypothesis we expect that this variable will be positive as well, as exCEOs may be perceived more merited than others and thus better capable of handling larger firms.

*Pre-succession firm performance:* three-year average ROA for the hiring firm before the succession event. This variable is of particular importance since pre-succession performance differences, that are not caught by other control variables, will most likely predict post-succession performance to a large extent (Glebbeek and Bax, 2004). Furthermore, by including this variable we also control for the potential issue of "regression-to-the-mean" effect (Hamori and Koyuncu, 2015; Karaevli, 2007). The regression-to-the-mean effect is a phenomenon where extreme variations are followed by observations closer to the mean. The issue with this effect is that natural variations can be misconstrued as real changes. It is important to account for this since there can otherwise be ambiguity about whether the CEO

actually contributed to performance changes or whether it was a consequence of the regression-to-the-mean effect. We expect this coefficient to be positive for our first hypothesis. For our second hypothesis this variable becomes our independent variable.

*Independency:* a dummy variable which takes the value 1 if the firm is an independent entity and 0 if it is a dependent entity. Dependent entities are defined as companies that are owned by either a parent company, holding group or any other organization that may assert influence. All others are defined as independent. This variable is used to control for the issue that dependent companies can sometimes have their profits moved around, which could increase the likelihood of them displaying worse performance than independent companies. For this reason we suspect a negative coefficient for our first hypothesis. For our second hypothesis there is ambiguity whether independent firms will be more or less likely to hire exCEOs and therefore we have no expectation for the sign of the coefficient.

*Fixed effects:* in all our models we control for industry and year fixed effects. Controlling for these effects ensures that the results we find are not due to variations across industries or trends across time, but rather stem from the specific CEO characteristic we are testing for. In essence, it will increase the accuracy of our model and make sure that the desired effects are captured.

# 5. Results

In this section, we begin with an explanation of our descriptive statistics and the important implications they bring. Secondly, we explain and summarize the results from the Pearson correlation tables. Thereafter, we explain and interpret the results from the various regressions used to examine our two hypotheses. Lastly, we present our robustness tests.

## 5.1. Descriptive statistics

Table 2 presents the descriptive statistics for the variables included in our regression models. The number of observations differs between the different models since model 2 includes all firm-year observations while model 1 builds on the average values for the dependent variable. Hence, in model 1, we have one observation per CEO succession compared to three in model 2. Furthermore, we observe a small difference in the mean values of the variables in model 1 and model 2. The source of this discrepancy is the removal of different outliers in the two

models. We apply the Cook's distance method separately for the two models, and thus different outlier observations are excluded in the two models.

Furthermore, we observe that our dependent variable (ROA) has a large deviation between the highest and lowest value. On the other hand, the median and mean values are closely related, meaning that the majority of the observations are within a reasonable boundary. The same argument could be made for *ROA pre-succession*.

We also observe a positive difference between the average post-succession firm performance and average pre-succession firm performance. While an interpretation could be that successions in general improve firm performance, a more likely explanation is that the general economic environment has improved over time during the observed years in our sample. As seen in appendix 1, most of our sample is skewed towards observations in more recent years. During these years the general economy has been doing well, resulting in improved performance over time. Since the number of observations from the years of the financial crisis are very few, the results from the regressions are primarily applicable for CEO successions that take place in a favorable economic environment.

*Table 2: Descriptive statistics*

| **Model 1** | Observations | Mean | Median | SD | **Model 2** | Observations | Mean | Median | SD |
|---|---|---|---|---|---|---|---|---|---|
| ROA average | 144 | 10,56% | 8,37% | 13,46% | ROA average | 436 | 9,36% | 8,23% | 14,18% |
| CEO experience | 144 | 0,44 | 0 | 0,50 | CEO experience | 436 | 0,45 | 0 | 0,50 |
| Age | 144 | 53,38 | 54 | 6,02 | Age | 436 | 53,52 | 54 | 5,99 |
| Education | 144 | 15,78 | 17 | 1,71 | Education | 436 | 15,81 | 17 | 1,71 |
| Gender | 144 | 0,85 | 1 | 0,35 | Gender | 436 | 0,86 | 1 | 0,34 |
| Industry experience | 144 | 0,81 | 1 | 0,40 | Industry experience | 436 | 0,81 | 1 | 0,40 |
| Duality | 144 | 0,02 | 0 | 0,14 | Duality | 436 | 0,03 | 0 | 0,16 |
| Firmsize | 144 | 12,04 | 12,09 | 0,64 | Firmsize | 436 | 12,09 | 12,10 | 0,65 |
| Independency | 144 | 0,26 | 0 | 0,44 | Independency | 436 | 0,25 | 0 | 0,43 |
| ROA pre succession | 144 | 8,36% | 7,52% | 18,31% | ROA pre succession | 436 | 7,77% | 6,90% | 18,08% |

Table 3 presents the distribution of observations across industries and the average ROA in the different industries. We can see that the observations are not equally distributed across the different industries and that our sample is biased towards observations in the *Manufacturing, Industrials and Energy*, and the *Retail and Wholesale* industries. Furthermore, while the distribution of exCEOs and non-exCEOs are quite equal in general, the discrepancy is large in certain industries. For example, the *Media, IT and Telecommunication* industry has a high exCEO to non-exCEO ratio and is also the industry with the highest average return on assets. These biases in our sample should be kept in mind when interpreting the results of our study.

*Table 3: Industry average ROA and CEO distribution*

| Industry classifictions | ROA Post succession (mean) | ROA Pre succession (mean) | ExCEOs | Non-ExCEOs | Observations |
|---|---|---|---|---|---|
| Corporate services | 8,66% | 7,08% | 7 | 9 | 16 |
| Manufacturing, Industrials and Energy | 11,94% | 7,22% | 21 | 24 | 45 |
| Media, IT and Telecomunication | 19,10% | 12,61% | 9 | 2 | 11 |
| Other services | 9,95% | 9,72% | 5 | 7 | 12 |
| Real-estate | 12,90% | 12,11% | 8 | 10 | 18 |
| Retail and Wholesale | 6,90% | 6,95% | 11 | 24 | 35 |
| Transportation | 5,91% | 7,10% | 3 | 4 | 7 |
| Total | 10,56% | 8,36% | 64 | 80 | 144 |

## 5.2. Pearson correlation

In Appendix 2, we present Pearson correlations between the variables in our models. CEO experience and age are positively correlated, which is expected since an older individual will have a higher chance of gaining enough experience and opportunities to become a CEO. As expected, ROA post-succession and ROA pre-succession are positively correlated at the 5% significance level. Inheriting a better-performing company will give the succeeding CEO a better chance of achieving higher post-succession ROA. Surprisingly, there is no significant correlation between CEO experience and ROA, suggesting that we cannot reject our null hypotheses. However, we need more empirical evidence before such conclusions can be drawn.

## 5.3. Regression results

### 5.3.1. Regression results for H1

Our first hypothesis investigates how prior CEO experience affects post-succession firm performance. The regression result from the two models used to examine this relationship is presented in table 4.

In model 1 the estimated coefficient for *CEO experience* is slightly negative, however, not statistically significant. Hence, this model suggests that we cannot reject the null hypothesis. Unsurprisingly, the control variable *pre-succession ROA* has the highest explanatory power and the lowest p-value. The coefficient for *Gender* is almost significant at the 10% significance level (p-value =0,103). However, given the relatively small number of women in our sample, we refrain from drawing any conclusion about the gender effect based on this result. The coefficients for the other control variables have low t-values and thus no meaningful interpretation can be made.

In the second model, the variable *CEO experience* is interpreted as the effect of appointing an exCEO compared to appointing a non-exCEO *in the first year* following the succession. The interaction variable *Y2#CEOexperience* is interpreted as the incremental effect of CEO

experience *in the second year* following the succession. By the same logic, the interaction variable *Y3#CEOexperience* is interpreted as the incremental effect of CEO experience *in the third year* following the succession. The variables Y2 and Y3 are interpreted as the firm performance in year 2 and year 3 compared to the first year when the CEO has no prior CEO experience.

Interestingly, the results from model 2 indicates that the effect of CEO experience differs across the years following the succession. The coefficient for *CEO experience* is negative while the coefficient for *Y2#CEOexperience* and *Y3#CEOexperience* is positive. This indicates that CEO experience has an immediate negative effect on firm performance but that this effect then reverses. However, only the result for the first year is significant at the 10% significance level. As for the first model, *pre-succession ROA* has the highest explanatory power and is the only control variable that is significant at the 10% significance level. While the results from this model indicate that the relationship between CEO experience and post-succession firm performance varies over the years after the succession, it does not give any clear indication of the overall effect of CEO experience. This, combined with the fact that model 1 does not show any significant relationship, makes us conclude that we cannot reject the null hypothesis.

Regarding the explanatory power of our models we can see that model 1 has an adjusted R-squared value of 0,559 and model 2 two has a R-squared value of 0,515. This is higher than previous research (e.g., Hamori and Koyuncu, 2015). However, while a high R^2 indicates that the models have high explanatory power, it has relatively low relevance in our study as we do not aim to fully predict the firm performance of companies.

*Table 4: Regression H1*

| **Model 1** | Coefficient | t-value | **Model 2** | Coefficient | t-value |
|---|---|---|---|---|---|
| ROA average | | | ROA yearly | | |
| CEO experience | -0,004 | (0,22) | | | |
| | | | CEO experience | -0,030* | (1,84) |
| | | | Y2 | 0,005 | (0,49) |
| | | | Y3 | 0,005 | (0,37) |
| | | | Y2#CEO experience | 0,005 | (0,30) |
| | | | Y3#CEO experience | 0,027 | (1,39) |
| Age | -0,001 | (0,78) | Age | -0,001 | (0,60) |
| Education | -0,003 | (0,60) | Education | -0,002 | (0,64) |
| Gender | 0,038 | (1,64) | Gender | 0,024 | (1,06) |
| Industry experience | -0,023 | (1,11) | Industry experience | -0,020 | (1,13) |
| Duality | -0,006 | (0,11) | Duality | -0,044 | (1,58) |
| Firmsize | 0,002 | (0,11) | Firmsize | 0,005 | (0,36) |
| Independency | 0,008 | (0,44) | Independency | -0,001 | (0,05) |
| ROA pre succession | 0,542*** | (12,15) | ROA pre succession | 0,533*** | (12,95) |
| Year fixed effects | Yes | | Year fixed effects | Yes | |
| Industry fixed effects | Yes | | Industry fixed effects | Yes | |
| Clustered on firm level | No | | Clustered on firm level | Yes | |
| R-squared | 0,633 | | R-squared | 0,515 | |
| Adjusted R-squared | 0,559 | | | | |
| Observations | 144 | | Observations | 436 | |
| Constant | 0,015 | (0,07) | Constant | 0,022 | (0,12) |

*Note: * p<0,10; ** p<0,05; *** p<0,01*

### 5.3.2. Regression results for H2

Our second hypothesis investigates whether the pre-succession firm performance impacts the propensity to hire experienced CEOs. The results from the two-step regression used to test this hypothesis are presented in table 5.

The coefficient for *ROA pre-succession* is negative which is in line with what we expected and could indicate that exCEOs are in fact hired by worse performing firms than non-exCEOs. However, the coefficient is not statistically significant and thus we cannot draw such conclusions. Instead, we conclude that we find no support for our hypothesis that exCEOs inherit worse performing firms than non-exCEOs. Unsurprisingly, the *Age* variable is positive at the 1% significance level. The interpretation of this is that older individuals are more likely to have CEO experience which is entirely in line with expectations. We can also see that both *Years of education* and *Gender* have a positive coefficient which is expected. However, they are not significant at the 10% significance level.

*Table 5: Regression H2*

| **First stage** | Coefficient | t-value | **Second stage** | Coefficient | t-value |
|---|---|---|---|---|---|
| CEO experience | | | Residual from first stage | | |
| | | | ROA pre succession | -0,090 | (0,39) |
| | | | Firmsize | -0,075 | (0,98) |
| | | | Independency | 0,106 | (1,14) |
| Age | 0,019*** | (2,69) | | | |
| Education | 0,015 | (0,63) | | | |
| Gender | 0,112 | (0,96) | | | |
| Industry experience | 0,070 | (0,67) | | | |
| Duality | -0,266 | (0,92) | | | |
| Year fixed effects | No | | Year fixed effects | Yes | |
| Industry fixed effects | No | | Industry fixed effects | Yes | |
| Observations | 144 | | Observations | 144 | |
| R-squared | 0,085 | | R-squared | 0,162 | |
| Adjusted R-squared | 0,052 | | Adjusted R-squared | 0,041 | |
| Constant | -1,059 | (1,84) | Constant | 0,833 | (0,86) |

*Note: * p<0,10; ** p<0,05; *** p<0,01*

## 5.4. Robustness tests

Before we draw any specific conclusions based on our findings, we perform various robustness tests in order to confirm and validate the results.

### 5.4.1. Heteroscedasticity and multicollinearity

Multicollinearity is an issue that arises when two or more independent variables are highly correlated. When independent variables are correlated it is difficult to draw any conclusions from the regression results as it is not entirely distinguishable which variable contributes to what effect. This does not immediately make the model invalid but certainly makes it more difficult to interpret and lowers the validity (Farrar and Glauber, 1967). We investigate multicollinearity by running a VIF-test (Variance Inflation Factor). The VIF factor is considerably lower than the commonly used threshold value of 4 (O'Brien, 2007) for all of our variables, in all our models. Accordingly, none of our models suffer from multicollinearity. The result of the VIF test is outlined in Appendix 3.

One of the assumptions of the OLS regression is homoscedasticity, i.e. that the variance of the error terms is constant. If the variance of the error terms is inconsistent and varying, it leads to biased variances of the estimated coefficients. This would make the regression results rendered invalid, and if not realized increase the possibility for type 1 errors (Rosopa et al., 2013). We test for heteroscedasticity in our OLS regression models by using the Whites-T

test (White, 1980). The test fails to reject the null hypothesis of the model exhibiting homoscedasticity at the 10% significance level for all our models. This indicates that our models do not suffer from heteroskedasticity. Furthermore, we plot the fitted values against the residuals and this shows no strong indications of heteroskedasticity. However, the test for heteroskedasticity for Model 2 is almost significant at the 10% level (p-value = 0,1073). As such, we do not feel comfortable concluding that this model does not exhibit heteroskedasticity. Therefore, as previously mentioned, we use robust estimation methods, clustering on firm-level in this model. The results from our tests for heteroskedasticity are presented in Appendix 4.

### 5.4.2. Two-stage least squares regression

In order to control for potential endogeneity issues concerning our independent variable (*CEO experience*) in the models for the first hypothesis we conduct two-stage least squared (2SLS) regressions for the respective models. The results of the 2SLS are found in Appendix 5. In line with Hamori and Koyuncu (2015), we use a variable that denotes the number of different companies a CEO has worked for prior to joining the current company as our instrumental variable. The first-stage F-statistic of the 2-SLS regressions has a value of 14,3 which exceeds the threshold value proposed by Stock and Yogo (2005). Therefore, we conclude that the instrumental variable is strong. In line with the results from the OLS regressions, the 2SLS regressions show no significant relationship between CEO experience and firm performance.

In the 2SLS corresponding to our first model, the estimated coefficient for the independent variable (*CEO experience*) is slightly positive, compared to slightly negative in the OLS model. This could indicate that there are omitted variables in our OLS regression model that are negatively associated with firm performance, and thus a problem with endogeneity. However, the coefficient estimate from the 2SLS is not statistically significant and lies within the confidence interval for the coefficient estimate from the OLS regression. The results from the 2SLS regression corresponding to our second model deviate more from the OLS regression results. The 2SLS for this model does not replicate the results that the effect of CEO experience varies over the years following the succession. The sign of the coefficients for our variables of interest are different from those in the OLS regression model and all coefficient estimates are now non-significant. The deviations in the results between the 2SLS regressions and the OLS regressions means that the results from our study should be

interpreted with caution. Nevertheless, the results from the 2SLS regressions do not invalidate the main conclusion of our findings, namely that we fail to reject the null hypothesis.

### 5.4.3. Alternative performance measures

Even though various performance indicators tend to correlate over time, different measures capture different components of firm performance. SMEs tend to focus on either profitability or market performance, but rarely on both simultaneously (Westerberg et al,1997). Moreover, Wolff and Pett (2006) suggests that market performance can sometimes be achieved at the expense of profitability. Complementing the profitability performance measure with a market performance indicator can therefore give a more extensive view of performance in SMEs. As a robustness test, we therefore run the regressions for the first hypothesis using *growth in sales (GIS)* as our dependent variable. Rosenbusch et al. (2011) finds GIS to be the most commonly used market-based performance indicator when studying SMEs. We measure growth in sales as the current year's net revenue divided by last year's net revenue.

Our regressions using GIS as the dependent variable show similar results as the regressions using ROA. However, there are differences in terms of the statistical significance for the coefficients. In model 1 the t-value is higher for the coefficient for CEO experience, however, still not significant. For model 2, the coefficient for *CEO experience* is no longer significant at the 10% level. Hence, this robustness test further confirms that we cannot reject our null hypothesis for H1. The insignificance in the results for model two also means that we should be cautious about drawing conclusions about how the effect of CEO experience varies over the years following the succession.

### 5.4.4. Data robustness

To ensure that our industry classifications accurately capture variations across industries, we run our original regression models two more times using two other industry classifications as the basis for industry fixed effects. One is the industry classifications designated by the Retriever Business database and the other is industry classifications that we make ourselves, this time being more detailed. The two different classifications have 12 and 10 categories respectively. Shifting between these two industry classifications gives almost identical results as in our original models, and thus we conclude that our usage of industry classifications is robust in capturing the industry fixed effects.

Lastly, we exclude certain ambiguous observations from our sample to control for potential errors stemming from the manual data collection. The data collection on the backgrounds of the CEOs sometimes requires interpretations of whether, for example, a prior job counts as CEO experience. For 14 CEO succession observations (8 ExCEOs and 6 Non-ExCEOs), there is some ambiguity to whether the right classification has been made and in order to ensure that these observations are not driving the results we also run the regression excluding these from our sample. Despite the removal of these we still attain similar results which adds to the robustness of our results.

#### 5.4.5. The impact of outliers

We run all our regressions including the outliers that are removed from our main regressions. For the models for hypothesis 1, the results are similar when including outliers. However, the significance level increases for the coefficients for our independent variable. In model 1, the results are still not significant at the 10% significance level but in model 2, the CEO experience effect is significant at 10% for both year one and year three following the succession. While this could strengthen our results, it also shows that outliers in our sample are largely driving the results, and thus, that it is important to adjust for them. For hypothesis 2, the t-values are also higher for our independent variable, however, still non-significant.

## 6. Discussion

In this section, we discuss and analyze our findings. We begin with addressing our first hypothesis. We relate our findings to the current literature and empirical evidence on the relationship between CEO experience and firm performance. We take the same approach to discussing and analyzing the results to our second hypothesis.

### 6.1. Analysis of results for Hypothesis 1

Based on the aforementioned theories and empirical evidence of the relationship between CEO experience and firm performance, our research question investigates this relationship in Swedish SMEs.

Based on model 1, which is most similar to the model used by Hamori and Koyuncu (2015), our results show a slightly negative but non-significant relationship between prior CEO experience and post-succession firm performance. Hence, it suggests that we cannot reject the

null hypothesis. This result differs from the results in the study by Hamori and Koyuncu (2015), who found a significant negative relationship between CEO experience and post-succession firm performance when examining large US firms..

The results from our second model complement the insights from the first model and indicate that CEO experience has a negative impact in the first year after the succession but that this effect then reverses. However, these results could not be replicated in the 2SLS or when changing the performance measure which means that they should be interpreted with caution. Nevertheless, the results could potentially be explained by the concept of big bath accounting. This is an occurrence where managers use accruals to move profits between years and it is argued to be especially pronounced the year immediately following the succession (Wells, 2002). Since any bad performance in the immediate year following the succession can be attributed to the predecessor, managers might be tempted to make the earnings look even worse than they actually are in order to artificially inflate future earnings that they can then take credit for. It could be that experienced CEOs are more prone than first-time CEOs to take these types of measures. Anterasian et al. (2020) argue that exCEOs often act according to a playbook that includes prioritizing cutting costs and identifying quick wins. This could indicate that they are more likely to also engage in different forms of earnings management. Even though the effect of CEO experience seems to vary over time after the succession, the results from model 2 give no clear indications of the overall impact of CEO experience. Thus, the combined results from our two models make us conclude that we cannot reject our null hypothesis, which states that there is no relationship between CEO experience and firm performance.

In general, the robustness tests support the conclusion that we do not find any significant relationship between CEO experience and firm performance. Whether we change the performance measure, include outliers or conduct 2SLS regressions, we still obtain insignificant results. However, the results from the 2SLS regressions differ slightly from the results from our main regression models, especially for the second model. There could be two reasons for this. It could either be that the instrumental variable used in our 2SLS regressions is not a good instrument and is potentially correlated with our dependent variable. It could also be that there are omitted variables in our main regression models that are negatively correlated with our dependent variable and that these models accordingly suffer from endogeneity. Either way, this discrepancy means that the findings that the CEO effect varies

over the years after the succession are not robust. Thus, we conclude that we cannot draw any certain conclusions about how CEO experience impacts firm performance in the specific years following the succession event.

While the combined results from both the main regressions and the robustness tests could indicate a very small or non-existent relationship between CEO experience and firm performance in Swedish SMEs, we remain cautious about accepting the null hypothesis. First of all, the sample size of this study is small which could be a potential factor explaining the non-significance in our results (Biau et al., 2008). It could be argued that a small sample is an even larger limitation when conducting studies on SMEs since the variance in performance for small firms can be assumed to be larger than that of large corporations. Secondly, from the descriptive statistics, we can also see that our sample is biased towards certain industries and that the distribution between exCEOs and non-exCEOs is uneven in some industries. The ratio between exCEOs and non-exCEOs is the highest in the *Media, IT and Telecommunication* sector which is also the sector that saw the largest average increase in performance from before to after the succession. Even though we have accounted for industry trends and pre-succession firm performance in our regression models, there is still a risk that the skewness in the sample could partly be driving the results. Also, our second model indicates that the effect of CEO experience might differ over the years following the succession. This makes it difficult to analyze the overall effect the CEO experience has in total over the period. Nevertheless, based on existing literature, there are factors that could explain the seemingly non-existent relationship between CEO experience and firm performance in Swedish SMEs and why the relationship might be different in SMEs compared to large firms. These will be presented below.

The organizational size of the companies in our study might be a key factor explaining why we do not find the same negative relationship as previous studies. Existing literature suggests that the CEO role is very different in small firms compared to large ones. In smaller firms, the CEO is, for example, much more involved in the everyday operations and relies less on supportive structures. This means that decisions are more often taken on an ad-hoc basis and are based on the mental capabilities of the CEO. Such an environment could shift the relative importance from making good long-term strategic decisions to being able to take fast and intuitive decisions in a complex environment. Matzler et al. (2007) argued that experience from making decisions in such an environment increases the capability of handling those situations. This could mean that prior CEO experience brings positive aspects in SMEs that is

not seen to the same extent in larger firms. We argue that this could compensate for other negative effects, such as "knowledge corridors", which is argued to partly explain the negative relationship found in previous studies.

Another factor potentially explaining why our results differ from previous studies is cultural differences between the countries that the studies focus on. Crossland and Hambrick (2011) found that there is a difference in the impact that the CEO has across the two countries. The CEO impact is generally lower in Sweden compared to the United States, and based on this, it is not surprising to find less significant results when studying Swedish firms.

The fact that we do not find a positive relationship between prior CEO experience and firm performance could be an indication that CEOs in SMEs also suffer from the negative aspect of prior experience such as career imprints and cognitive mechanisms, that inhibits the ability to see new perspectives and recognize new information. This may neutralize the previously discussed positive effects that CEO experience brings in SMEs. However, one interpretation could also be that the job-specific experience is not transferable and therefore have no positive effect in the new job. From this perspective, our results do not support the theories that suggest that job-specific experience brings positive effects in a new environment. Relating to the human capital theory it could also be that the CEO position in SMEs require a large portion of firm-specific managerial capital since the CEO is very involved in the operations and everyday processes (Lubatkin et al., 2006). This puts more emphasis on learning the specific processes of a firm, and therefore, general amangerial capital might not be as important as in larger firms. Thus, managerial capital in SMEs might not be easily transferred across organizations.

We would also like to highlight the importance of the variable *Pre-succession performance*. This variable had the most significant explanatory value for post-succession firm performance in both model 1 and 2. None of the other variables were found to have any significant impact on the performance of the firm, including our variable of interest. This could be interpreted as strong evidence in favour of the literature that suggests managers and CEOs have, on average, very limited impact on firm performance. Pfeffer (1981) argued that CEOs act more as symbols rather than engaging in substantive actions. Nienhüser (2008) and other theorists argue that situational factors are more impactful on firm performance than the actions of the top management. Although some existing literature suggest that CEOs have a larger influence in smaller firms, the same could also be true for situational factors such as

industry trends and the general economic environment. For example, smaller firms have less control over their external environment and are expected to be less resilient to an economic downturn than larger firms (Lai et al., 2016). It could be the case that the higher CEO impact is outweighed by the greater influence from environmental factors surrounding SMEs. Thus CEO characteristics may exhibit less influence in smaller organizations compared to larger organisations.

### 6.2. Analysis of results for Hypothesis 2

In terms of our second hypothesis, the coefficient for our independent variable *(ROA pre-succession)* is non-significant. Hence, we find no support for the hypothesis that experienced CEOs inherit worse-performing firms than first-time CEOs. This result is contrary to the findings from Elsaid et al. (2011) who found that exCEOs inherit worse performing firms. However, it is in line with Hamori and Koyuncu (2015) who also did not find any indications that worse performing firms hire exCEOs to a larger extent. Based on the prior literature, we would have expected a negative relationship, as would have thought that bad performing firms would employ experienced CEOs to a larger extent as they are perceived as a safer bet (Anterasian et al., 2020).

Our result could be interpreted in the way that pre-succession performance differences are not an explanatory factor to the results in hypothesis one. While this is our main interpretation due to the insignificance of the coefficient we do, however, want to elaborate on the fact that the coefficient is negative. The negative coefficient could indicate that the pre-succession performance for firms that hire exCEOs is lower. This could in turn potentially mean that pre-succession performance differences influence the relationship between CEO experience and firm performance in hypothesis one. If it is true that exCEOs inherit worse performing firms, but still perform on par post-succession, it could mean that the net effect of CEO experience is more positive than our results from the first hypothesis shows. Although this should be borne in mind, the non-significance of these results makes us refrain from drawing such conclusions.

## 7. Conclusion

This study investigates how appointing a CEO with prior experience from the CEO position affects post-succession firm performance in Swedish SMEs, compared to appointing a first-time CEO. To the best of our knowledge, no prior study has investigated this relationship

in SMEs or in a non-US setting. We formulate a null hypothesis stating that prior CEO experience will not impact firm performance and test whether this can be rejected. We also hypothesize that CEO experience would impact the hiring decision, specifically that worse performing firms would hire CEOs with prior CEO experience to a larger extent. We examine this relationship by running ordinary least squares regressions on a sample of 154 CEO succession events in Swedish SMEs between 2007-2017. Using both similar and different methods from prior studies, our research offers interesting perspectives on the performance of experienced CEOs and first-time CEOs in small firms.

Our research contributes to the existing literature in several ways. Firstly, it is the first study to investigate the impact of CEO experience in SMEs. Understanding the impact of various CEO characteristics on firm performance in these firms is important for multiple stakeholders, including but not limited to board of directors, investors and hiring committees. CEO successions are associated with large risks, and selecting the wrong candidate can have major implications both in the short and the long term. Furthermore, in a wider context, the study also offers important insights into studies on SMEs in general. Research on SMEs continues to be limited, which we suspect is mainly due to the difficulty in obtaining data on these firms. Some previous research has indicated that the generalizability of findings in large organizations does not necessarily hold for smaller organizations, which the results of our study support. As such, our study highlights the importance of future research focusing on SMEs.

Contrary to previous studies on large US firms, our study finds no empirical evidence for any relationship between prior CEO experience and firm performance in Swedish SMEs. Neither do we find any support for the hypothesis that bad performing firms hire exCEOs to a larger extent. We find indications that the effect of CEO experience has an immediate negative effect that then reverses over time after the succession, however, given the small sample size and the fact that our robustness test did not confirm these results, we advise that these results are interpreted with caution. Even though our results could indicate non-existent relationship between CEO experience and firm performance in Swedish SMEs, which would not be surprising based on existing literature, we do not consider our empirics strong enough to draw such conclusions with certainty. Future studies will have to further investigate this in order to see if the results can be confirmed. Instead, we argue that our study serves as a first indication on the relationship between CEO experience and firm performance in small companies and could provide inspiration for further research in this area.

## 8. Limitations

We will now present and disclose the identified limitations of our study. First, a significant limitation of our study is our limited sample size, which is considerably smaller than that of many other studies in similar areas. The reason for the limited sample size stems from difficulties in the data collection. Not only is collecting data on SMEs challenging in general, but the majority of the data in our study had to be collected manually. The small sample size could potentially explain the insignificance in our results (Biau et al., 2008), and also increase the risk that our sample is not representative of the general population.

Moreover, our method of data collection may cause biases in our sample. As previously described, we had to screen for companies that fulfill certain criterias as of today and then manually identify the latest succession event. This means that some CEO successions in companies that were SMEs at the time of the latest succession but no longer are will not be captured in our sample. This increases the risk of arriving at a sample that is not representable for the entire population. We have taken measures to mitigate this effect by identifying firms that have between 500 million SEK and 1 billion SEK in revenues or between 250 and 500 employees today, but were SMEs at the time of the latest CEO succession in the company. However, many firms are still left out of the sample. Furthermore, since we choose to only look at CEO successions that took place before 2017, we run the risk of excluding firms that change their CEO more frequently. If a high frequency in changing the CEO is correlated with our firm performance or the propensity to hire experienced CEOs, our result could be biased.

Information on SMEs and the CEOs in these firms is limited and difficult to attain. One issue that presents itself is that, in some cases, different sources contain different information. In these cases we used the most legitimate source first, which are as follows; (1) a trusted third party website, (2) the company website (3) the linkedin profile of the CEO in question. Furthermore, collecting data from a source such as Linkedin is not optimal since the information cannot be guaranteed to be trustworthy or accurate at giving a complete picture of a person's background. Linkedin profiles are also subject to change which means that the information we have in our study may be different for another study.

We would also like to recognize that certain information from the sources had to be interpreted by us, as the information was not always clear. For example, the title Managing

Director is often used interchangeably with Chief Executive Officer, despite the two positions being inherently different. This required us to investigate whether the MD position mentioned in a Linkedin profile was in fact a CEO position.

Lastly, we want to address the generalizability of our research. Our study only examines a three-year period and can therefore not state anything in regards to what happens over a more extended time period. Additionally, our sample mostly contains observations from more recent years, during which the general economic environment has been favorable. The results in our study could be different in times of economic crisis. Moreover, since our study is based on Swedish firms, generalizing our results to other countries should be made with caution since the results can be specific to a Swedish context. Also, we only investigate external CEO successions which means that we cannot explicitly draw conclusions about the effect of prior CEO experience in internal successions.

However, despite these limitations, we argue that our study contributes to the existing literature in interesting ways. Being the first study on SMEs within our specific topic, it provides a first glimpse of how different factors might affect firm performance in SMEs and how these potentially differ from the effects seen in larger firms.

## 9. Direction for future studies

During the writing of this thesis we observed multiple interesting aspects outside the scope of our study that we consider to be warranted for more comprehensive research.

Firstly, we recommend that future studies investigate impacts other than firm performance that prior CEO experience has on firms. For example, it would be interesting to understand whether having an experienced CEO impacts the earnings management practices of the company. As previously touched upon, big bath accounting could be a good starting point. Moreover, future studies have yet to look at the strategic change of a company. Ultimately, we advise future studies to incorporate a more holistic view of the CEO impact rather than strictly studying firm performance.

Secondly, we also advise future studies to investigate whether CEO experience impacts firm performance during crisis periods. In this study, the sample is skewed towards successions that have taken place in a more favourable economic environment, which makes our results

non-representative for more challenging times. Since a common view is that experienced CEOs are a safer bet, it would be interesting to see how they perform during periods of economic crisis. Crisis periods are arguably the most challenging period in a CEO's tenure and the time when he or she experiences the highest job demand. Based on the current literature, this would arguably be the period that we would see the most prominent effect of experience.

Our second model indicates that the effect of CEO experience reverses over time following the succession, and therefore, it would be interesting to see what happens after the three years that is the focus of our study. It could be the case that exCEOs implement strategies that take time to achieve results, or vice versa. By incorporating a longer time horizon, one could get a more comprehensive picture of the effect that CEO experience has on firm performance.

Lastly, we also recommend qualitative studies to be made in this field. So far, all studies on the subject have been made in a quantitative format, only examining whether CEO experience has an impact on firm performance or not. A qualitative study could allow for more informed conclusions regarding the underlying reasons for the eventual performance differences between experienced CEOs and first-time CEOs.

# Appendix

**Appendix 1:** *Descriptive statistics: Observation years*

| **Model 1** | | | | **Model 2** | | | |
|---|---|---|---|---|---|---|---|
| Succession year | Freq | %Percent | Cum | Year observation | Freq | %Percent | Cum |
| 2008 | 2 | 1,39 | 1,39 | 2008 | 2 | 0,46 | 0,46 |
| 2009 | 3 | 2,08 | 3,47 | 2009 | 4 | 0,92 | 1,38 |
| 2010 | 2 | 1,39 | 4,86 | 2010 | 9 | 2,06 | 3,44 |
| 2011 | 7 | 4,86 | 9,72 | 2011 | 12 | 2,75 | 6,19 |
| 2012 | 13 | 9,03 | 18,75 | 2012 | 24 | 5,5 | 11,7 |
| 2013 | 9 | 6,25 | 25 | 2013 | 29 | 6,65 | 18,35 |
| 2014 | 18 | 12,5 | 37,5 | 2014 | 41 | 9,4 | 27,75 |
| 2015 | 21 | 14,58 | 52,08 | 2015 | 50 | 11,47 | 39,22 |
| 2016 | 34 | 23,61 | 75,69 | 2016 | 75 | 17,2 | 56,42 |
| 2017 | 35 | 24,31 | 100 | 2017 | 87 | 19,95 | 76,38 |
| | | | | 2018 | 67 | 15,37 | 91,74 |
| | | | | 2019 | 36 | 8,26 | 100 |
| **Total** | **144** | **100** | | **Total** | **436** | **100** | |

**Appendix 2:** *Pearson correlation*

**Pearson correlation**

| | ROA average | CEO experience | Age | Education | Gender | Industry experience | Duality | Firmsize | Independency | ROA pre succession |
|---|---|---|---|---|---|---|---|---|---|---|
| **ROA average** | 1,000 | | | | | | | | | |
| **CEO experience** | 0,022 | 1,000 | | | | | | | | |
| **Age** | -0,014 | 0,254** | 1,000 | | | | | | | |
| **Education** | 0,018 | 0,035 | -0,096 | 1,000 | | | | | | |
| **Gender** | 0,092 | 0,132 | 0,167** | 0,004 | 1,000 | | | | | |
| **Industry experience** | -0,077 | 0,086 | 0,054 | 0,059 | 0,145* | 1,000 | | | | |
| **Duality** | 0,007 | -0,131 | -0,195** | -0,010 | -0,078 | -0,051 | 1,000 | | | |
| **Firmsize** | -0,117 | -0,167 | 0,011 | 0,027 | 0,046 | 0,028 | 0,099 | 1,000 | | |
| **Independency** | -0,121 | 0,082 | -0,016 | 0,095 | -0,117 | 0,008 | -0,086 | -0,047 | 1,000 | |
| **ROA pre successsion** | 0,718** | -0,008 | -0,011 | 0,038 | 0,011 | -0,085 | 0,041 | -0,057 | -0,147* | 1,000 |

*Note: * p<0,10; ** p<0,05*

**Appendix 3:** *Multicollinearity*

Hypothesis 1

| **Model 1** | | | **Model 2** | | |
|---|---|---|---|---|---|
| Variable | VIF | 1/VIF | Variable | VIF | 1/VIF |
| CEO experience | 1,31 | 0,76 | CEO experience | 3,30 | 0,30 |
| | | | Y2 | 2,59 | 0,39 |
| | | | Y3 | 2,80 | 0,36 |
| | | | Y2#CEO experience | 3,21 | 0,31 |
| | | | Y3#CEO experience | 3,23 | 0,31 |
| Age | 1,28 | 0,78 | Age | 1,20 | 0,83 |
| Education | 1,16 | 0,86 | Education | 1,10 | 0,91 |
| Gender | 1,23 | 0,81 | Gender | 1,11 | 0,90 |
| Industry experience | 1,16 | 0,86 | Industry experience | 1,08 | 0,93 |
| Duality | 1,18 | 0,85 | Duality | 1,14 | 0,88 |
| Firmsize | 1,61 | 0,62 | Firmsize | 1,46 | 0,68 |
| Independency | 1,15 | 0,87 | Independency | 1,10 | 0,91 |
| ROA pre succession | 1,20 | 0,84 | ROA pre succession | 1,08 | 0,93 |

Hypothesis 2

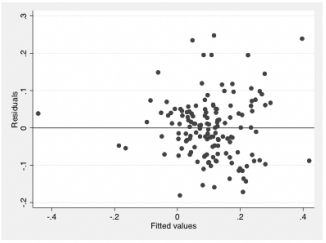
| **First stage** | | | **Second stage** | | |
|---|---|---|---|---|---|
| Variable | VIF | 1/VIF | Variable | VIF | 1/VIF |
| Age | 1,08 | 0,93 | ROA pre succession | 1,18 | 0,85 |
| Gender | 1,05 | 0,95 | Firmsize | 1,56 | 0,64 |
| Duality | 1,04 | 0,96 | Independency | 1,09 | 0,92 |
| Industry experience | 1,03 | 0,97 | | | |
| Education | 1,01 | 0,99 | | | |

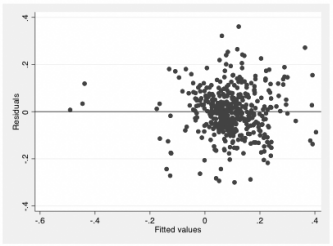
## **Appendix 4:** *Heteroskedasticity*

Hypothesis 1

**White's-T test**

| **Model 1** | chi2 | df | p | **Model 2** | chi2 | df | p |
|---|---|---|---|---|---|---|---|
| Heteroskedasticity | 144 | 143 | 0,461 | Heteroskedasticity | 344,38 | 313 | 0,107 |
| Skewness | 26,24 | 24 | 0,341 | Skewness | 25,82 | 30 | 0,684 |
| Kurtosis | 2,66 | 1 | 0,103 | Kurtosis | 7,21 | 1 | 0,007 |
| Total | 172,9 | 168 | 0,382 | Total | 377,42 | 344 | 0,104 |

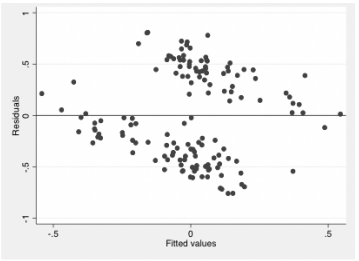



Hypothesis 2

**White's-T test**

| **Source** | chi2 | df | p |
|---|---|---|---|
| Heteroskedasticity | 96,68 | 90 | 0,296 |
| Skewness | 8,52 | 18 | 0,969 |
| Kurtosis | 26,34 | 1 | 0,000 |
| Total | 131,54 | 109 | 0,070 |




## **Appendix 5:** *2 stage-least squares regression*

| **Model 1** | Coefficient | z | **Model 2** | Coefficient | z |
|---|---|---|---|---|---|
| CEO experience | 0,006 | (0,11) | CEO experience | 0,032 | (0,27) |
| | | | Y2 | 0,032 | (0,60) |
| | | | Y3 | 0,032 | (0,60) |
| | | | Y2#CEO experience | -0,050 | (0,44) |
| | | | Y3#CEO experience | -0,031 | (0,26) |
| Age | -0,001 | (0,81) | Age | -0,001 | (0,89) |
| Education | -0,002 | (0,47) | Education | -0,002 | (0,52) |
| Gender | 0,036 | (1,53) | Gender | 0,017 | (0,64) |
| Industry experience | -0,026 | (1,31) | Industry experience | -0,027 | (1,51) |
| Duality | -0,014 | (0,26) | Duality | -0,045* | (1,69) |
| Firmsize | 0,006 | (0,38) | Firmsize | 0,007 | (0,55) |
| Independency | 0,014 | (0,78) | Independency | 0,003 | (0,16) |
| ROA pre succession | 0,506*** | (12,12) | ROA pre succession | 0,504*** | (11,43) |
| Year fixed effects | Yes | | Year fixed effects | Yes | |
| Industry fixed effects | Yes | | Industry fixed effects | Yes | |
| Clustered on firm level | No | | Clustered on firm level | Yes | |
| R-squared | 0,596 | | R-squared | 0,468 | |
| Constant | -0,027 | (0,13) | Constant | 0,004 | (0,02) |

*Note: * p<0,10; ** p<0,05; *** p<0,01*

## References


Adams, R. B., Almeida, H., & Ferreira, D. (2005). Powerful CEOs and their impact on corporate performance. *The Review of Financial Studies, 18*, pp. 1403-1432.

Algur, Siddu P., and Biradar, Jyoti G. (2017). Cooks Distance and Mahanabolis Distance Outlier Detection Methods to identify Review Spam. *International Journal Of Engineering And Computer Science, 6*, pp. 21638-21649.

Almeida, P., Dokko, G., & Rosenkopf, L. (2003). Startup size and the mechanisms of external learning: Increasing opportunity and decreasing ability? *Research Policy, 32,* pp. 301-315.

Anterasian, C., & Brugg, J., Hildebrand, C. (2020). *Predicting CEO success: When potential outperforms experience*. Spencer and Stuart

Arosa, B., Itturalde, T., & Maseda, A., 2013. The board structure and firm performance in SMEs: Evidence from Spain. *Investigaciones Europeas de Direccion y Economia se la Empresa*, *19*, pp. 127-135.

Aragón-Sánchez, A., & Sánchez-Marín, G. (2005). Strategic Orientation, Management Characteristics, and Performance: A Study of Spanish SMEs. *Journal of Small Business Management*, *43,* pp. 287-308.

Bartunek, J. M., M. K. Moch. 1987. First-order, second-order, and third-order change and organization development interventions: A cognitive approach. *Journal of Applied Behavioral Science*. *23,* pp. 483–500.

Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy, 70*, pp. 9-49.

Belenzon, S., Shamshur, A., & Zarutskie, R. (2019). CEO's age and the performance of closely held firms. *Strategic Management Journal, 40*, pp. 917-944.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies*. *The Quarterly Journal of Economics, 118*, pp. 1169-1208.

Biau, D., Kernéis, S., & Porcher, R. (2008). Statistics in brief: The importance of sample size in the planning and interpretation of medical research. *Clinical Orthopaedics and Related Research*, *466,* pp. 2282-2288.

Biggerstaff, L., Cicero, D. C., & Puckett, A. (2015). Suspect CEOs, unethical culture, and corporate misbehavior. *Journal of Financial Economics, 117*, pp. 98-121.

Bolagsverket. (2020). *Styrelse och vd i aktiebolag*

Borman, W. C., Hanson, M. A., Oppler, S. H., Pulakos, E. D., & White, L. A. (1993). Role of early supervisory experience in supervisor performance. *Journal of Applied Psychology, 78*, pp. 443-449.

Boyd, B. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal, 16*, pp. 301-312.

Burger, D. (2017). *CEOs' Personality and Abilities matter: Their Influence on SME Behavior and Performance*. Doctor of Philosophy Dissertation

Burke, S., & Collins, K. (2001). Gender differences in leadership styles and management skills. *Women in Management Review, 16*, pp. 244-257.

Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management, 30*, pp. 749-778.

Carpenter, M. A., & Sanders, W. G. (2002). Top management team compensation: The missing link between CEO pay and firm performance? *Strategic Management Journal, 23*, pp. 367-375.

Cook, R. D. (1977). Detection of influential observation in linear regression. *Technometrics, 19*, pp. 15-18.

Crossland, C., & Hambrick, D. C. (2007). How national systems differ in their constraints on corporate executives: A study of CEO effects in three countries. *Strategic Management Journal, 28*, pp. 767-789.

Crossland, C., & Hambrick, D. C. (2011). Differences in managerial discretion across countries: How nation-level institutions affect the degree to which ceos matter. *Strategic Management Journal, 32*, pp. 797-819.

Culkin, N., & Smith, D. (2000). An emotional business: A guide to understanding the motivations of small business decision takers. *Qualitative Market Research, 3*, pp. 145-157.

Collins, J. C. (2001). Good to Great: *Why Some Companies Make the Leap. . . and Others Don't*. Harper-Collins

Custodio, C., Ferreira, M., & Matos, P. (2013). Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics, 108*, pp. 471–492.

Datta, D. K., & Rajagopalan, N. (1998). Industry structure and CEO characteristics: An empirical study of succession events. *Strategic Management Journal, 19*, pp. 833-852.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*, pp. 147-160.

Dokko, G., Wilk, S., & Rothbard, N. (2009). Unpacking prior experience: How career history affects job performance. *Organization Science, 20*, pp. 51-68.

Dyke, L.S., Fischer, E.M., & Reuber, A.R. (1992). An inter-industry examination of the

impact of own experience on firm performance. Journal of Small Business Management, *30,* pp. 72–80.

Elsaid, E., Wang, X., & Davidson, W. (2011). Does experience matter? CEO successions by former CEOs. *Managerial Finance, 37*, pp. 915-939.

European Commission, (2019). SBA Fact Sheet-Sweden. European Commission, pp. 1-3.

Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: The problem revisited. *The Review of Economics and Statistics, 49*, pp. 92-107.

Finkelstein, S., & Hambrick, D. C. (1990). Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly, 35*, pp. 484-503.

Gick, M. L., & Holyoak, K. J. (1987). The cognitive basis of knowledge transfer. *Transfer of learning: Contemporary research and applications*, *1,* pp. 9-46

Gioia, D. A., & Poole, P. P. (1984). Scripts in organizational behavior. *The Academy of Management Review, 9*, pp. 449-459.

Glebbeek, A., & Bax, E. (2004). Is high employee turnover really harmful? an empirical test using company records. *Academy of Management Journal*, *47,* pp. 277-286.

Gottesman, A. A., & Morey, M. R. (2015). *CEO educational background and firm financial perfor*mance. *Journal of Applied Finance*. *20*, pp. 1-13.

Graffin, S. D., Carpenter, M. A., & Boivie, S. (2011). What's all that (strategic) noise? anticipatory impression management in CEO succession. *Strategic Management Journal, 32*, pp. 748-770.

Gupta, A. K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *The Academy of Management Journal, 27*, pp. 25-41.

Hambrick, D. C. (2007). Upper echelons theory: An update. *The Academy of Management Review, 32*, pp. 334-343.

Hambrick, D. C., Finkelstein, S., & Mooney, A. C. (2005). Executive job demands: New insights for explaining strategic decisions and leader behaviors. *The Academy of Management Review, 30*, pp. 472-491.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review, 9*, pp. 193-206.

Hambrick, D. C., & Quigley, T. J. (2014). Toward more accurate contextualization of the CEO effect on firm performance. *Strategic Management Journal, 35*, pp. 473-491.

Hamori, M., & Koyuncu, B. (2015). Experience matters? the impact of prior CEO experience

on firm performance. *Human Resource Management, 54*, pp. 23-44.

Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review, 49*, pp. 149-164.

Higgins, M. C. (2006). *Career Imprints: Creating Leaders Across an Industry*. Jossey-Bass

Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *Stata Journal, 7*, pp. 281-312.

Hoff, J., Lawrence A., & Scaturro J. (2002). *Public companies.* N.Y. Law Journal Press

Huang, H., Lai, M., Lin, L., & Chen, C. (2013). Overcoming organizational inertia to strengthen business model innovation : An open innovation perspective. *Journal of Organizational Change Management, 26*, pp. 977-1002.

Ip, B., & Jacobs, G. (2006). Business succession planning: A review of the evidence. *Journal of Small Business and Enterprise Development, 13*, pp. 1-16.

Hagel III, J., Brown, J., and Davison, L. (2010). The best way to measure company performance. *Harvard Business Review.*

Kaplan, S. N., Klebanov, M. M., & Sorensen, M. (2012). Which CEO characteristics and abilities matter? *The Journal of Finance, 67*, pp. 973-1007.

Karaevli, A. (2007). Performance consequences of new CEO 'Outsiderness': Moderating effects of pre- and post-succession contexts. *Strategic Management Journal, 28*, pp. 681-706.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Macmillan.

Kesner, I. F., & Sebora, T. C. (1994). Executive succession: Past, present & future. *Journal of Management, 20*, pp. 327-372.

Khan, W., & Vieito, J. (2013). CEO gender and firm performance. *Journal of Economics and Business, 67*, pp. 55-66.

Khurana, R. (2001). Finding the right CEO: Why boards often make poor choices. *Sloan Management Review, 43*, pp. 91-95.

Koyuncu, B., Firfiray, S., Claes, B., & Hamori, M. (2010). CEOs with a functional background in operations: Reviewing their performance and prevalence in the top post. *Human Resource Management, 49*, pp. 869-882.

Lai, Y., Saridakis, G., Blackburn, R., & Johnstone, S. (2016). Are the HR responses of small firms different from large firms in times of recession? *Journal of Business Venturing, 31*, pp. 113-131.

Leone, A. J., Minutti-Meza, M., & Wasley, C. E. (2016). Influential observations and inference in accounting research. *The Accounting Review, 94*, pp. 337-364.

Lieberson, S., & O'Connor, J. F. (1972). Leadership and organizational performance: A study of large corporations. *American Sociological Review, 37*, pp. 117-130.

Limbach, P., & Sonnenburg, F. (2015). CEO Fitness and Firm Value. *Social Science Research Network*, *working paper*, pp. 1-53.

Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management, 32*, pp. 646-672.

Mackey, A. (2008). The effect of CEOs on firm performance. *Strategic Management Journal, 29*, pp. 1357-1367.

Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. *The handbook of social psychology, 3*, pp. 137-230.

Matzler, K., Bailom, F., & Mooradian, T. (2007). Intuitive decision making. *MIT Sloan Management Review, 49*, pp. 13-15.

McCall, M. (2004). Leadership development through experience. *Academy of Management Executive, 18*, pp. 127-130.

McDonald, M. L., Westphal, J. D., & Graebner, M. E. (2008). What do they know? the effects of outside director acquisition experience on firm acquisition performance. *Strategic Management Journal, 29*, pp. 1155-1177.

Megginson, W. L., & Netter, J. M. (2001). From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature, 39*, pp. 321-389.

Morrison, R. F., & Brantner, T. M. (1992). What enhances or inhibits learning a new job? A basic career issue. *Journal of Applied Psychology, 77*, pp. 926-940.

Murphy, K., & Zábojník, J. (2007). Managerial capital and the market for CEOs. *Organizations & Markets eJournal.*

Murphy, K. J., & Zabojnik, J. (2004). CEO pay and appointments: A market-based explanation for recent trends. *American Economic Review, 94*, pp. 192-196.

Naveen, L. (2006). Organization complexity and succession planning. *Journal of Financial and Quantitative Analysis, 41*, pp. 661-683.

Nienhüser, W. (2008). Resource dependence theory - how well does it explain behavior of organizations? *Management Revue, 19*, pp. 9-32.

O'Brien, R. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity, 41*, pp. 673-690.

Penman, S. H., & Zhang, X. (2002). Accounting conservatism, the quality of earnings, and stock returns. *The Accounting Review, 77*, pp. 237-264.

Pfeffer, J. (1981). Management as Symbolic Action: The Creation and Maintenance of Organisational Paradigms. *Research in Organizational Behavior, 3,* pp. 1-52.

Porter, M. E., Lorsch, J. W., & Nohria, N. (2004). Seven surprises for new CEOs. *Harvard Business Review.*

Quigley, T. J., & Hambrick, D. C. (2015). Has the "CEO effect" increased in recent decades? A new explanation for the great rise in america's attention to corporate leaders. *Strategic Management Journal, 36*, pp. 821-830.

Quinones, M., Ford, J., & Teachout, M. (1995). The relationship between work experience and job performance: A conceptual and meta-analytic review. *Personnel Psychology, 48*, pp. 887-910.

Rainey, H. G., Backoff, R. W., & Levine, C. H. (1976). Comparing public and private organizations. *Public Administration Review, 36*, pp. 233-244.

Rerup, C. (2005). Learning from past experience: Footnotes on mindfulness and habitual entrepreneurship. *Scandinavian Journal of Management, 21*, pp. 451-472.

Rice, G. H., & Hamilton, R. E. (1979). Decision theory and the small businessman. *American Journal of Small Business, 4*, pp. 1-9.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management, 35*, pp. 718-804.

Robinson, R., & Pearce, J. (1984). The research thrust in small firm strategic planning. *The Academy of Management Review, 9*, pp. 128.

Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing, 26*, pp. 441-457.

Rosopa, P., Schaffer, M., & Schroeder, A. (2013). Managing heteroscedasticity in general linear models. *Psychological Methods, 18*, pp. 335-51.

Rynes, S. L., Orlitzky, M. O., & Bretz Jr., R. D. (1997). Experienced hiring versus college recruiting: Practices and emerging trends. *Personnel Psychology, 50*, pp. 309-339.

Sandberg, W., Robinson, R., & Pearce, J. (2001). Why small businesses need a strategic plan. *Business and Economic Review (Columbia, S.C.), 48*, pp. 12-15.

Saridakis, G., Muñoz Torres, R., & Johnstone, S. (2013). Do human resource practices enhance organizational commitment in SMEs with low employee satisfaction? *British Journal of Management, 24*, pp. 445-458.

Schein, E. H. (1992). *Organizational Culture and Leadership.* Jossey-Bass: San Francisco, CA.

Stock, J., & Yogo, M. (2005). *Identification and inference for econometric models*. Cambridge University Press.

Verhaeghen, P., & Salthouse, T. (1997). Meta-analyses of age-cognition relations in adulthood: Estimates of linear and nonlinear age effects and structural models. *Psychological Bulletin, 122*, pp. 231-49.

Waldman, D., Ramirez, G., House, R., & Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty. *Academy of Management Journal, 44*, pp. 134-143.

Walsh, J. P. (1988). Selectivity and selective perceptions: An investigation of managers' belief structures and information processing. *Academy of Management Journal*, *31*, pp. 873–896.

Wang, C., Walker, E., & Redmond, J. (2011). Explaining the lack of strategic planning in SMEs: The importance of owner motivation. *ECU Publications, 12,* pp. 1-16.

Wells, P. (2002). Earnings management surrounding CEO changes. *Accounting & Finance, 42*, pp. 169-193.

Westerberg, M., Singh, J., & Häckner, E. (1997). Does the CEO matter? an empirical study of small swedish firms operating in turbulent environments. *Scandinavian Journal of Management, 13*, pp. 251-270.

White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica, 48*, pp. 817-838.

Whitley, R. (1989). On the nature of managerial tasks and skills: Their distinguishing characteristics and organization. *Journal of Management Studies, 26*, pp. 209-224.

Wolff, J. A., & Pett, T. L. (2006). Small-firm performance: Modeling the role of product and process improvements*. *Journal of Small Business Management, 44*, pp. 268-284.

Wooldridge, J.M. (2009), *Introductory Econometrics: A Modern Approach (4th Edition)*. Cengage Learning.

Yazdanfar, D., & Öhman, P. (2015). The growth-profitability nexus among swedish SMEs. *International Journal of Managerial Finance, 11*, pp. 531-547.

Zhang, Y. (2008). Information asymmetry and the dismissal of newly appointed CEOs: An empirical investigation. *Strategic Management Journal, 29*, pp. 859-872.