

**New CEO Succession Origin and Strategic Change in Turnaround Situations:  
A Relational Perspective**

**ABSTRACT**

We study the effect of new CEO succession origin on strategic change in firms facing turnaround situations. Taking a ‘relational perspective’ of CEO succession, we argue that the degree to which outside CEO succession associates with strategic change depends on the relational network between the outside CEO and key incumbent executives prior to succession. Using data from 108 companies with new CEOs in turnaround situations between 1993 and 2015, we find that high CEO outsidership has a negative effect on strategic change in firms facing turnaround conditions – while this effect is weaker in the later years of the new CEO’s tenure. We further find that outsider CEOs with more connected intra-TMT network brings a higher degree of strategic change to the firm early after succession. Overall, our paper contributes to the extant literature on CEO succession by underscoring the important role of the relational CEO-TMT interface when a new CEO takes charge with the mandate to bring about strategic change (i.e., in turnaround conditions).

**Keywords:**

CEO succession, corporate turnaround, strategic change, CEO-TMT relation

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## **INTRODUCTION**

Extant research on Chief Executive Officer (CEO) succession has long questioned whether the appointment of a new CEO is beneficial, or detrimental, for firms facing financial distress (Finkelstein, Hambrick & Cannella, 2009). Along these lines, corporate financial decline has been regarded as a key factor of executive job demands to organizational upper echelons (Bibeault, 1982; Chen, 2015), as it associates with a mandate to question the firm's strategic status quo by promoting strategic renewal. CEO replacement, in this regard, has been considered as an integral part of the turnaround strategy (Bibeault, 1982; Hofer, 1980; Schweizer & Nienhaus, 2017). Empirical evidence, for example, shows that CEO turnover is higher in turnaround situations (Bibeault, 1982: 42; Chen & Hambrick, 2012) and that firms tend to replace corporate leadership with the ultimate aim to shake things up, and respond to the crisis facing them via alternation to the strategic status quo of the organization. Yet, while CEO replacement in crisis conditions has been well documented, extant research provides mixed results as to whether the appointment of a new CEO in crisis conditions is the right path for firms that require to swiftly realize strategic change when it is needed (i.e., in turnaround conditions) (Chen & Hambrick, 2012).

Within this broad scope, upper echelons scholars have emphasized the key role of CEO succession origin – defined as whether the new CEO is hired from inside versus outside the firm – as an important determinant of strategic renewal (Karaevli & Zajac, 2013; Zhang & Rajagopalan, 2010). The predominant assumption is that appointing an outsider CEO associates with bolder alternations to the corporate strategic status quo – as it promotes transfer of new knowledge beyond corporate boundaries, and helps the firm to question pre-established corporate processes (Shen &

Cannella, 2002b). Since outsider CEOs are generally less committed to the strategy of the organization, they are expected to promote swift strategic changes in the years after their appointment – and thereby to more effectively respond to their hiring mandate for change in turnaround conditions (Finkelstein et al., 2009). Yet, while the renewal prospects of outside succession are clear, a number of scholars have recently stressed that appointing a CEO from outside the firm associates with a number of challenges – particularly with regard to the outside successor’s lack of internal knowledge and understanding of how the organization operates (Karaevli & Zajac, 2013). Since outsider CEOs lack an internal understanding of the firm, they require time to bring about change – and thereby to respond to the internal and external imperatives surrounding the organization (Georgakakis & Ruigrok, 2017). The unreconciled debate continues and raises question on whether outside versus inside CEO succession has substantial effect on strategic turnarounds, and how such effect is realized.

In this study we attend to answer this question by adopting a ‘relational perspective’ of CEO succession. We argue that the degree to which outside CEO succession associates with strategic change depends on the relational network the outsider CEO has established with key incumbent executives prior to succession. Interpersonal social ties between the new CEO and key incumbent executives foster trust and enable smooth communication, cooperation and interaction (Carpenter, Li & Jiang, 2012; Uzzi, 1997). Collective managerial cognition and strategic consensus at the interface between the CEO and the top management team (TMT) are crucial for the effective decision-making and strategy implementation, and help the new outsider CEO to swiftly understand and alter the firm’s strategic focus (Bromiley & Rau, 2016; Hambrick, 2007; Hambrick & Mason, 1984; Simsek, Veiga, Lubatkin & Dino, 2005; Trahms, Ndofor & Sirmon, 2013). We test our framework using data from CEO replacements in turnaround firms between

1993 and 2015.

Our study makes several contributions. First, we conceptually argue and empirically find that new CEOs with higher outsidership bring lower degree of strategic change to the firm after their succession; but the difference is less strong in the later years of their tenure – when the outsider CEO has become familiarized with the firm’s internal context. Thus, our theory and results question the generally accepted view that appointing an outsider CEO implies swift strategic changes in turnaround conditions. Second, our study shows that new CEOs with higher intra-TMT network bring higher degree of strategic change to the firm early after succession. In this regard, our work underscores the importance of considering relational factors at the CEO-TMT interface for resolving the various debates in CEO succession research. Third, our study responds to Trahms, Ndofor and Sirmon (2013)’s call for considering how the successor’s attributes and experiences impact organizations in crisis conditions. Our paper also indicates the necessity of a more complete research framework on the turnaround process where the interaction of various strategic actions are better studied.

## **THEORETICAL BACKGROUND**

Organizational turnaround literature has long been concerned on how organizations with a threatening financial decline can adapt strategies in order to alter their status quo (Barker & Duhaime, 1997; Hofer, 1980; Schendel, Patton & Riggs, 1976; Schweizer & Nienhaus, 2017). A threatening decline is typically observed by a low financial performance (Audia & Greve, 2006; Barker & Mone, 1994; Bruton, Oviatt & White, 1994; Chen & Hambrick, 2012; Hambrick & Schechter, 1983; Trahms et al., 2013; Winn, 1997) or the filing of bankruptcy (Daily & Dalton, 1995; Latham & Braun, 2009). Prior literature has mainly focused on company’s managerial

responses and strategic actions toward decline, and their effects on turnaround outcomes (Trahms et al., 2013). CEO replacement is one of the common strategic actions of turnaround management and its effects have been widely studied. Scholars, for example, show a high rate of CEO replacement after a significant decline at 74% (Bibeault, 1982: 42), and about a half of such replacements took place within the first two years after the decline (Chen & Hambrick, 2012).

Some scholars advocate that changing the firm's strategic leadership, especially the CEO, is crucial for a turnaround to be successful (Bibeault, 1982; Hofer, 1980; Kanter, 2003). They claim that the decline indicates an ineffective and incompetent management which requires strategic and organizational changes (Bibeault, 1982: 35; Chen & Hambrick, 2012; Schweizer & Nienhaus, 2017). Under turnaround conditions, new CEOs are therefore expected to pay attention to the existing problems (Kanter, 2003), as well as to make changes with their fresh perspectives to turn around the firm's strategy (Hofer, 1980). In this regard, empirical evidence advocates a positive effects of CEO replacement on levels of strategic change, measured by the number of strategic actions taken by the new CEO (Barker & Duhaime, 1997).

In direct contrast, however, another stream of research challenges the substantial effect of CEO replacement in a turnaround situations – stressing that replacing corporate leadership can often lead to organizational disruption, and thereby slower strategic change and often resulting in more disadvantageous effects for organizations (Finkelstein et al., 2009: 205; Karaevli & Zajac, 2013; Zhang & Rajagopalan, 2004). We consider that these opposing views toward the effects of CEO replacement in turnaround conditions rest on: (a) a lack of attention on strategic change as a direct outcome factor of CEO replacement, and (b) the omission of a “relational perspective” that focuses on the match between the new CEO and existing TMT members. Both call for a more fine-grained attention to the process of CEO replacement in turnaround situations to understand better

how new CEOs may facilitate or hamper the change for recovery.

Several scholars focus on the process of turnaround management to explore the sequence of and relationship between different turnaround activities. While Pearce and Robbins (1993) suggest a sequential stage model of turnaround, where strategic actions follow the retrenchment actions, Arogyaswamy, Barker and Yasai-Ardekani (1995) argue that a series of turnaround actions can be taken simultaneously and focus on the interdependency of these activities. In this regard, some scholars argue that ‘changing the CEO for the sake of change’ will have limited substantial effect (Chen & Hambrick, 2012). Empirical evidence also shows that a CEO replacement per se does not help the troubled companies to recover (Chen & Hambrick, 2012; Daily & Dalton, 1995). It is the background and characteristics of the new CEO that differentiate him or her from the incumbent, and allow him or her to make different decisions and bring changes to the firm (Finkelstein et al., 2009: 211). Along these lines, research on the effects of CEO replacement has therefore taken new CEO characteristics into consideration (Schweizer & Nienhaus, 2017; Trahms et al., 2013). CEO origin is an important characteristic and has been widely studied in CEO succession research (Berns & Klarner, 2017; Finkelstein et al., 2009). Being new to the firm, outside successors tend to be more cognitively and socially open-minded (Finkelstein et al., 2009: 191) as naturally less familiar with the company’s business and operations (Bailey & Helfat, 2003; Berns & Klarner, 2017; Finkelstein et al., 2009: 200; Georgakakis & Ruigrok, 2017; Karaevli, 2007). On the one hand, due to their lack of intra-firm familiarity, outsider CEOs may find more difficult to swiftly alter the organization’s strategic status quo. At the same time, their lower commitment to the firm’s prior strategy is likely to drive them toward bolder strategic changes in turnaround conditions.

Given that CEO-TMT relational features are key when a new CEO takes charge

(Georgakakis, Heyden, Oehmichen & Ekanayake, 2019), and as CEO-TMT interfacing mechanisms are important in turnaround situations (Chen & Hambrick, 2012), we posit that considering the CEO-TMT relational interface can help us understand the effects of CEO succession origin on strategic renewal in turnaround conditions. The social network among the new CEO and other TMT members tend to improve their collective managerial cognition and strategic consensus with effects on decision-making and strategy implementation (Bromiley & Rau, 2016; Carpenter, Geletkancz & Sanders, 2004; Hambrick, 2007; Kellermanns, Walter, Lechner & Floyd, 2005; Simsek et al., 2005; Trahms et al., 2013), which is reflected by the degree of strategic change.

Combining the arguments above, we propose a theoretical framework on CEO replacement in turnaround firms as shown in Figure 1. We suggest that new CEO outsidership, as a continuum of new CEO origin, affects post-succession strategic change. Adopting a longitudinal perspective, we explore how strategic change through new outsider CEOs may unfold across time by observing the moderating effect of new CEO tenure. Further on, we investigate how the new CEO-TMT relational network prior to the new leader's appointment mediates the predicted relationship. Below we discuss the relationship among these factors and develop our hypotheses.

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Insert Figure 1 about here  
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## **HYPOTHESES**

### **New CEO Outsidership and Post-succession Strategic Change in Turnaround Situations**

New CEOs appointed from outside the firm have become increasingly frequent in recent years. Such newly appointed leaders are generally less committed to the firm's status quo (Hambrick et al., 1993; Schwartz & Menon, 1985) because they were not involved in the strategy

planning prior to their appointment and thus feel less psychological pressure to criticize the problems (Lant, Milliken & Batra, 1992). They are also less subject to the social norms of the firm (Cragun, Nyberg & Wright, 2016) and more willing to question pre-established practices (Kesner & Sebor, 1994; Zhang & Rajagopalan, 2004). Drawing on their experiences outside of the firm, outside successors are able to bring new ideas from a fresh perspective (Cragun et al., 2016), and are thus generally assumed to be better equipped for promoting strategic renewal in turnaround conditions. Besides, the new external resources and networks held by outside successors, such as access to new possible suppliers and creditors, they provide the firm with more choices to optimize the operation and reorient the strategy (Chen, Treviño & Hambrick, 2009).

However, outside successors are often lacking firm- and industry-specific knowledge and social capital (Bailey & Helfat, 2003; Berns & Klarner, 2017; Finkelstein et al., 2009; Georgakakis & Ruigrok, 2017; Karaevli, 2007), which could lead to difficulties in strategy planning and hinder the initiation of certain strategic actions (Zhang & Rajagopalan, 2010). On the contrary, inside succession tends to be less disruptive for the firm (Finkelstein et al., 2009; Zhang & Rajagopalan, 2004) they are more familiar with the internal process and culture (Cragun et al., 2016) and more likely to be aware of hidden problems facing the organization. To come up with a suitable proposal toward strategic renewal, the outside successor has to put attention on learning the business and operations of the firm and adapting to the organization and its culture (Finkelstein et al., 2009: 200; Sashkin, 2011). Moreover, when an outsider CEO takes charge, executive team members often lack common relational background with the externally hired leader (Friedman & Saul, 1991; Georgakakis & Ruigrok, 2017). With outside successors having a limited shared understanding with the existing executives due to different prior-succession experience and lack of co-working relation – outsider CEOs may often find it challenging to swiftly learn about the internal processes

of the firm. Thus, the team collective cognition tends to be lower (Mathieu, Maynard & Rapp, 2008; Mathieu, Goodwin, Heffner, Salas & Cannon-Bowers, 2000) and strategy consensus is less likely to be achieved under conditions of outside succession (Bourgeois, 1980; Kellermanns et al., 2005; Tarakci, Ates, Porck, Van Knippenberg, Groenen & De Haas, 2014).

Further, as insiders are typically preferred due to the familiarity and less interruption (Finkelstein et al., 2009; Zhang & Rajagopalan, 2004), the board of directors is likely to introduce outsiders only when they are remarkably better than the inside candidates (Agrawal, Knoeber & Tsoulouhas, 2006). Outside succession implies the admission of prior mistakes (Chung, Rogers, Lubatkin & Owers, 1987), which gives rise to the doubt on the capability and efficacy of the incumbent CEO and the involved executive team. In addition, the incumbent executives, who fail to be promoted to the CEO post and who are often considered as (at least partially) accountable for the financial distress facing the firm, tend to feel inferior and even hostile toward the new outside CEO – causing tension within the TMT. This may further impede good communication and strategic consensus in turnaround conditions (Shen & Cannella, 2002a). Such tension may also lead to departure or dismissal of the executives, with such shift of the management team causing further disruption to the firm (Friedman & Saul, 1991). Thus, based on the above, we may reasonably expect that successors with lower level of outsidership are more capable to initiate strategic changes early after succession – due to their familiarity with the firm and implement those changes through the supportive executive team and their intra-firm social capital.

*Hypothesis 1 (H1): In turnaround situations, new CEO outsidership will have a negative effect on post-succession strategic change.*

### **Moderating Effect of New CEO Tenure**

Time plays a key role in the organizational development and strategic change (Kunisch,

Bartunek, Mueller & Huy, 2017) as top managers ‘do not think, behave, or perform uniformly over their tenures’ (Henderson, Miller & Hambrick, 2006). Studies on upper echelons, thereby, include CEO tenure as an important factor and show its effect on firm’s strategic change and performance over time (Carnahan, Agarwal & Campbell, 2010; Henderson et al., 2006; Miller & Shamsie, 2001; Wu, Levitas & Priem, 2005; Zhang & Rajagopalan, 2010). Focusing on the dynamics of the CEO’s tenure in office, Hambrick and Fukutomi (1991) proposed an inverted U-shaped relationship between tenure and firm performance. Company’s performance improves over time in a new CEO’s early tenure with his or her growing familiarity with the company, while CEO’s insularity and inertia in the later the tenure results in declining performance (Grant, 2003; Hambrick & Fukutomi, 1991; Schweizer & Nienhaus, 2017). Henderson, Miller and Hambrick (2006) explained the relationship as a joint effect of two simultaneous processes: 1) adaptive process involving the implementation of a CEO’s initially suitable paradigm and 2) maladaptive process involving the growing mismatch between a CEO’s paradigm and the environment.

A new CEO needs time to develop networks, build relationship with other top managers (Henderson et al., 2006), learn the business and its culture, and diagnose the problems of the company for change (Graffin, Carpenter & Boivie, 2013). Adaptive process witnesses a concave relationship between CEO tenure and company performance (Henderson et al., 2006), and outside successors, being less familiar with company, has more upside potential while inside successor tend to reach the peak sooner. Being in charge of the firm for longer, the new CEO gets more inside knowledge and experience – an aspect that is especially critical for outside successors who require to understand the firm’s internal context prior to promoting strategic renewal. As Finkelstein, Hambrick and Cannella (2009: 202) argue, the difference between the degree of strategic change brought by an outsider new CEO or an insider CEO is stronger in the early tenure

than the later tenure.

Newly nominated in turnaround situations, CEO successors, regardless of their origin, are expected to have suitable characteristics for company's turnaround strategy at their nomination, and their maladaptive process tends to follow a similar pace. Therefore, the adaptive effect of CEO tenure differentiates outsider vs. insider succession. Staying longer in the firm, new outside CEOs may overcome the disadvantages linked with a lack of intra-firm familiarity. With time, they may acquire firm- and industry-specific knowledge and skills and build a network with the executive team and other stakeholders. The possible disruption resulting from the outside succession may return to normal after a transition period, and the successor will be able to concentrate on initiating and implementing strategic changes to turn around the firm performance. At the same time, the main advantage of the outsider, holding external experiences and networks, is still in place. Thus, we may reasonably expect new CEOs with higher outsidership to be more likely to implement strategic changes at later tenure than in their early tenure.

*Hypothesis 2 (H2): As new CEO tenure increases, the negative effect of new CEO outsidership on strategic change becomes less pronounced.*

### **Effect of New CEO Intra-TMT Network**

As discussed before, solid intra-firm social capital is considered an advantage of inside successors to initiate strategic change in the company (Finkelstein et al., 2009; Zhang & Rajagopalan, 2003), while the lack of social network connection may hinder the implementation of an outsider CEO's new strategy. Yet, some outsider CEOs may have already developed networks with key organizational actors prior to their appointment – an aspect that will allow them to more smoothly integrate in the incumbent TMT and thereby to promote strategic renewal early after their appointment.

Indeed, prior literature studying the effect of CEO succession assumes that new CEO's interactions with other executives in the company have effect on post-succession strategic change (Bromiley & Rau, 2016; Georgakakis et al., 2019). Although a CEO has certain discretion on strategic decisions, he or she cannot implement his or her strategy smoothly without the support of other top managers (Carpenter et al., 2004; Hambrick, 2007; Hambrick & Mason, 1984). The CEO's network position in the TMT affects his or her power and social influence in the team (Carpenter et al., 2012; Ibarra & Andrews, 1993). Interpersonal social ties between the new CEO and other top managers enable communication and foster trust, which facilitate information exchange, cooperation and support (Carpenter et al., 2012; Uzzi, 1997). Given that most of the existing top managers (except the newcomers) hold social ties with each other through the co-working experience, a new CEO connected to some of them tends to build relationships with other unknown managers faster due to the transitivity of social ties (Ahuja, Soda & Zaheer, 2012). At the company level, the structure of the intra-TMT network may have an effect on the group effectiveness and performance (Carpenter et al., 2012; Reagans et al., 2004; Reagans & Zuckerman, 2001). Collective managerial cognition and strategic consensus among the TMT affect the choice of turnaround activities and the effective implementation of strategic decisions (Bromiley & Rau, 2016; Hambrick, 2007; Hambrick & Mason, 1984; Kellermanns et al., 2005; Simsek et al., 2005; Trahms et al., 2013), and thus, the CEO's intra-TMT network tend to facilitate the process through better social interaction and knowledge sharing (Bromiley & Rau, 2016; Carpenter et al., 2012; Mathieu et al., 2008).

Outsider CEOs, though holding no experience in the company, may build social ties with incumbent executives of the company prior the succession through various means, including co-studying and co-working experience. Based on the discussion above, we may reasonably expect

that a new CEO's intra-TMT network with the other top managers facilitates the initiation and implementation of strategic change at the early tenure.

*Hypothesis 3 (H3): The effect of new CEO outsidership on post-succession strategic change is mediated by new CEO's intra-TMT network; the more connected network of the new outsider CEO with other TMT members, the less the negative effect of CEO outsidership on post-succession strategic change.*

## METHODS

### Sample

We draw the sample from Standard and Poor's 1500 index (S&P 1500) companies between the year 1993 and 2015. We exclude the financial firms from our sample (Chen & Hambrick, 2012) due to its specific industry properties and the wide failure during the financial crisis. In addition, we exclude the companies with diversified businesses, where more than 30% revenues are gained from a company's non-core-business industry (Chen & Hambrick, 2012; Zhang & Rajagopalan, 2003, 2010), so as to keep a meaningful industry control for the relevant measurements. The company information, as well as its segment level information, is obtained from the *Compustat* database, which covers a wide range of both active and inactive public companies in North America. We distinguish among business sectors by their Standard Industrial Classification (SIC) code.

### *Identification of turnaround situations*

Previous turnaround literature identifies a company in the turnaround situation differently. As summarized by Trahms, Ndofor and Sirmon (2013) in their recent review paper, some scholars observe the consecutive years of decline in return on assets (ROA) (Audia & Greve, 2006; Winn, 1997) or return on invested capital (ROI) (Barker & Mone, 1994; Bruton, Ahlstrom & Wan, 2003; Morrow, Johnson & Busenitz, 2004), and others compare the firm performance to the absolute

threshold (Chen & Hambrick, 2012; Hambrick & Schechter, 1983; Ndofor, Vanevenhoven & Barker, 2013). We follow the latter and set the break-even point as the threshold: we identify a turnaround situation by observing an abrupt operating loss (i.e., negative operating income) after at least two years of satisfactory performance (Chen & Hambrick, 2012). Grounded on agency theory, the management of a company is supposed to maximize the shareholder value, which is reflected in the financial performance (Brealey, Myers & Allen, 2009: 11). When a company with good historical performance suddenly shows an unexpected operating loss, its board of directors would be under pressure to take actions for restoring investors' confidence and turnaround of performance, despite of industry environment (Chen & Hambrick, 2012); replacing the CEO is one of the actions.

Following Chen and Hambrick (2012), we consider that a company has satisfactory performance when its operating return before extraordinary items on equity (ROE) is higher than the cost of equity (COE). ROE is calculated as the quotient of operating income before extraordinary and shareholders' equity and COE is calculated as:

$$COE_{i,t} = Rf_t + \beta_{i,t} \times Risk_p$$

, as adopted by Chen and Hambrick (2012), where  $Rf_t$  refers to the risk-free rate for one-year US treasury bills,  $\beta_{i,t}$  is the beta of firm  $i$  at time  $t$ , and  $Risk_p$  is the market risk premium, which is estimated as 7% (Brealey et al., 2009; Chen & Hambrick, 2012). Applying the criteria to our sample, we identify 294 companies in turnaround situations. Since our sample companies cover different industries and the turnaround situations are identified in different years, we attempt to eliminate the industry difference and time difference by adjusting our measurements, which is to be introduced later in variables and measures.

We define  $T_0$  as the year of decline, when a company experienced the abrupt operating

loss, and the median ROE of the 294 turnaround cases in  $T_{-2}$ ,  $T_{-1}$  and  $T_0$  are 25.25%, 21.92% and -7.92% respectively, as shown in Figure 2.

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### ***CEO replacement***

Among the 294 sample companies in the turnaround situation, we further identify the CEO replacement occurring within three years after the decline, namely in  $T_1$ ,  $T_2$  and  $T_3$ , because this time frame is related to the company's turnaround strategy. We exclude the CEO replacement in  $T_0$  to avoid reverse causality, because CEO change can be a cause of a performance decline in the same year due to managerial interruption, and it is not relevant to turnaround management. We also exclude interim CEOs, who take the position temporary before a suitable successor is found (usually less than one year), because they are less likely to make long-term strategic changes. In the end, from the sample of the 294 turnaround cases, we identify 108 CEO replacement cases, which constitute the final sample for the main study of this paper. The number of CEO replacement cases by time is shown in Figure 2. CEO information is obtained from the *Execucomp* database and we manually check the details in companies' original proxy reports.

Studying the effect of CEO replacement in the turnaround situations, we observe the post-succession strategic change of the companies in charge by the 108 new CEOs for up to 4 years after the decline in  $T_0$ , as shown on Figure 2. We adopt a multiyear approach because strategic change through new CEOs may unfold over time (Chen & Hambrick, 2012; Karaevli, 2007; Karaevli & Zajac, 2013; Shen & Cannella, 2002b). We get a panel data of 250 observations where new CEOs at different companies constitute the cross-sectional index and the time of observation ( $T_1$  to  $T_4$ ) constitute the time index. The number of observations is smaller than 432 (108 CEOs  $\times$

4 observing years) for four reasons: Firstly, post-succession strategic change is observed only after the succession. Since we include CEO replacement occurring at latest in  $T_3$  in our sample, numerous companies are observed for less than four years; secondly, some new CEOs left the company earlier than  $T_4$ ; thirdly, some companies delisted before  $T_4$  and thus the information after that is not available; and lastly, some observations are excluded due to missing data.

## **Variables and Measures**

### ***Post-succession strategic change***

In consistent with the previous literature in strategic change (Datta, Rajagopalan & Zhang, 2003; Finkelstein & Hambrick, 1990; Karaevli & Zajac, 2013; Oehmichen, Schrapp & Wolff, 2017; Zhang & Rajagopalan, 2010), we adopt a composite measure considering four key strategic indicators: 1) plant and equipment newness (net P&E/gross P&E), 2) nonproduction overhead (selling, general, and administrative expenses/sales), 3) inventory level (inventories/sales), and 4) financial leverage (total debt/equity). Those indicators are chosen because they are controllable by the CEO and the top management, and influential to the firm performance (Finkelstein & Hambrick, 1990). The strategic change in each dimension takes the absolute difference of the indicator in the two consecutive years. We then adjust the strategic change outcome in each dimension of a company by the industry median in the consecutive years, where the concerned industry is identified by company's four-digit SIC code. By subtracting the industry medium in the respective time period, we control the effects of industry difference and time difference among our sample companies. The adjusted indicators are then standardized within the sample (*z-score*; *mean=0, standard deviation =1*). Standardizing makes the four indicators comparable and addable since they follow the same distribution. Finally, we take the average of the standardized values of the four indicators for each company at each point of time as the degree of strategic change

(Finkelstein & Hambrick, 1990; Oehmichen et al., 2017).

### *New CEO outsidersness*

Following Karaevli (2007), we measure the new CEO outsidersness as an index variable, where a new CEO's pre-succession experiences in the concerned firm and the concerned industry are both taken into consideration. This measure is adopted because it is not the insider or outsider status as such leading to changes, but the characteristics which are linked to the origin and more suitable to be measured in continuous terms rather than binary ones (Finkelstein et al., 2009; Finkelstein & Hambrick, 1996; Karaevli, 2007; Karaevli & Zajac, 2013; Shen & Cannella, 2002b). The index variable takes the average value of the inversed normalized (unity-based) pre-succession firm tenure and industry tenure. The value lies between 0 and 1, where a higher degree of outsidersness means less company and industry experience, and 1 refers to an extreme outsider with neither prior experience in the concerned company nor in the same industry. The company tenure is the accumulative years of a new CEO previously employed as an executive in the same company and the industry tenure in the same industry, identified by the four-digit SIC code. The company tenure is also counted into the industry tenure because the CEO gets both the company- and industry-related experience (Karaevli, 2007). The data of the CEO working experience after 1992 are obtained from the *Execucomp* database, and we manually collected the information before 1992 by reviewing CEOs' biography in the company proxy statements. We count the prior experience of each CEO until he or she joined in the turnaround company, so new CEO outsidersness is a time-invariant variable.

As discussed in the theoretical background, previous literature mostly measures new CEO origin dichotomously, where an inside CEO is coded as 0 and an outside CEO is coded as 1, or applies the eight-point scale from extreme insider to extreme outsider (Finkelstein et al., 2009:

192). To be comparable with those studies, we adopt both the dichotomous measure and the eight-point scale measure for robustness test and get similar results, as shown in the Appendix: Table A1.

### ***New CEO tenure***

New CEO tenure is taken as a moderating variable in our study. It is measured as the number of years since the new CEO is nominated by the concerned company in the turnaround situation and it is a time-variant variable.

### ***New CEO intra-TMT network***

To test hypothesis 3, we introduce a new variable in our study: new CEO intra-TMT network. It is measured by the degree centrality of the new CEO in the TMT at the year of nomination, adjusted by dividing the maximum number of degrees, namely the size of the TMT except the CEO him- or herself (Freeman, 1978; Li, 2013). Focusing on the social network connection between the new CEO and other TMT members prior the succession, new CEO intra-TMT network shows the embeddedness of the new CEO in the company's TMT at the his or her early tenure. The social tie is identified between two individuals through their co-working, co-studying and co-directorate relations in the same organization. We collect the network data from *BoardEx* database and manually check the information in the proxy statement of our sample companies. Among the 108 new CEOs, we fail to find the full personal profile of 13 new CEOs and thus exclude them from the sample when analyzing the effect of new CEO intra-TMT network.

### ***Control variables***

Previous literature on turnaround and CEO succession has identified other relevant factors of strategic change. We control the following variable, to focus on the effect of new CEO outsidership and new CEO intra-TMT network. *Firm decline severity*, measured by ROE of the

company at  $T_0$ , is controlled because it shows effect on company's turnaround strategy and subsequent performance during the turnaround (Barker & Duhaime, 1997; Chen & Hambrick, 2012). *Firm prior-year performance* is a time-variant variable, measured by the company's return on assets (ROA) in the prior year ( $t_{-1}$ ). We observe a company's turnaround management for four years, and its performance in the prior year indicates the need of subsequent strategic change in the observing year. *Firm size* is measured by the logarithm of the sales in the concerned year. The company-related data are obtained from *Compustat* database.

We control for several CEO demographics, including *CEO age and CEO gender*, which is a dummy variable coded as 1 for male and 0 for female. *CEO duality* is a dummy variable, coded as 1 when the new CEO is also the chairman of the board in the same year and 0 otherwise. *CEO compensation structure* is measured by the total value of long-term compensation (including restricted stock, stock options and others) divided by the total compensation. Long-term compensation is used to align the interest between the CEO and the shareholders (Brealey et al., 2009: 12; Trahms et al., 2013) and its proportion has effects on the strategic actions taken by the CEO (Carpenter, 2000; Latham & Braun, 2009). *TMT change* is measured by the total number of new executives (excluding the CEO) in each year dividing the size of the TMT (also excluding the CEO), because literature shows its effect on strategic change in the context of CEO succession (Karaevli, 2007; Karaevli & Zajac, 2013; Tushman & Rosenkopf, 1996). The CEO- and TMT-related data are obtained from *Execucomp* database.

*New CEO network size* is controlled in the study of new CEO intra-TMT network. It is measure by the logarithm of the total number of active business elites connected with the CEO before he or she joined the concerned company. It reflects the social capital an individual holds (Carpenter et al., 2012; Jiang, Xia, Devers & Shen, 2020) and may has impact on the strength of

relation between the new CEO and the connected TMT members, because holding a larger network, an individual tends to spend less time on maintaining each relation.

### **Analytical Methods**

Studying the effect of new CEO outsidership on post-succession strategic change (for *H1* and *H2*) over time, we adopt a multiyear approach and get a panel data with 250 observations. We conduct a random-effect generalized least squares (GLS) regression on the panel data with time-invariant independent variable (Chen & Hambrick, 2012; Petersen, 1993). Studying the effect of new CEO intra-TMT network in the year of nomination (for *H3*), we conduct ordinary least squares (OLS) linear regression and focus on the first year of the CEO tenure. We use the variance inflation factor (VIF) to assess the multicollinearity (Mansfield & Helms, 1982), and the results do not lead to concern.

## **RESULTS**

Table 1 presents descriptive statistics and correlations for all variables. Table 2 reports results for our tests for the effects of new CEO outsidership on post-succession strategic change of the companies in turnaround situations. Model 1 includes control variables; Model 2 adds the effects of the independent variable ‘new CEO outsidership’; Model 3 presents the moderating effect of new CEO tenure by adding the interaction between new CEO outsidership and new CEO tenure; and Model 4 shows the three-way interaction including firm prior-year performance. Overall, the Wald chi-square of all the models indicate significant explanatory power.

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Insert Tables 1 and 2 about here  
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In Model 2 of Table 2, the effect of new CEO outsidership on post-succession strategic

change is significant ( $b=-0.57$ ,  $s.e.=0.22$ ,  $p<0.01$ ). The result supports hypothesis 1, which predicts a negative relationship between new CEO outsidersness and post-succession strategic change. In Model 3 of Table 2, the interaction of new CEO outsidersness and new CEO tenure shows a negative and significant relationship with post-succession strategic change ( $b=-0.29$ ,  $s.e.=0.14$ ,  $p<0.05$ ). The result indicates a moderating effect of new CEO tenure on the relationship between new CEO outsidersness and strategic change, as predicted in hypothesis 2. In other words, a new CEO with higher outsidersness tend to make higher degree of strategic change in his or her later tenure than in the earlier tenure. In Figure 3, we can see the results graphically and observe that in tenure 4, new CEOs with higher outsidersness bring higher degree of strategic change than those with lower outsidersness.

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Insert Figure 3 about here  
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In the supplementary analysis, we look at the effect of firm prior-year performance as the succession context. We add the three-way interaction of new CEO outsidersness, new CEO tenure and firm prior-year performance in Model 4 of Table 2. A significant negative relationship is found between the interaction and post-succession strategic change ( $b=-2.75$ ,  $s.e.=1.22$ ,  $p<0.05$ ) while the negative effect of new CEO outsidersness is less significant ( $b=-0.7$ ,  $s.e.=0.37$ ,  $p<0.1$ ) and its interaction with new CEO tenure is not significant ( $b=0.15$ ,  $s.e.=0.16$ ,  $p>0.1$ ). Figure 4 shows the results graphically, where four lines illustrate the relationship between new CEO outsidersness and post-succession strategic change in fours conditions: 1) the new CEO facing good prior-year performance in the late tenure, 2) the new CEO facing poor prior-year performance in the late tenure, 3) the new CEO facing good prior-year performance in the early tenure, and 4) the new CEO facing poor prior-year performance in the early tenure. Comparing line 2 and line 4, we see

that the new outside CEO makes significantly higher degree of strategic change at his or her later tenure than the earlier tenure, when facing a poor firm performance in the prior year. Looking at line 1 and line 2, the difference of the degree of strategic change brought by outsider CEOs and insider CEOs is lower in their later tenure, as shown by much flatter slopes compared to those of line 3 and 4 respectively.

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Insert Figure 4 about here  
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Table 3 reports results for our tests for the effects of new CEO intra-TMT network on post-succession strategic change of the companies in turnaround situations in the year of their nomination.

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Insert Table 3 about here  
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In Table 1, we see the significant and positive correlation between new CEO outsidership and new CEO intra-TMT network, which is in line with the assumption that the new insider CEO tends to have higher centrality in the TMT network. In Model 2 of Table 3, the effect of new CEO intra-TMT network on post-succession strategic change in the year of nomination is significant ( $b=0.41$ ,  $s.e.=0.17$ ,  $p<0.5$ ). The result supports the first part of hypothesis 3, which predicts a positive relationship between new CEO intra-TMT network and post-succession strategic change. However, there is no evidence of the mediating effect of new CEO intra-TMT network between new CEO outsidership and post-succession strategic change, because new CEO intra-TMT network does not show significant effect on post-succession strategic change when new CEO outsidership is also controlled, as shown in Model 3 of Table 3. Thus, hypothesis 3 is only marginally supported.

## DISCUSSION

In this paper, we study the effect of CEO replacement in the turnaround situation; in particular, the relationship between new CEO outsidership, new CEO intra-TMT network, new CEO tenure and post-succession strategic change of the company. Firstly, we examine the relationship between the degree of new CEO outsidership and company's post-succession strategic change concerning resource allocation, expense structure, working capital management and capital structure. We find a significantly negative relationship between new CEO outsidership and post-succession strategic change, which indicates that new CEOs with higher outsidership bring less post-succession strategic change. Secondly, we find a moderating effect of new CEO tenure on the relationship, so that new CEOs with higher outsidership bring more strategic change in their later tenure than their earlier tenure. Moreover, plotting the correlation between new CEO outsidership and post-succession strategic change categorized by new CEO tenure, as shown in Figure 3, we see that the slope is slightly positive in the fourth year of new CEO tenure, which means outsider CEOs bring overall more strategic change to the company than insiders. It implies, though not statistically proven yet, that it may take about four years' learning and adaptation for new outside CEOs in the turnaround companies to have great influence on strategic change. We further find that new inside CEOs bring a similar degree of strategic change in the early and late tenure when facing a poor prior-year performance, while new outside CEOs bring a much higher degree of strategic change in the later tenure than in earlier periods. This is consistent with our finding on the effect of new CEO tenure, indicating the new outside CEO may experience a learning process which enables him or her to bring strategic change with increased familiarity with the company and accumulated network resources over time. We call for future research to study new CEO's learning processes in the turnaround companies, which could provide more insights on how

outsider CEOs learn the company- and industry-related knowledge and build the network and what factors may accelerate the learning process of outsider CEOs.

Thirdly, we find that in the early tenure, lack of social ties with company's incumbent executives hinders the new CEO's post-succession strategic change, and outside successors tend to have fewer intra-TMT connections than insiders. We encourage future research on CEO succession to pay closer attention on new CEO's network position and social capital, and to show whether and how new CEOs could make use of their intra-firm (internal) and external social capital to turn around the company performance.

Turnaround scholars have studied the role of the management team and the effects of CEO replacement in the last few decades, but the debate on whether changing CEO is beneficial or harmful for turnaround is ongoing and empirical evidence shows mixed results. Recent research on the effect of CEO replacement in the turnaround situation attempts to complete the theoretical framework of turnaround literature by incorporating up-to-date theories in the CEO succession research. For example, Chen and Hambrick (2012) study CEO replacement in turnaround situations through adopting the 'fit-drift/shift-refit model' (Finkelstein et al., 2009: 210) and find that CEO replacement improves the turnaround companies' performance when a long-tenured predecessor is replaced by an outside successor (Chen & Hambrick, 2012).

We attempt to resolve the debate by looking at the degree of strategic change instead of performance as outcome factors and by adopting a relational perspective to include the relational network between the new CEO and incumbent executives. Our study responds to Chen and Hambrick (2012)'s call to observe the effect of new CEO characteristics on strategic change, as new CEOs realize their influence on firm performance through making strategic choices and changes (Berns & Klarner, 2017; Hambrick & Mason, 1984). Besides, as suggested by Trahms,

Ndofor and Sirmon (2013), we consider the successor's origin and relational characteristics in our study and adopt an up-to-date measure new CEO outsidership (Karaevli, 2007). Moreover, our paper highlights the promise of studying the interdependency of strategic actions in the turnaround process (Arogyaswamy et al., 1995; Schweizer & Nienhaus, 2017) and the effect of CEO replacement in turnaround research by integrating social capital aspects (Chen & Hambrick, 2012).

Considering the turnaround situation as a specific succession context (Berns & Klarner, 2017), our paper also contributes to the CEO succession literature by studying CEO origin through a continuous measure of outsidership proposed by Karaevli (2007), which has not yet been widely applied to the empirical setting of organizational crisis conditions. To this end, our work highlights the importance of adopting a 'relational perspective' in resolving the various debates in the CEO succession literature.

### **Limitation and future directions**

We acknowledge limitations of our study and expect future research to address the relevant issues. Firstly, our sample consists of 108 CEO replacements in turnaround companies between 1993 and 2015. On the one hand, the sample size is not large enough to consider more control variables or to adopt a more complex analytical model; an extended sample could be studied by including non-S&P 1500 listed companies and private companies in future research. On the other hand, our sample does not focus on any specific industry or time period; although we attempt to eliminate the influence of cross-sectional and time difference by adjusting the measures and including relevant control variables, industry may still play an important role through specific turnaround strategies. In our sample, companies in the oil and gas sector and the software service sector show a higher occurrence of turnaround; thus, future research could focus on certain industries.

Secondly, the composite measure of strategic change (Finkelstein et al., 2009; Karaevli, 2007; Karaevli & Zajac, 2013; Zhang & Rajagopalan, 2010) shows weaknesses when applied in turnaround situations. First, there is considerable missing data on advertising expenses and R&D expenses, because some industries do not generate such expenses, which limits us to include only the other four indicators in the composite measure. A study on a specific industry could help to deal with this concern. Also, in a turnaround situation, some indicators included in the measure may not always be controllable by the top managers. Thus, we call for a more adaptive measure of strategic change for companies in turnaround situations.

Thirdly, we do not observe and distinguish the outcome of the turnaround, although we notice in our sample that, some companies operated as usual, while others delisted, went bankrupt or got taken over a few years after the decline. Pearce and Robbins (1993) summarized three types of outcome: recovery, moderate recovery and liquidation, and Moulton and Thomas (1993) added the partial turnaround success. We may reasonably assume that the companies struggling for a recovery tend to have a different strategy from those planning for liquidation. We suggest that future turnaround research distinguishes the strategic goals of the sample companies and tracks their actions separately.

Last but not least, we observe the post-succession strategic change as an outcome factor of CEO replacement (Berns & Klarner, 2017). Since Zhang and Rajagopalan (2010) found a complex relationship between strategic change and firm performance and Chen and Hambrick (2012) found effects of new CEO characteristics on turnaround outcome (i.e. firm performance), we expect to see future research studying the relationship among new CEO characteristics, new CEO intra-TMT network, post-succession strategic change and turnaround outcomes, in order to further complete the theoretical framework of turnaround literature.

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## TABLES

**Table 1: Descriptive statistics and correlations**

Variables	mean	s.d.	1.	2.	3.	4.	5.
1. Strategic change	-0.01	0.53					
2. New CEO outsidersness	0.78	0.21	-0.09				
3. New CEO tenure	1.96	0.93	-0.03	0.05			
4. Firm decline severity	-0.14	0.34	-0.08	0.04	0.08		
5. Firm prior-year performance	-0.02	0.16	-0.31***	-0.04	0.17**	0.09	
6. Firm size (log)	6.14	1.65	-0.31***	-0.26***	-0.06	0.05	0.31***
7. CEO age	51.95	7.16	0.04	-0.20**	0.05	0.02	0.08
8. CEO gender	0.96	0.20*	0.03	-0.13	-0.01	0.01	0.09
9. CEO duality	0.32	0.47	-0.04	0.08	0.09	0.01	0.10
10. CEO compensation structure	0.54	0.31	-0.06	0.06	0.11	0.22***	0.18**
11. TMT change	0.24	0.23	0.01	0.08	-0.25***	0.06	-0.07
12. New CEO intra-TMT network	0.61	0.40	0.25	0.01**	n.a.	0.26	0.20
13. New CEO network size	5.42	1.70	0.20	0.23	n.a.	0.77	0.38

	6.	7.	8.	9.	10.	11.	12.
7. CEO age	0.12						
8. CEO gender	-0.13*	0.06					
9. CEO duality	0.18**	0.23***	-0.04				
10. CEO compensation structure	0.35***	0.00	0.00	0.11			
11. TMT change	-0.13*	0.03	0.02	-0.21*	0.00		
12. New CEO intra-TMT network	0.03*	0.76	0.54	0.71	0.19	-0.21	
13. New CEO network size	0.03*	0.30	0.20	0.11	0.00***	0.01	0.04***

Notes: The significance of correlations are shown as \* p<0.05; \*\* p<0.01; \*\*\* p<0.001; N=250, except variables 12-13, for which N=83

**Table 2: Effects of new CEO outsidership on post-succession strategic change**

	Model 1	Model 2	Model 3	Model 4
Constant	-0.07 (0.41)	0.75 (0.51)	1.21* (0.55)	0.95+ (0.57)
<i>Control variables</i>				
Firm decline severity	-0.07 (0.13)	-0.06 (0.13)	-0.07 (0.12)	0.02 (0.13)
Firm prior-year performance	-0.82*** (0.21)	-0.80*** (0.21)	-0.78*** (0.21)	-6.66*** (1.90)
Firm size (log)	-0.09** (0.03)	-0.11*** (0.03)	-0.12*** (0.03)	-0.10*** (0.03)
CEO age	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
CEO gender	0.04 (0.23)	-0.05 (0.22)	-0.06 (0.22)	-0.14 (0.23)
CEO duality	0.02 (0.09)	0.06 (0.09)	0.07 (0.09)	0.08 (0.09)
CEO compensation structure	0.09 (0.11)	0.12 (0.11)	0.14 (0.11)	0.08 (0.11)
TMT change	-0.09 (0.13)	-0.07 (0.13)	-0.09 (0.13)	-0.05 (0.13)
<i>Independent variables</i>				
New CEO outsidership		-0.57** (0.22)	-1.10** (0.34)	-0.70+ (0.37)
New CEO tenure			-0.24* (0.12)	-0.13 (0.13)
<i>Moderating effect</i>				
New CEO outsidership × new CEO tenure			0.29* (0.14)	0.15 (0.16)
New CEO outsidership × firm prior-year performance				8.45** (2.47)
New CEO tenure × firm prior-year performance				1.83+ (0.95)
New CEO outsidership × new CEO tenure × firm prior-year performance				-2.75* (1.22)
N	250	250	250	250
Overall R-squared	0.13	0.16	0.17	0.22
Wald chi-square	36.30***	44.61***	49.58***	65.51***

Note: Standard errors in parentheses. +p<0.10, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

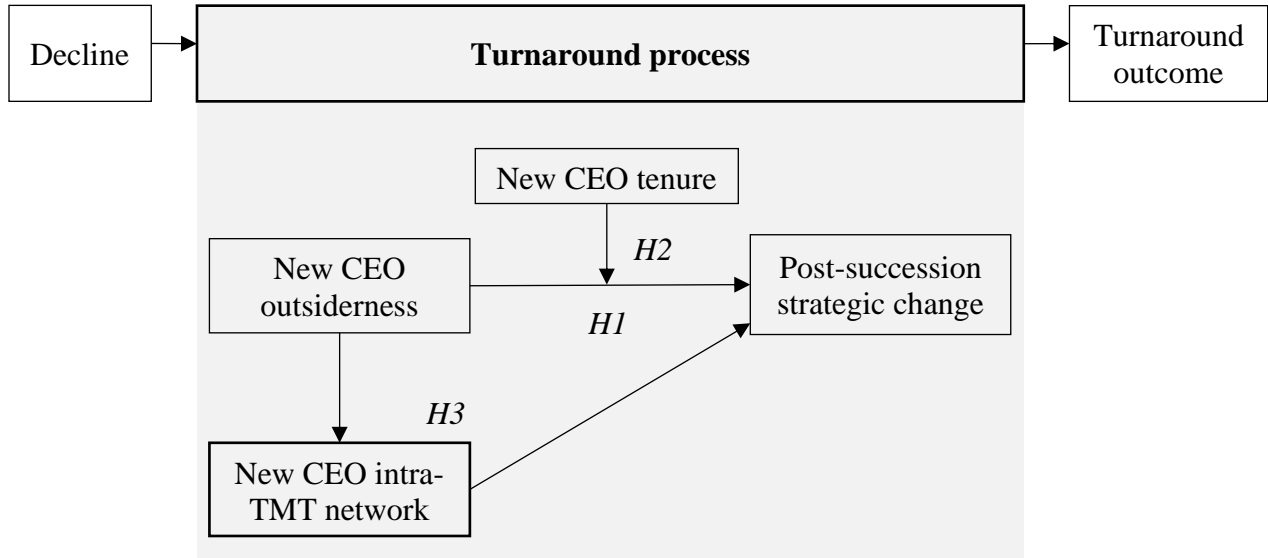
**Table 3: Effects of new CEO intra-TMT network on post-succession strategic change**

	Model 1	Model 2	Model 3
Constant	0.69 (0.67)	-0.33 (0.56)	0.53 (0.68)
<i>Control variables</i>			
Firm decline severity	-0.25 (0.26)	-0.26 (0.26)	-0.29 (0.26)
Firm prior-year performance	-0.55 (0.42)	-0.41 (0.44)	-0.46 (0.29)
Firm size (log)	-0.14** (0.04)	-0.10* (0.04)	-0.14** (0.04)
CEO age	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
CEO gender	-0.02 (0.28)	0.09 (0.28)	0.00 (0.28)
CEO duality	0.28* (0.14)	0.20 (0.14)	0.26+ (0.14)
CEO compensation structure	0.38+ (0.21)	0.33 (0.22)	0.41+ (0.22)
TMT change	0.26 (0.31)	0.43 (0.33)	0.38 (0.32)
New CEO network size		-0.07+ (0.04)	-0.04 (0.04)
<i>Independent variables</i>			
New CEO outsidership	-0.86** (0.29)		-0.65* (0.31)
New CEO intra-TMT network		0.41* (0.17)	0.28 (0.17)
N	83	83	83
Overall R-squared	0.26	0.24	0.29
F-statistic	2.82**	2.29*	2.58**

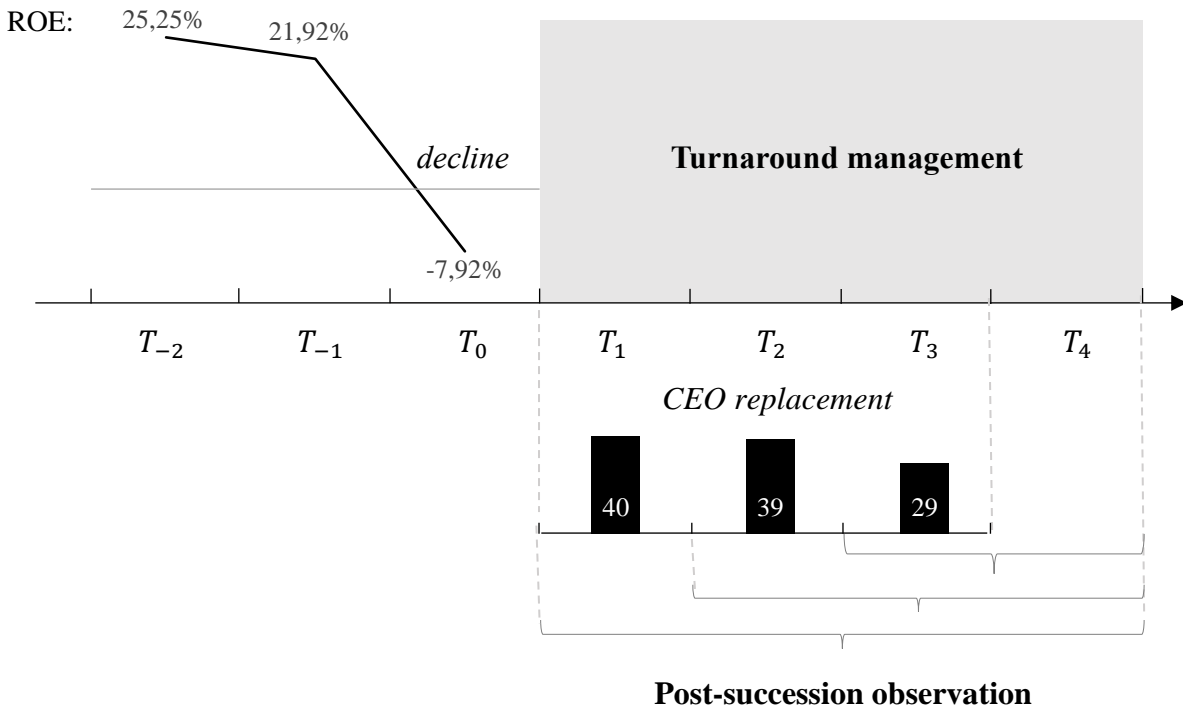
Note: Standard errors in parentheses. +p<0.10, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

## FIGURES

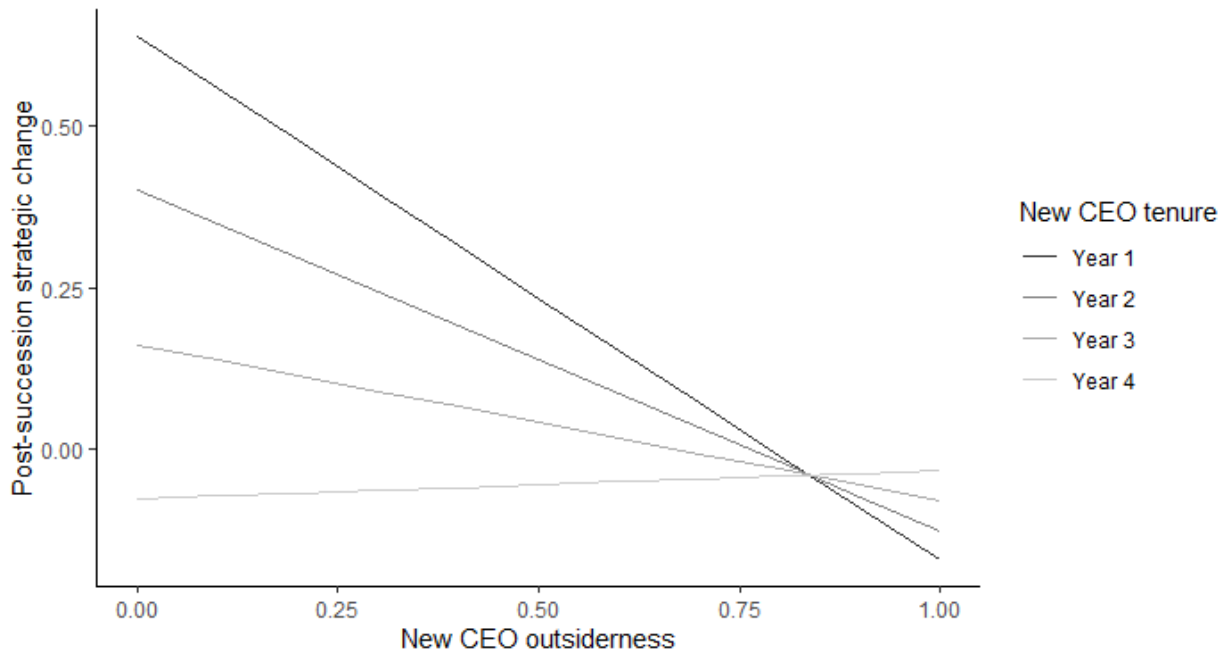
**Figure 1: Research framework of CEO replacement in the turnaround situation**



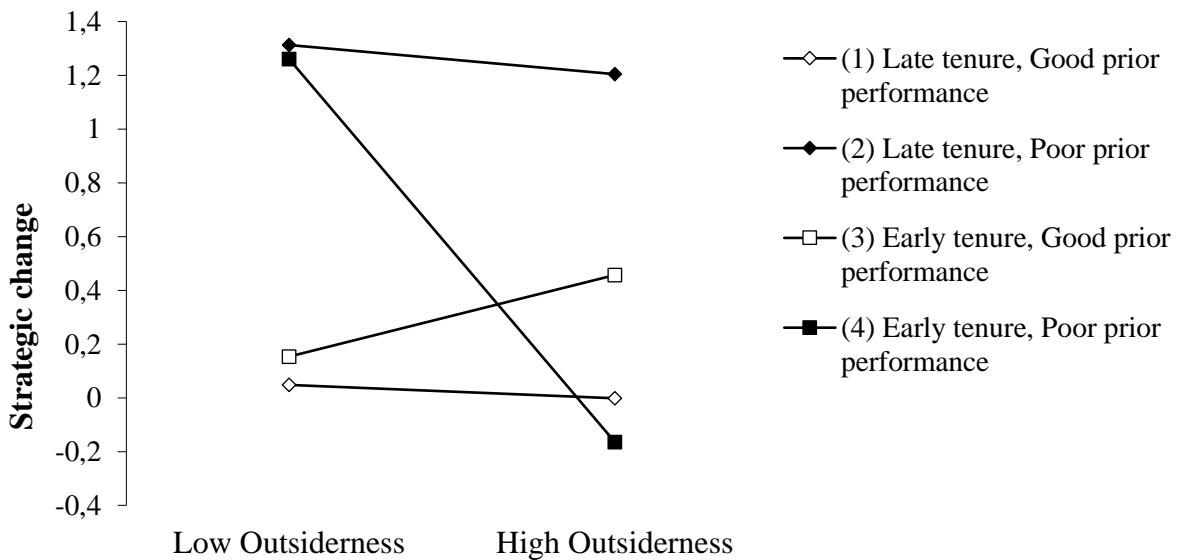
**Figure 2: Time reference of turnaround management and CEO replacement**



**Figure 3: Relationship between new CEO outsidership and post-succession strategic change in different new CEO tenure**



**Figure 4: Relationship between new CEO outsidership and post-succession strategic change in different new CEO tenure and firm prior-year performance**



## APPENDIX

**Table A1: Robustness test – Effects of new CEO origin on post-succession strategic change**

	Model 1	Model 2	Model 3	Model 4
Constant	-0.07 (0.41)	0.75 (0.51)	0.15 (0.41)	0.38 (0.44)
<i>Control variables</i>				
Firm decline severity	-0.07 (0.13)	-0.06 (0.13)	-0.05 (0.13)	-0.05 (0.13)
Firm prior-year performance	-0.82*** (0.21)	-0.80*** (0.21)	-0.80*** (0.21)	-0.79*** (0.21)
Firm size	-0.09** (0.03)	-0.11*** (0.03)	-0.11*** (0.03)	-0.11*** (0.03)
CEO age	0.01 (0.01)	0.01 (0.01)	0.01+ (0.01)	0.01 (0.01)
CEO gender	0.04 (0.23)	-0.05 (0.22)	-0.03 (0.22)	-0.01 (0.22)
CEO duality	0.02 (0.09)	0.06 (0.09)	0.04 (0.09)	0.05 (0.09)
CEO compensation structure	0.09 (0.11)	0.12 (0.11)	0.11 (0.11)	0.11 (0.11)
TMT change	-0.09 (0.13)	-0.07 (0.13)	-0.06 (0.13)	-0.06 (0.13)
<i>Independent variables</i>				
New CEO outsidership		-0.57** (0.22)		
Alternative 1: dichotomous measure of new CEO origin			-0.23** (0.09)	
Alternative 2: eight-point scale of new CEO outsidership				-0.06* (0.02)
N	250	250	250	250
Overall R-squared	0.13	0.16	0.16	0.16
Wald chi-square	36.30***	44.61***	44.74***	44.12***
Note: Standard errors in parentheses. +p<0.10, *p<0.05, **p<0.01, ***p<0.001.				