Women on Top Management Teams and Firm Performance in German Medium-Sized Enterprises: The Moderating Role of Recruiting Source

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ABSTRACT

Despite substantial research, evidence regarding the relationship between the proportion of women on top management teams (TMTs) and firm performance is still inconclusive. Building on upper echelons theory, this paper expands the discussion of potential moderating effects in this regard by applying a complementary perspective to the commonly studied organization-oriented factors. Applying a person-oriented perspective to the composition of TMTs, this study argues that the recruiting source of TMT members – whether members were recruited from the owner’s family, from the internal job market or the external job market – leads to differences in the job-relevant characteristics of TMT members. Consequently, the recruiting source should moderate the relationship between TMT gender composition and performance. Our analysis of 1025 German medium-sized enterprises (MEs) shows that there is no main effect of the proportion of women on firm performance. However, recruiting from the owner’s family and the internal labor market have a significant negative moderating influence on the relationship between the proportion of women on TMTs and firm performance. Conversely, hiring externally exerts a significant positive effect.

Keywords: top management team; gender; proportion of women; performance; person-oriented moderators; recruiting

JEL Classification: J16, L25, M12, M14
1 INTRODUCTION

In recent years, workforces have become increasingly diverse, from lower skilled employees to the top management teams (TMTs) of organizations (Miller & Triana, 2009). Although diversity has increased with regard to a variety of individual characteristics (e.g., age, education, etc.), gender diversity has become a particularly important political issue, resulting in parties expressing political will or even putting regulatory pressures on organizations to increase the number of women in leading positions (Miller & Triana, 2009). Consequently, there is growing interest in the consequences of the gender shift in TMT composition (Bao, Fainshmidt, Nair, & Vracheva, 2014; Eagly, 2007; Mensi-Klarbach, 2014), particularly in terms of organizational effectiveness (Boone & Hendriks, 2009; Dwyer, Richard, & Chadwick, 2003; Krishnan & Park, 2005; Smith, Smith, & Verner, 2006).

Although many studies have examined how the proportion of women on TMTs affects firm performance, the results remain inconclusive. While some studies have found positive effects (Carter, Simkins, & Simpson, 2003; Perryman, Fernando, & Tripathy, 2016; Smith et al., 2006), others have found either no effect (Dwyer et al., 2003; Richard, Kirby, & Chadwick, 2013), or negative effects (Lee & James, 2007). Hence, researchers have refined their analysis by considering potential moderating variables such as the supportiveness of the organizational culture (Richard et al., 2013) or the company’s strategic focus on growth (Dwyer et al., 2003) and innovation (Dezsö & Ross, 2012; Østergaard, Timmermans, & Kristinsson, 2011). In regard to the organizational environment, authors have also found that an increased proportion of women on TMTs exerts a positive effect in highly complex and rapidly changing business environments (Francoeur, Labelle, & Sinclair-Desgagné, 2008).

The analysis of such organization-oriented moderators is an important contribution to research on the effects of TMT gender composition. However, this approach implies that women form a homogeneous group and does not allow for individual differences within this group. More person-oriented moderators might therefore complement previous studies by permitting a closer examination of these individual differences. Rather than focusing on whether women in general should be part of the TMT, a person-oriented approach analyses whether the most suitable woman enters the TMT (Mensi-Klarbach, 2014). In this regard, researchers have discussed the importance of the recruiting source as an essential person-
oriented moderator that determines whether the proportion of women on TMTs will lead to positive firm performance (Ip & Jacobs, 2006). Female TMT members can either be recruited from the owner’s family, from lower management levels or from the external labor market (Carpenter, Geletkancz, & Sanders, 2004). We argue that the differences in the recruiting source moderate the relationship between the proportion of women on TMTs and firm performance. As non-family-oriented recruiting is more strongly based on performance-relevant factors (e.g., prior experience and job performance) than family-oriented recruiting (Ip & Jacobs, 2006; Smith et al., 2006), TMTs consisting of internally or externally recruited women should work more effectively and, thus, foster firm performance.

The present study draws on upper echelons theory (Hambrick & Mason, 1984) to explain the moderating effect of recruiting sources on the relationship between the proportion of women on TMTs and firm performance. Whereas past research almost exclusively focused on large, publicly held companies, we focus on the specific context of medium-sized enterprises (MEs) and argue that the effect of the proportion of women should be most evident in MEs. Small companies have a less hierarchical as well as a more “family-friendly” organizational culture (Cakar & Ertürk, 2010), making it difficult to identify a distinct TMT within a company of fewer than 50 employees. In contrast, larger companies are subject to a high level of organizational and environmental complexity (Ling, Simsek, Lubatkin, & Veiga, 2008). The gender composition of TMTs, strategic decision-making, and resulting performance are potentially influenced by various stakeholders, such as a firm’s board of directors. Large firms are also subject to the preferences of their shareholders (Ling et al., 2008) and public interest groups.

We contribute to research on both TMTs and gender diversity by presenting a complementary approach to organization-oriented moderator analysis. A person-oriented approach confronts the (often) implicit assumption that women form a homogenous group and acknowledges differences among women. Thus, focusing on the competencies of the members of the TMT, a person-oriented analysis adds to our understanding of TMT effectiveness beyond the role of the organizational context.
2 TMT GENDER COMPOSITION AND FIRM PERFORMANCE: THEORETICAL BACKGROUND AND HYPOTHESES

Due to the increasing participation of women in the labor market, the number of female employees in the workforce is constantly increasing (Dezsö & Ross, 2012). This shift affects the gender composition of workforces all the way up to TMTs. As TMTs are highly influential for the success of a firm, the relationship between TMT gender composition and firm performance has attracted significant attention from practitioners and researchers alike (Carpenter et al., 2004; Certo, Lester, Dalton, & Dalton, 2006; Krishnan & Park, 2005; Nielsen, 2010).

According to upper echelons theory (Hambrick & Mason, 1984), executive team members play an essential role in firm performance because they are responsible for major strategic decisions. Both their psychological (e.g., job experience) and demographic (e.g., gender, age) characteristics influence how top executives perceive a firm’s current strategy, how they evaluate future strategic orientation, and how they weigh all matters of strategy (Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984; Hambrick, 2005). As women and men differ in their socialization, employment histories, and overall life experiences, both gender groups differ in important deep-level characteristics, such as values, beliefs, and job-relevant knowledge (Carpenter et al., 2004).

Due to the scarcity of women on TMTs, teams become more diverse when women join a TMT (Dezsö & Ross, 2012). With regard to the effects of gender diversity on firm performance, scholars have argued that gender diversity can trigger both detrimental as well as beneficial processes (Smith et al., 2006), and it has thus become a “double-edged sword” (Milliken & Martins, 1996).

On the one hand, gender differences might cause a categorization process that might result in intergroup biases and impede task elaboration (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Wegge, Roth, Neubach, Schmidt, & Kanfer, 2008). Consistent with the social categorization perspective (Tajfel & Turner, 1979; Turner et al., 1987), individuals classify themselves and others into subgroups based on similarities and differences and, as a consequence, form in-groups and out-groups (Turner et al., 1987; van Knippenberg et al., 2004). This categorization process can lead to intergroup biases when team members favor their in-group and discriminate against the out-group (van
Gender is one of the most visible and salient attributes of diversity (Richard et al., 2013) and can thus further facilitate intergroup biases (Randel, 2002; Schneid, Isidor, Li, & Kast, 2014). Given a prejudiced and polarized working environment, women might feel reluctant to share their opinions out of fear that their teams will not be supportive of their ideas (Lubatkin, Simsek, Ling, & Veiga, 2006). Therefore, TMTs with diverse gender composition are likely to struggle with reduced communication and diminished information exchange, leading to prolonged and less-efficient decision-making routines (Carpenter, 2002; Certo et al., 2006).

On the other hand, the information processing perspective suggests that gender diversity within TMTs should enlarge the team’s range of competencies, perspectives on problems, and approaches, thus enhancing firm performance (Ferreira, 2010). In the same manner, these task-relevant differences should foster creative discussions (Bantel & Jackson, 1989), trigger task-related conflicts, and prevent TMTs from groupthink traps that often occur in homogeneous teams (Certo et al., 2006).

Empirical evidence regarding the overall effectiveness of diverse TMT gender composition is also contradictory. Some studies show a positive relationship between the proportion of women and firm performance (Carter et al., 2003; Perryman et al., 2016), whereas others find a negative relationship (Lee & James, 2007), or no relationship at all (Dwyer et al., 2003; Richard et al., 2013). Due to these inconsistent findings, van Knippenberg and Schippers (2007) declared the “bankruptcy of the main effects approach” and suggested a re-orientation towards more complex research models. Thus, scholars have increasingly discussed the potential role of moderators (Certo et al., 2006).

2.1 The Role of Organization-Oriented Moderators

Past research has focused mainly on organization-oriented moderators, such as a company’s strategic focus or organizational culture. With regard to organizational culture, Dwyer et al. (2003) show that the presence of women on TMTs correlates with positive performance in firms that advocate teamwork, participation, and cohesiveness. Findings by Richard et al. (2013) indicate that a participative atmosphere increases the positive effects of having women on TMTs. In contrast, a lack of participative decision-making is related to a negative effect on firm performance (Richard et al., 2013).
On the subject of strategic focus, Dezsö and Ross (2012) have demonstrated that TMT gender composition affects performance to a greater degree in innovation-oriented firms. Furthermore, women on TMTs are likely to have a positive effect on firm performance if the company’s strategy prioritizes growth (Dwyer et al., 2003) through either geographic expansion or merger and acquisition. In contrast, women tend to have a detrimental effect on firm performance if a company’s strategy focuses on downsizing. In regard to the external organization-oriented context, Francoeur et al. (2008) have shown that a growing proportion of women on TMTs exerts a positive effect in highly challenging and dynamic environments.

Nonetheless, despite the valuable insights of research focusing on organization-oriented moderators, it can be fruitful to analyze the effects of women on TMTs from various angles (Nielsen, 2010).

### 2.2 The Role of Person-Oriented Moderators

Based on upper echelons theory (Hambrick & Mason, 1984), a more person-oriented approach serves to acknowledge the important role of TMT members’ capabilities and helps us to understand those cases in which an increasing proportion of women produces a positive or a negative effect (Hambrick, Cho, & Chen, 1996). With regard to the qualifications of female TMT members, Smith et al. (2006) found that female managers exert a stronger effect on firm performance when they hold a university degree. However, in addition to academic education, previous working experience is essential for effective performance on TMTs (Ohlott, Ruderman, & McCauley, 1994).

The present paper builds on the argument that the recruiting source of TMT members – whether they were recruited from the owner’s family, from the internal labor market or external labor market – plays an essential role in the effect of TMT gender composition (Carpenter et al., 2004; Ip & Jacobs, 2006). The different recruiting sources differ in their selection criteria, their pools of appropriate applicants, and the rigidity of their recruiting methods and evaluation standards (Bigley & Wiersema, 2002; Ip & Jacobs, 2006). Therefore, depending on the source they were recruited from, TMT members have different types of job experience, knowledge, and skills. Recruiting sources thus can be regarded as a viable proxy for the qualifications of male and female TMT members and are likely to have a significant effect on the strategic development and organizational performance of a company. As recruiting sources are not mutually exclusive and firms can use different
sources at the same time, we argue that the use of a specific source while controlling for the other sources should moderate the relationship between diverse TMT gender composition and firm performance. In particular, we predict that recruiting from the owner’s family should reduce the effectiveness of gender diverse TMTs, whereas the use of internal and external sources should enhance it. Figure 1 provides an overview of our research model.

Figure 1: Theoretical Model

Recruiting from the owner’s family might reduce the relationship between the proportion of women on TMTs and firm performance. Family-owned companies are likely to recruit TMT members from the owner’s family (Smith et al., 2006). Due to the limited pool of candidates associated with this recruitment strategy, careful succession planning and training of successors is essential to improving business skills and the success of generational succession (Sambrook, 2005). However, despite their increased involvement in the TMTs of family businesses, female family members often lack vital leadership training (Dumas, 1990). On the one hand, women receive less training because they enter the family business for reasons other than to join the TMT (Henry, Erwee, & Kong, 2013; Vera & Dean, 2005). Female relatives often join family firms either to provide short-term support in times of crisis (Haberman & Danes, 2007; Martinez Jimenez, 2009) or to benefit from working on a flexible schedule and in a secure job environment (Martinez Jimenez, 2009). On the other hand, female relatives might also lack essential training because they are not considered viable successors for executive positions (Keating & Little, 1997; Stavrou, 1999). Although
women have successfully entered higher education and gained more managerial experience, many executives still prefer to promote male over female relatives (Stavrou, 1999; Vera & Dean, 2005).

Until now, there has been little empirical evidence on the role of women in family businesses (Martinez Jimenez, 2009). Some studies (e.g., Cole, 1997; Salganicoff, 1990; Vera & Dean, 2005) confirm that women seldom plan to run the business in the first place and that women’s professional capabilities and achievements remain invisible to non-family colleagues. Hence, drawing on both theory and empirical evidence, we hypothesize as follows:

**Hypothesis 1:** Recruiting from the owner’s family reduces the relationship between the proportion of women on TMTs and firm performance.

Recruiting from the internal labor market might enhance the relationship between the proportion of women on TMTs and firm performance. The internal labor market consists of suitably skilled professionals at lower management levels. Women who climb the corporate ladder within a single company become highly capable (Eagly, 2007) and persistent (Krishnan & Park, 2005) TMT members. However, despite an internal pool of talented female candidates, women are seldom appointed to positions in the executive ranks (Sambrook, 2005). This vertical gender segregation occurs regardless of the qualifications of female employees and is commonly known as the “glass ceiling” (Cotter, Hermsen, Ovadia, & Vanneman, 2001). Women are confronted with more barriers than men. First, women receive fewer promotions - even when controlling for performance ratings (Cannings & Montmarquette, 1991; Elliott & Smith, 2004; Rose, 2017). Second, female managers receive either less performance-based feedback or face greater scrutiny in regard to performance evaluation. Third, they are rarely included in career development programs (Hill, Upadhyay, & Beekun, 2015; Oakley, 2000) and have less access to developmental job positions (Ohlott et al., 1994). Having faced and overcome these challenges by working harder to succeed, female executives are equipped not only with highly job-relevant qualifications but also with unique survival skills (Krishnan & Park, 2005), which eventually turn them into more effective and qualified leaders than their male counterparts (Eagly, 2007). Therefore, we hypothesize:
Hypothesis 2: Recruiting from the internal labor market positively moderates the relationship between the proportion of women on TMTs and firm performance.

Recruiting from the external labor market might also enhance the relationship between the proportion of women on TMTs and firm performance. As with internally promoted women, externally recruited women also face obstacles while climbing the corporate ladder. However, work experience gained outside the company conveys further advantages. Both male and female TMT candidates are prepared for a wider range of problems and develop an independent identity in the business world, which augments their individual abilities (Brockhaus, 2004). Executives’ external ties, such as relationships with external entities and networks, enhance their understanding of inter-organizational relations, external contingencies, and their consequences for the firm (Geletkánycz & Hambrick, 1997). However, for women, this external experience is even more important than for their male counterparts. External business experience provides women with the self-confidence needed to succeed at the executive level. It not only enhances their self-belief but also their credibility with employees (Vera & Dean, 2005). Therefore, we hypothesize as follows:

Hypothesis 3: Recruiting from the external labor market positively moderates the relationship between the proportion of women on TMTs and firm performance.
3 METHODS

3.1 Sample

To test our hypotheses, we use a representative sample of medium-sized German companies. Owing to the omnipresence and economic importance of SMEs for the German economy, Germany represents a suitable country for the present study. In 2012, 3.65 million SMEs employed 59.4% of all individuals subject to social insurance contributions and supplied about 56.5% of total net value added in Germany (Institut für Mittelstandsforshung, 2014).

Especially medium-sized enterprises (MEs) offer an appropriate organizational setting for analyzing the impact of recruiting source on the relationship between TMT gender composition and firm performance. Both small startups and large companies have inherent distorting organizational influences (Smith et al., 2006). A crucial drawback of the analysis of large companies is that organizational size goes hand-in-hand with increased organizational complexity, making large companies subject to distorting effects in various ways (Ling et al., 2008). First, top executives have less managerial discretion and, as a result, a smaller effect on the firm’s performance (Finkelstein & Boyd, 1998). Second, the strategic decisions of TMTs are constrained by many stakeholders (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006). Large firms must answer to a board of directors and to the preferences of shareholders (Ling et al., 2008). They also must justify their gender quotas according to Corporate Governance Codes or abide by legislative gender quotas. In addition, the exclusion of small companies is also important. Small companies differ significantly in their management and HR practices; they are less unionized (Rodwell & Shadur, 1997), less hierarchical in structure, and have a more “family-friendly” organizational culture than larger companies (Cakar & Ertürk, 2010). Hence, by focusing our moderating analysis on the specific population of medium-sized companies, we hope to alleviate potential distorting organizational effects.

The sample was selected within the research project “Women and Men at the Top: Leadership in German Medium-Sized Companies” conducted by the German Mittelstandsbank Commerzbank. Initiated within the framework of their “Unternehmerperspektiven” research series, the project aims to shed light on the leadership style and composition of TMTs in small- and medium-sized enterprises (SMEs), with a particular focus on women. One of the authors is a member of the steering committee of this
research project and was involved in the development of the measurement instrument, ensuring the scientific value of the selected items. The autonomous research agency TNS Infratest conducted the survey between November 2010 and January 2011. The companies questioned were randomly selected from company directories. The only inclusion criterion for the sample was a minimum yearly turnover of 2.5 million Euros. Since data on SMEs are generally hard to come by, it is common practice in SME research to contact the owner or CEO of the company directly. Past research underlines that CEOs or owners are well-informed, particularly regarding their firm’s and the market’s performance (Ling et al., 2008; Zapkau, Schwens, & Kabst, 2014). In total, 4,000 CEOs and owners of SMEs answered questions through computer-assisted telephone interviews (CATI). The major advantage of telephone interviews over mail questionnaires is that the interviewer can ascertain the participants’ actual knowledge of the provided answers (Fraser, Greene, & Mole, 2007).

Two additional inclusion criteria were applied to the sample. First, as we focus on MEs, only companies with staff sizes ranging between 50 and 250 employees and turnovers smaller than 50 million Euros were included (European Commission, 2009). Second, only TMTs with more than one and fewer than 25 members were included in this study. On the one hand, this ensures that not a single person but rather an actual team is leading the company (Hill et al., 2014; Williams, 2010). On the other hand, the limit of 25 ensures that group members cooperate frequently and belong to the same social entity (Schneid, Isidor, Li, et al., 2014; van Dijk, van Engen, & van Knippenberg, 2012). Having screened the sample for the above-mentioned inclusion criteria, the present study was left with 1,025 observations.

### 3.2 Measures

*Proportion of women.* Consistent with past research, we take the proportion of women on the TMT as our focal variable (Carter et al., 2003; Ellwood & Garcia-Lacalle, 2015; Krishnan & Park, 2005). The variable could range between 0 and 1.

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1 Since the entrepreneurship literature lacks a generally accepted definition of MEs (Buckley, 1989), we follow the definition of “medium-sized” formulated by the European Commission (2009).

2 In this context, the point/counterpoint discussion between Williams (2010) and Moreland (2010) provides greater detail with regard to considering dyads as teams.
Recruiting source. To measure the recruiting source, the respondents were asked to indicate whether they used the owner’s family, lower level managers from the same company, and/or managers from external companies as recruiting sources. Responses could be either “yes” (coded with 1) if the company used the respective source or “no” (coded with 0).

Firm performance. The respondents were asked to assess the company’s current business situation relative to their same sector peers. Responses were on a five-point rating scale (1 = “performance is significantly worse than same sector peers”, 5 = “performance is significantly better than same sector peers”).

Control variables. We included three control variables that are likely to influence firm performance: the gender of the respondent, the size of the TMT, and the industry. The gender of the respondent was coded either 0 = “male” or 1 = “female”. In regard to self-ratings, men are likely to rate themselves as significantly more effective than women (Paustian-Underdahl, Walker, & Woehr, 2014). On the TMT level, this might also affect the way that women and men rate the achievement of the TMT. We also considered the size of the TMT. Definitions of TMT composition vary considerably in TMT research. Our identification of the TMT’s size followed Finkelstein and Hambrick (1996), where the number of total executives in leading positions was directly identified by the CEO (Carpenter et al., 2004). Larger teams are associated with both increased communication and information processing, thus exerting a positive effect on performance (Carpenter & Fredrickson, 2001; Certo et al., 2006). In addition, we considered the strategic context of the company by including the industry in our analysis. Inter-industry differences in munificence, dynamism, and complexity are likely to influence firm performance (Dess & Beard, 1984; Krishnan & Park, 2005). Therefore, the companies were classified, according to the statistical classification of economic activities in the European Community (NACE), into one of the following industries: service, retail, wholesale agriculture, or manufacturing.
4 RESULTS

4.1 Descriptive Statistics

Table 1 shows the means, standard deviations, and correlations of the model variables. The average proportion of women at the TMT level was 20%. Of the 1,025 companies, 517 (50.4%) did not have women on their TMTs, 508 (49.6%) companies had at least one woman on the TMT. The average team size was 3.6 members (SD = 2.4). The majority of the firms surveyed, 459 (44.8%), are family-owned, 245 are (23.9%) owner-managed, and 308 (30.1%) are led by external managers. Furthermore, 250 companies (24.4%) recruited their TMT members from the owner’s family, 891 (86.9%) used the internal labor market, and 775 (75.6%) used the external labor market. There were 162 (15.8%) companies that had used all three recruiting sources. Companies recruiting from the owner’s family had TMTs with a mean proportion of women of 23.8%, followed by companies drawing on the internal labor market (20.1%), and companies recruiting externally (19.4%). Thus, family-owned firms tend to employ more women on TMTs than other MEs.

4.2 Methodological Approach

To test our hypotheses, we used hierarchical regression analysis. With respect to the moderators, we compared alternative models with and without a product term and relied on the change in model fit to evaluate the viability of the hypothesis (Aiken & West, 1991). Table 2 displays the results. The table presents five models, each containing an additional set of variables. Model 1 contains the control variables, the gender composition and the recruiting sources. We then included the three product terms successively (models 2 to 4) to avoid reduction of power due to the inherent multicollinearity. Model 5 contains all variables.
Table 1: Descriptive Statistics of the Model Variables

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</tbody>
</table>

Notes: N = 1,025; † p < .1; * p < .05; ** p < .01; *** p < .001
Table 2: Results of the Hierarchical Regression Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control Variables</th>
<th>Main Explanatory Variable</th>
<th>Recruiting Source</th>
<th>Moderating Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
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<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
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<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
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<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
</tr>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 3</td>
<td>Model 4</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender of Respondent</td>
<td>0.02 (0.08)</td>
<td>0.02 (0.08)</td>
<td>0.02 (0.08)</td>
<td>0.02 (0.08)</td>
</tr>
<tr>
<td>Teamsize</td>
<td>0.02* (0.01)</td>
<td>0.02* (0.01)</td>
<td>0.02* (0.01)</td>
<td>0.02* (0.01)</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>0.02 (0.11)</td>
<td>0.01 (0.11)</td>
<td>0.04 (0.11)</td>
<td>0.03 (0.11)</td>
</tr>
<tr>
<td>Retail</td>
<td>0.15 (0.13)</td>
<td>0.14 (0.13)</td>
<td>0.16 (0.13)</td>
<td>0.14 (0.13)</td>
</tr>
<tr>
<td>Wholesale</td>
<td>0.05 (0.11)</td>
<td>0.04 (0.11)</td>
<td>0.06 (0.11)</td>
<td>0.05 (0.11)</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.12 (0.28)</td>
<td>0.09 (0.27)</td>
<td>0.16 (0.27)</td>
<td>0.09 (0.29)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-0.05 (0.11)</td>
<td>-0.06 (0.01)</td>
<td>-0.04 (0.11)</td>
<td>-0.04 (0.11)</td>
</tr>
<tr>
<td>Main Explanatory Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of Women (TMT)</td>
<td>-0.30* (0.12)</td>
<td>-0.16 (0.14)</td>
<td>0.14 (0.28)</td>
<td>-0.74*** (0.21)</td>
</tr>
<tr>
<td>Recruiting Source</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner Family</td>
<td>0.07 (0.06)</td>
<td>0.18* (0.07)</td>
<td>0.07 (0.06)</td>
<td>0.08 (0.06)</td>
</tr>
<tr>
<td>Internal Labor Market</td>
<td>0.12 (0.07)</td>
<td>0.12† (0.07)</td>
<td>0.22* (0.10)</td>
<td>0.12 (0.07)</td>
</tr>
<tr>
<td>External Labor Market</td>
<td>0.07 (0.06)</td>
<td>0.07 (0.06)</td>
<td>0.07 (0.06)</td>
<td>-0.06 (0.08)</td>
</tr>
<tr>
<td>Moderating Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Women x Owner Family</td>
<td>-0.53* (0.21)</td>
<td></td>
<td></td>
<td>-0.43* (0.21)</td>
</tr>
<tr>
<td>% Women x Int. Labor Market</td>
<td>-0.52† (0.29)</td>
<td></td>
<td></td>
<td>-0.51† (0.28)</td>
</tr>
<tr>
<td>% Women x Ext. Labor Market</td>
<td></td>
<td></td>
<td></td>
<td>0.60** (0.22)</td>
</tr>
<tr>
<td>Constant</td>
<td>3.27*** (0.13)</td>
<td>3.26*** (0.13)</td>
<td>3.17*** (0.14)</td>
<td>3.37*** (0.13)</td>
</tr>
<tr>
<td>Observations</td>
<td>1,025</td>
<td>1,025</td>
<td>1,025</td>
<td>1,025</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.023</td>
<td>0.028</td>
<td>0.026</td>
<td>0.030</td>
</tr>
<tr>
<td>Δ R-squared (vs. Model 3)</td>
<td>-</td>
<td>0.005*</td>
<td>0.003†</td>
<td>0.007**</td>
</tr>
</tbody>
</table>

Notes: Robust standard errors in parentheses; reference industry = construction; N = 1,025; † p < .1; * p < .05; ** p < .01; *** p < .001
4.3 Test of the Hypotheses

As the results of model 2 and figure 2 show, the significant negative interaction term indicates that recruiting from the owner’s family leads to a negative relationship between proportion of women and performance, thus confirming H1 (b = -0.53, p < 0.05). Furthermore, the previously significant negative effect of women on TMTs disappears, meaning that women per se do not exert a negative effect on the firm’s relative performance.

In model 3, we tested the moderating influence of recruiting from the internal labor market. Again, the first order effect of the proportion of women is not significant. However, in contrast to our hypothesis, recruiting from the internal labor market also reduced the relationship between the proportion of women and performance (b = -0.52, p < 0.10). Hence, although internal promotion, in general, has a positive effect on firm performance, internally promoted women exert a negative influence on firm performance. Therefore, we have to reject hypothesis 2. Figure 3 depicts the effect of the interaction term of recruiting internally and the proportion of women on TMTs.
In model 4, we added the external labor market into our regression as a moderator. The results (see figure 4) show that external recruiting enhances the effect of the proportion of women (\(b = .56, p < .01\)), confirming H3. The first order effect of the proportion of women has a highly significant negative effect on relative firm performance (\(b = -0.74, p < 0.001\)). Model 5 is the final model and contains all three interaction terms in one regression.
5 DISCUSSION

5.1 Theoretical Implications

The focus of this paper is the relationship between the proportion of women on TMTs and firm performance. In this regard, we argued for the importance of considering person-oriented moderators in addition to traditional organization-based context factors (e.g., culture, strategy). As an example of person-oriented moderators, the present study tested the role of the recruiting source of TMT members. The results show that there is no main effect of the proportion of women on firm performance but that the effect depends on three relevant recruiting sources (i.e., recruiting from the owner’s family, the internal labor market, and the external labor market). As hypothesized, recruiting from the owner’s family reduces the relationship between the proportion of women and firm performance, leading to a negative relationship for firms with owner-recruited women. In contrast to our hypothesis, the same result occurred with regard to recruiting from the internal labor market, resulting in a negative relationship for internally recruited women. Finally, recruiting from the external labor market enhances the relationship as expected.

With regard to a more person-oriented approach, this paper has theoretical implications for the role of gender diversity on TMTs. Given the lack of empirical evidence for the main effect of gender diversity on firm performance, past researchers have called for more sophisticated research models (van Knippenberg & Schippers, 2007). One explanation for the lack of empirical evidence is that the proposed benefits and drawbacks of the proportion of women – that is synergies in information versus process losses due to categorization processes – offset one another. Consequently, the traditional perspective of information processing as well as the social identity theory are still valid. This interpretation is supported by the role of the diverse recruiting sources. As argued, recruiting sources differ in the competences that their successful applicants provide. The relationship between gender composition and performance turns negative when social categorization processes exceed gains in information resources. This is the case for owner-family based recruiting and internal recruiting, as respective candidates might lack training and job experience. In contrast, information gains and categorization processes balance each other when recruiting sources provide more competent TMT members.
The negative influence of family-recruited women on information processes might stem from several causes. First, female relatives are less prepared for management positions. They are still confronted with prejudices triggered by the perceived incongruity between the traditional female gender role and the leadership role (Eagly & Karau, 2002). This incongruity might be especially true for female successors within a family-owned company. “Daddy’s little girl” is often not considered a businesswoman and is therefore not perceived as a viable successor (Dumas, 1990; Stavrou, 1999; Vera & Dean, 2005). Women are less visible with regard to promotion and receive either less feedback or face more criticism during performance evaluations. As a result, companies seldom consider women when selecting candidates for managerial training (Dumas, 1990).

External experience, however, has a positive effect on information processes within the TMT and is, thus, the most important qualification for female TMT successors. Female executives who face challenges on their way to the top are equipped with essential professional skills, with persistence, (Krishnan & Park, 2005) and – in case of externally recruited female executives – with the necessary self-confidence. External business experience increases women’s self-belief as well as their credibility with their employees (Vera & Dean, 2005). Moreover, this increase in self-confidence turns them into more effective and qualified leaders than their male counterparts (Eagly, 2007).

Most surprisingly, internally promoted women exert a negative effect on firm performance. There are several explanations why internally promoted women might not enhance information processing within TMTs. It is likely that women are less prepared for TMT positions than their male counterparts because they have received less training or have occupied fewer developmental line positions. Additionally, internally promoted women may either lack the self-confidence to share divergent ideas with their male colleagues on the TMT, or their opinions are not valued enough to be considered by their peers. In summary, these potential gaps in knowledge, experience, self-confidence and legitimacy underscore the importance of women’s external business experience if they are to work effectively on TMTs.

5.2 Practical Implications

Our results also have practical implications that need to be addressed on the organizational as well as on the environmental level. On the organizational level, companies need to realize that women are confronted with more barriers on their way to the top and that gender per se
does not affect firm performance negatively (Elliott & Smith, 2004). The latter is particularly important for family firms. Based on these results, it should not be concluded that family firms should refrain from hiring female relatives. As argued above, it is not the daughter per se but the circumstances of her ascension to the TMT that might negatively affect firm performance. If a daughter enters the family company, it is important to determine from the beginning whether she is a potential TMT candidate. In this case, previous external business experience and target-oriented executive training are essential to develop a confident female leader, to the recognition of her achievements within the company, and, thus, to her positive effect on firm performance. However, not only family firms but also other companies need to understand how women can live up to their full potential and how they can become effective leaders. In this context, equal treatment of males and females at lower levels of the company plays an important role. HR policies should be evaluated to ensure fair and inclusive practices (Helfat, Harris, & Wolfson, 2006). Objective measures of performance and of performance evaluation are keys to counteracting the effects of prejudiced hiring and promotion. Furthermore, objective measures ensure fairness in succession planning and constrain the subjective influence of the evaluator (Eagly & Carli, 2008). Due to their reduced visibility, women are also rarely the beneficiaries of career development (Hill et al., 2015; Oakley, 2000). However, companies should implement training for TMT succession regardless of gender. When equally trained and prepared, females perform as well as men. Thus, career development must be addressed at the organizational level for family-run firms and on the environmental level for other firms to ensure the qualifications of externally hired females. The advancement of female managers at lower levels should therefore form part of the company’s strategy (Krishnan & Park, 2005). Leadership workshops, mentoring, networking, and developmental job experience are indispensable steps to reaching the top and leading effectively (Eagly & Carli, 2008; Helfat et al., 2006). At the environmental level, companies must understand the importance of hiring external executives. Smaller and family-run companies are particularly likely to revert to internal promotions as opposed to external hiring. Although lower-level managers are equipped with valuable firm-specific knowledge (DeVaro, 2006), external networks, the understanding of inter-organizational relations, and the superior levels of self-confidence (Geletkanycz & Hambrick, 1997) of externally recruited women are essential to their positive effects on firm performance.
Our results suggest that it is of the utmost importance to prepare candidates for their eventual prominent positions, particularly with regard to current diversity efforts worldwide. Succession planning and training should be considered carefully and implemented over a long period of time to ensure the best possible preparation of (female) candidates. Just promoting or hiring any woman in order to meet legislative, regulatory, or voluntary expectations might eventually harm firm performance.

5.3 Limitations and Future Research

Our study has several limitations. First, concerns might arise due to the subjective, ordinal measurement of the dependent variable. Since financial data of MEs are difficult to come by and the data of the present sample were collected anonymously, we were not able to validate subjective measurements by comparing them to objective corporate figures. However, there is strong support for the high reliability and validity of self-reported performance in broad rating scales (Chandler & Hanks, 1993). Broad rating scales of firm financial performance avoid problems with both extreme outliers and with possible unwillingness to reveal sensitive financial data (Zapkau et al., 2014). Still, in order to confirm the reliability and validity of our subjective measurement of firm performance, future research might revert to objective measures of financial performance.

Second, our sample exclusively consists of German companies. Although this prevents us from reflecting on the influence of institutional and economic factors (Nielsen, 2010), the substantial dataset of 1,025 observations allows us to base our analysis on a highly representative sample of MEs in Germany. The present study, therefore, portrays a well-grounded picture of the existing status quo. Still, a multi-country research design would allow for comparisons on an international level (Labelle, Francoeur, & Lakhal, 2015).

Third, although we find support for two out of three theoretically derived hypotheses, our effect-sizes are admittedly small. It is important to note that the impact of the proportion of women on firm performance is always considerably small (van Dijk et al., 2012). Furthermore, the results are quite reasonable considering that only two factors – the proportion of women at the TMT level and the recruiting sources – are analyzed as reasons for a relative change in performance (Krishnan & Park, 2005). In addition, prior studies found small effect sizes of significant interaction effects. In a 30 year review, Aguinis et al. (2005) found the median effect size of moderating categorical variables to be as small as 0.002. Therefore, it is essential to focus on the practical implications of the empirical
findings rather than their significance alone (Dawson, 2014). Regardless of the effect size, this study has helped demonstrate that person-oriented moderators such as recruiting processes are important when analyzing the effect of women on TMTs. Despite these limitations, this study contributes to both the TMT and gender diversity literature by opening up the field of person-oriented moderators. Future research should therefore analyze the effect of gender on TMTs, combined with job-related characteristics that enhance information processes. Potentially fruitful avenues for future research might be the moderating influence of industry tenure (Eisenhardt & Schoonhoven, 1990), organization tenure, or functional background (Jackson et al., 2003).
6 REFERENCES


Williams, K. D. (2010). Dyads can be groups (and often are). *Small Group Research, 41*(2), 268–274.