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What about the employees in entrepreneurial firms?

A multi-level analysis of the relationship between entrepreneurial orientation, role ambiguity, and social support

ABSTRACT

Research on entrepreneurial orientation (EO) has mainly addressed outcomes of EO at the level of the firm. However, few studies have examined how EO affects employees. Using a multi-level analysis of 343 employees nested in 25 SMEs, revealed that EO will increase the degree of role ambiguity among employees. Social support from management was not found to have any effect on the relationship between EO and role ambiguity. However, social support from co-workers weakens the EO-ambiguity relationship and can counteract the negative effects of EO to some degree. The study contributes to the EO literature by being one of very few that have considered possible negative consequences of EO, and it also highlights how to reduce role ambiguity in entrepreneurial SMEs.

1. INTRODUCTION

Entrepreneurial orientation (EO) usually refers to a firm's level of proactiveness, innovativeness, and risk-taking (Covin and Slevin, 1989; Miller, 1983; Wiklund and Shepherd, 2005). EO has proven to be a useful concept that can be used to examine how entrepreneurship affects firm performance (Lumpkin and Dess, 1996) and, as illustrated by the meta-analyses of Saeed et al. (2014) and Rauch et al. (2009), the EO-performance relationship has been examined in numerous studies. Although the specific operationalizations of firm performance have varied in studies that have examined the EO-performance relationship, the previous reviews have clearly shown that the literature has generally concentrated on various firm-level outcomes of EO. However, managers of small and medium-sized enterprises (SMEs) in particular are rarely only concerned with maximizing profitability or growth (Davidsson, 1989; Delmar and Wiklund, 2008; Spence and Rutherford, 2001; Wach et al., 2016; Walker & Brown, 2004). Instead, the occupational

well-being of employees has been identified as an important factor that influences the conduct of managers of SMEs (Curran et al., 1993; Dex and Scheibl, 2001). For example, Wiklund et al. (2003: 247) specifically “conclude that this concern [i.e. for employee well-being] may be a cause of recurrent conflict for small- business managers when deciding about the future route for their firms”.

An entrepreneurial posture is often associated with change and renewal (Lumpkin and Dess, 1996), and numerous studies (Burgelman, 1985; Dess et al., 1999; Hayton, 2005; Ireland et al., 2003; Rafferty and Griffin, 2006; Wales et al., 2011) have stressed that this is likely to result in increased uncertainty and ambiguity at the employee level. Role ambiguity is a key dimension of employee well-being (Katz and Kahn, 1978; Stamper and Johlke, 2003; Tubre and Collins, 2000) and is defined as “a perceived lack of job-related information” (Yun et al., 2007: 746). It is especially important to examine this dimension of well-being (Gilboa et al., 2008; Tubre and Collins, 2000) because “role ambiguity may be even more harmful than other role stressors, as it, for example, has a stronger negative relationship with employee work performance” (Kauppila, 2014: 740). Because of the uncertainty characterizing entrepreneurial organizations, the concern for employee well-being among SME managers, and the fact that role ambiguity is a key dimension of well-being, it becomes highly relevant to examine the relationship between EO and role ambiguity in SMEs. Although some studies have examined the relationship between EO and well-being (De Clercq and Rius, 2007), and EO and role ambiguity (Monsen and Boss, 2009), there is a notable scarcity of work exploring the relationship between firm-level EO and role ambiguity—as perceived by the employees—in SMEs.

If there is a correlation between EO and role ambiguity in SMEs, it is also relevant to examine the nature of the relationship. Research on entrepreneurship has highlighted the importance of providing social support for entrepreneurially oriented

organizations from managers (Hornsby et al., 2013; Kuratko et al., 2005a) and from others (Wales et al., 2011; Voss et al., 2005). In addition, according to social exchange theory (Blau, 1964; Emerson, 1976; Gouldner, 1960; Settoon et al., 1996), perceived organizational support is a key predictor of role ambiguity (Stamper and Johlke, 2003). Thus, social support from managers and co-workers in terms of “the availability of helping relationships and the quality of those relationships” (Leavy, 1983: 5) could be an important moderator of the EO-role ambiguity relationship. Based on this discussion, the aim of this article is to examine the relationship between EO and role ambiguity, and also to determine the possible moderating role of social support from co-workers and social support from managers in the EO-role ambiguity relationship. To address these issues, a multi-level study involving 343 employees belonging to 25 Swedish manufacturing SMEs was conducted.

The findings of the study make several contributions to the EO literature. Whereas most previous publications have conceptually argued that EO will increase uncertainty within organizations, this study can empirically validate such assertions or prove them to be false. Few publications have considered how EO affects employees (e.g. De Clercq and Rius, 2007; Wales et al., 2011), and most studies examining organizational dimensions of EO have instead focused on various practices aimed at promoting EO (De Clercq et al., 2010; Hornsby et al., 2013). Integration of research on EO and research on social support from social exchange theory for development and testing of various hypotheses could considerably advance the emerging field of EO research focusing on the organizational consequences of EO. Moreover, the previous study that examined the relationship between EO and role ambiguity (i.e. Monsen and Boss, 2009) studied a large, non-profit healthcare organization, and examination of the effect of EO on a more frequently used sample in EO research, i.e. SMEs, could possibly give other results. An increased understanding of how EO influences role ambiguity and considering the concerns that managers of SMEs have for the well-being

of employees, the extent to which this relationship is affected by social support could also have important managerial implications

Another contribution of the present study is the use of a multi-level research design per se, because it is likely to generate more robust findings. Most previous studies on EO and well-being (De Clercq and Rius, 2007; Monsen and Boss, 2009) have measured EO as perceived by employees, thereby using same-source data. In the present study, EO is measured by using the established method of measuring the EO of SMEs, i.e. as an overall strategic posture as perceived by the owner/manager (who is most likely to be the respondent who is best informed about EO), whereas individual-level role ambiguity and social support is measured by established operationalizations from social exchange theory research (Currivan, 1999). The use of multi-level studies on entrepreneurship has been highlighted as an important methodological approach in several publications (Davidsson et al., 2001; Davidsson and Wiklund, 2001; Shepherd, 2011; Welter, 2011). Wiklund and Shepherd (2011: 940) specifically believed “that there are considerable research opportunities crossing the individual and firm levels using multi-level research designs” because “EO is often captured on the basis of information from a single key informant”. In contrast to other studies on EO and well-being, this approach alleviates any concerns about using same-source data and the problems of common method bias associated with such research designs (Chang et al., 2010; Podsakoff et al., 2003; Podsakoff et al., 2012).

The remainder of this article is organized as follows. First, the key concepts of the article—EO and role ambiguity—are discussed and defined. Then, the hypotheses on the relationship between EO and role ambiguity, and the moderating role of social support from co-workers and managers are presented. Then, the methodology and the results of the study are presented. Lastly, the implications, limitations, and avenues for future research are discussed.

2. THEORY AND HYPOTHESES

2.1 Entrepreneurial orientation

EO has been conceptualized in different ways, but it generally refers to a firm's innovativeness, proactiveness, and propensity for taking risks (Covin and Slevin, 1989; Miller, 1983; Saeed et al., 2014). *Innovativeness* is about supporting new ideas in order to develop new processes and products (Covin and Slevin, 1989). This construct considers innovation in internal organizational processes as well as in the product market (Lyon et al., 2000). Implementing these new processes in the organization or launching new products or business practices on the product market ahead of competitors in order to gain first-mover advantages (Kerin et al., 1992) requires the firm to act *proactively* (Miller, 1983). Such actions are associated with a high level of *risk-taking* because entrepreneurial firms have to commit many resources—which often require the firm to borrow heavily—in order to pursue the opportunities identified (Wiklund and Shepherd, 2005).

There is an ongoing debate as to whether or not EO should be regarded as a unidimensional construct (Miller, 1983) or a multidimensional construct (Lumpkin and Dess, 1996). Although most empirical studies have conceptualized EO as a unidimensional construct comprised of innovativeness, proactiveness, and risk-taking (Rauch et al., 2009), some scholars argue that these dimensions should be considered as separate variables (Anderson et al., 2015; Kreiser et al., 2002). In spite of the fact that the three dimensions of EO can be manifested differently, “empirically speaking, it is not wrong to employ the Miller/Covin and Slevin EO scale in its entirety” (Covin et al., 2006: 81). In the seminal publication on EO, Miller (1983: 780) argued that focusing “upon the composite dimension is intuitively reasonable” because a firm has to excel in all dimensions of EO in order to be defined as being entrepreneurial. This “conceptualization and measure are consistent with the

exhibition of a phenomenon that is broadly recognized as a manifestation of entrepreneurship” (Covin and Wales, 2012: 693). Because the present study examines the effects of the overall entrepreneurial posture of firms, EO is conceptualized as a unidimensional construct consisting of innovativeness, proactiveness, and risk-taking.

Another aspect of particular interest when examining organizational consequences of EO is whether it should be regarded as a construct that can be used to describe the EO of an entire organization or whether it should be considered at the level of the various individuals who are affected by EO. Previous studies analyzing the effects of EO on some dimension of well-being (De Clercq and Rius, 2007; Monsen and Boss, 2009) have measured EO at the employee level by considering each individual’s perception of EO. However, in the vast majority of other EO studies, the concept is generally defined as a firm-level construct (Rauch et al., 2009; Saeed et al., 2014). The latter approach is likely to be particularly relevant for SMEs because, in contrast to larger firms with several business units (Wales et al., 2011), it is unlikely that the level of EO would vary within the organization. Also, EO concerns the overall strategy of a firm (Covin and Slevin, 1989; Dess et al., 1997; Wiklund and Shepherd, 2003) and top management is likely to have a more accurate perception of the strategic orientation of the firm than the other employees. Thus, in line with previous research, EO is considered to be a construct that can describe the strategic orientation of an organization as a whole. To summarize, in the present study EO is defined as a unidimensional firm-level construct concerning how a firm “engages in product market innovation, undertakes somewhat risky ventures, and is *first* to come up with proactive innovations, beating competitors to the punch” (Miller, 1983: 771).

2.2 Role ambiguity

Role ambiguity (i.e. ambiguity of role) is defined as “as a perceived lack of job-related information” where job-related information “can include performance expectations, goals, assignments, authority, responsibilities, job duties, and other job conditions” (Yun et al., 2007: 746). Role ambiguity is, by definition, strongly associated with organizational uncertainty, and increased ambiguity is often an unavoidable outcome of, for example, an entrepreneurial organization (Hayton, 2005) or a decentralized organization (Rizzo et al., 1970). Other characteristics of such organizations can be beneficial for employees. However, as this section will show, a perceived lack of information concerning expectations, duties, etc. (i.e. role ambiguity) among employees has quite a few major disadvantages for organizations and there are no organizational advantages to role ambiguity per se. Most previous research on role ambiguity has examined the relationship between ambiguity and job performance, and Gilboa et al. (2008: 231) could identify that “all previous meta-analytic reviews that covered role ambiguity supported our [their] expectation of a relatively strong negative association between role ambiguity and performance (Fisher and Gitelson, 1983; Jackson and Schuler, 1985; Tubre and Collins, 2000)”. In their own extensive meta-analysis, which included a total of 32,565 employees, of seven different stressors, Gilboa et al. (2008) found that role ambiguity had the strongest negative effect on job performance. Also, in contrast to some other stressors, role ambiguity is “least likely to have a challenge component” (Gilboa et al., 2008: 231). Thus, uncertainty as to what is being expected in terms of, for example, responsibilities, duties, and assignments has no positive effects on job performance (O'Driscoll and Beehr, 1994; Rizzo et al., 1970; Tubre and Collins, 2000). Thus, whereas other stressors might have some elements that can affect job performance positively, role ambiguity will strongly reduce job performance (Fried et al., 1998; King and King, 1990)

In addition to the strong negative effect on job performance, role ambiguity has been found to have several other negative consequences. Meta-analyses have shown that there is ample of evidence to show that role ambiguity will reduce job satisfaction (Abramis, 1994) and is correlated to increased anxiety and risk of depression (Schmidt et al., 2014). These studies confirm the notion that role ambiguity is highly unlikely to have any positive consequences. This is also supported by the relationship identified between a high degree of role ambiguity and intentions to quit (Bedeian and Armenakis, 1981; Firth et al., 2004; Monsen and Boss, 2009) and work-place bullying (Lewis et al., 2016). As a result, role ambiguity will also reduce the commitment to the organization (i.e. organizational citizenship behavior), as shown by Eatough et al. (2011).

To summarize, role ambiguity “is almost purely a hindrance factor” (Kauppila, 2014: 740) that is negative for employees as well as for organizations. The negative consequences of role ambiguity have been confirmed in numerous previous studies, and this makes it highly relevant to determine whether and how EO affects role ambiguity.

2.3 The relationship between EO and role ambiguity

Most studies on entrepreneurship and internal organization have examined how to promote entrepreneurship within an organization by, for example, determining how “key internal organizational factors... influence a firm’s entrepreneurial activities and outcomes” (Hornsby et al., 2013: 937) or how human resource management practices can promote entrepreneurship (Hayton, 2005).). The aim of the present study is, however, not to study how to promote EO but to examine the internal effects—in terms of role ambiguity—of EO on employees.

One of very few studies to examine this specific issue is Monsen and Boss (2009). Contrary to their own hypotheses, they found a negative relationship between EO and

role ambiguity. However, in their study they examined a single non-profit healthcare organization and the applicability of the results to SMEs can be questioned. Also, Monsen and Boss (2009) measured EO as the employee's individual perception of EO and not at the level of the firm. As discussed in the previous section, EO is, however, normally measured at the firm level (Rauch et al., 2009; Saeed et al., 2014) whereas role ambiguity must be examined at the level of the individual (Currivan, 1999). Thus, considering EO at the level of the firm and role ambiguity at the individual level in SMEs might give results other than those obtained when applying a single-level research design on a large single non-profit health organization. Contrary to the findings of Monsen and Boss (2009), in the general entrepreneurship literature and in studies on EO (and its sub-dimensions of innovativeness, proactiveness, and risk-taking), there are several conceptual arguments, as well as empirical evidence, supporting the notion that EO is likely to increase role ambiguity. This concerns the characteristics of being an entrepreneurial firm in addition to the outcomes of entrepreneurial behavior.

Entrepreneurial organizations promote creativity and entrepreneurial capabilities among employees (Alvarez and Barney, 2002). Enhancement of such behaviors often requires autonomous employees (Lumpkin and Dess, 1996) and internal cooperation that covers different formalized job assignments (Kanter, 1986). As a result, "entrepreneurial firms design jobs loosely" (Hayton, 2005: 38), and successful entrepreneurial and innovative firms rely less on hierarchies and formalization (Caruana et al., 1998; Covin and Slevin, 1988; Damanpour, 1991; Wang, 2008; Zahra et al., 1999). In doing so they facilitate "the emergence of informal internal and external networks, and allow the gradual allocation and sharing of resources" (Stevenson and Jarillo, 1990: 25). Thus, entrepreneurial firms are highly associated with an organization that "minimizes hard-and-fast rules and procedures governed by a rigidly defined command structure and [that] emphasizes instead flexibility" (Kanter, 1986: 47). The

absence of well-defined job roles, loose control systems, and less formalization can be beneficial for promotion of entrepreneurship (Alvarez and Barney, 2002; Ireland et al., 2003; Stevenson and Jarillo, 1990). However, this makes entrepreneurial firms more ambiguous than their less entrepreneurial counterparts (Burgelman, 1985). The very same organizational features and managerial practices that are characteristic of entrepreneurial organizations are closely related to increased role ambiguity. Organizational features play a key role in explaining role ambiguity (Jackson and Schuler, 1985; Tubre and Collins, 2000) and employees in organizations that rely heavily on informal control, loose job descriptions, and unclear expectations have been found to experience significantly increased role ambiguity (Eaton, 2003; Eatough et al., 2011; Kauppila, 2014).

In addition to organizational features and managerial practices necessary to promote entrepreneurship, the outcome of entrepreneurial behavior is also likely to generate role ambiguity. “EO implies change or adaptation in the pursuit of growth, it is in contradiction with the needs and requirements of organizational stability” (Wales et al., 2011: 906) and entrepreneurial actions will consequently result in increased uncertainty (McMullen and Shepherd, 2006). More specifically, firms with high levels of EO are characterized by their innovative and proactive practices, resulting in continuous change and renewal (Lumpkin and Dess, 1996). Also, “innovation efforts may be highly disruptive, altering relationships across functional and occupational boundaries” (Khazanchi et al., 2007: 871). These outcomes of entrepreneurial endeavors, i.e. reduced stability, change, and diffused occupational borders, are all likely to increase role ambiguity. Thus, during conditions of organizational renewal and change, established job roles are challenged and re-evaluated and the new conditions are likely to be interpreted differently by different employees, resulting in role ambiguity (Floyd and Lane, 2000). These notions have strong empirical support, and middle-level managers (Judge et al., 1999) as well as other employees (Bordia et al., 2004;

Jimmieson et al., 2004) have been found to experience increased role ambiguity and reduced control of roles when organizations undergo change.

In summary, at least when considered in isolation, role ambiguity is a negative concept for the employee experiencing it and organizations characterized by high levels of role ambiguity may experience several undesirable outcomes. Firms with higher levels of EO are likely to experience increased role ambiguity, due both to the specific features of entrepreneurial firms (i.e. less formalization, autonomous employees, etc.) and to the consequences of EO (i.e. instability due to change and renewal). Thus:

Hypothesis 1: EO is positively related to role ambiguity.

2.4 The moderating role of social support in the relationship between EO and role ambiguity

Numerous studies (e.g. Abdel-Halim, 1982; Beehr et al., 1990; Daniels and Guppy, 1994; Evans and Davis, 2005; Ganster et al., 1986; Stamper and Johlke, 2003; Viswesvaran et al., 1999) have found that one of the most important factors for elimination of role ambiguity or for reduction of the negative effects of role ambiguity is support from the social relationships within the organization. Social exchange theory is concerned with how social interactions over time entail various unspecified and non-formalized social obligations (Blau, 1964). It is a predominant theory for explaining the role of social support (Cropanzano and Mitchell, 2005; Wayne et al., 1997), i.e. “the availability of helping relationships and the quality of those relationships” (Leavy, 1983: 5), in organizations. The theory has frequently been used to explain how social support affects employees by, for example, examining overall perceived organizational support, support from management (often referred to as leader-member-exchange) (Wayne et al., 1997), and work team support (Cropanzano and Mitchell, 2005). It might be possible that EO, and the assumed ambiguity arising from it, is such an

important feature of entrepreneurial firms that social support concerning the roles and expectations of employees does not have a major effect on the relationship between EO and role ambiguity. However, considering the strong relationship between social support and role ambiguity found in previous studies, social support from co-workers and social support from managers is likely to influence the relationship between EO and role ambiguity.

2.4.1 The moderating role of social support from co-workers

As previously discussed, entrepreneurship is closely related to less formalized organizations and vague role expectations (Hayton, 2005). Moreover, entrepreneurial firms are characterized by boundary spanning, i.e. employees are expected to undertake tasks outside their formal job roles (Covin and Slevin, 1988; Stevenson and Jarillo, 1990). When formalized roles are unclear, the mutual agreements about non-formalized roles and expectations become more important (Kanter, 1986). Consequently, entrepreneurial organizations become more dependent on various—what Molm (2003) refers to as—reciprocal exchanges between employees. Such social exchanges will generate generalized norms, and “relationships characterized by generalized norms and trust produce a greater willingness to participate in social exchange and cooperative behaviors” (Evans and Davis, 2005: 766). Thus, entrepreneurial firms could be expected to be more dependent on employees supporting each other in order to develop informal role expectations—to compensate for ambiguous formal role expectations (Caruana et al., 1998; Wang, 2008). In addition, social support from co-workers can help employees to cope with increased uncertainty by, for example, assisting them when the workload increases (due to unclear expectations) or by provision of emotional reassurance and encouragement (Ganster et al., 1986; Schaubroeck et al., 1989), resulting in a reduced amount of perceived role ambiguity. Thus, EO is expected to increase role ambiguity but social support from co-workers is likely to moderate this relationship. The second hypothesis can be formulated as follows:

Hypothesis 2: Social support from co-workers will weaken the relationship between EO and role ambiguity.

2.4.2 The moderating role of social support from managers

Social exchange between managers and employees has been examined thoroughly in the social exchange literature (Cropanzano and Mitchell, 2005; Settoon et al., 1996; Wayne et al., 1997). Regarding social support from co-workers, the lack of more formalized role expectations and of more autonomous employees in entrepreneurial firms accentuates the need for strong social relationships and support from managers also (Basu and Green, 1997; Gupta et al., 2004). Social support from management specifically concerns the provision of “information that goes beyond the employment contract” (Kraimer et al., 2001: 77), and such information and guidance is generally more important in more entrepreneurially oriented firms (Hornsby et al., 2013; Wales et al., 2011). Thus, active management support has been found to be more important under the conditions of uncertainty (Skogstad et al., 2007; Skogstad et al., 2014) that are more associated with entrepreneurial firms (Lumpkin and Dess, 1996; McMullen and Shepherd, 2006), and, as a consequence, social support from management is likely to weaken the relationship between EO and role ambiguity.

In addition to compensating for a lack of formal role descriptions through strong social relationships, the renewal and change associated with entrepreneurial organizations can also generate increased ambiguity regarding the formal role expectations that do exist. This can also be compensated for somewhat by management support and continuous interaction between employees and management. By providing support, managers can swiftly reply to queries concerning job-related information (Beehr et al., 1990; Hofmann and Morgeson, 1999), thereby counteracting role ambiguity. Also, by continuously providing information by way of open dialogue (Jackson, 1983; Wayne et al., 1997) concerning changes in job roles,

employees can be more updated regarding what is expected of them, resulting in reduced role ambiguity (Grant et al., 2007). Thus:

Hypothesis 3: Social support from managers will weaken the relationship between EO and role ambiguity.

3. METHOD

3.1 Sample and data collection

The data used in this study are part of a larger survey involving manufacturing SMEs located in western Sweden. A consultancy company was used to collect the data. A list of 150 randomly selected companies to contact and also links to online surveys were delivered to the consultancy company. Due to the fact that the project involves firm-level and individual-level data, the consultancy company was instructed to collect data from the executive manager and from employees of each company. The companies were initially contacted by telephone or e-mail, and links to two online surveys (one for employees and one for the manager of the firm) were delivered to the 150 companies. 46 companies provided some kind of reply and of these, 25 companies provided all the data required, i.e. complete answers from the manager of the firm and from a sufficient number of employees from each company. The final sample consisted of data from 25 companies and 343 employees in these firms (8–15 employees from each company). The sample of employees consisted of 240 men and 103 women, and 59 of the employees were middle managers. The average level of EO of the 25 companies was 3.92, and this number corresponds to the level of EO found in previous studies on Swedish SMEs (e.g. Andersén, 2010; Wiklund and Shepherd, 2005).

3.2 Measures

The data used come from two different levels, i.e. individual-level data (N = 343) and firm-level data (N = 25), in which the level-1 data (individuals) are nested in the level-2-data (firms). All the survey questions were given in Swedish.

3.2.1 Level-1 variables

3.2.1.1 Role ambiguity

This variable is the dependent variable of the study. In line with previous research on role ambiguity (Glazer and Beehr, 2005; Yun et al., 2007), the variable was measured at the level of the individual experiencing the ambiguity. Role ambiguity was measured by using the scale of Currivan (1999) for addressing role uncertainty in terms of the clearness and incompatibility of job expectations. The respondents were asked to rate the extent to which they agreed to five different statements on a seven-point scale, ranging from “strongly disagree” to “strongly agree”. The statements were: “I do not know what my responsibilities are in performing my job”, “I know exactly what is expected of me in my job” (reversed), “I know how to get my job done” (reversed), “I get conflicting job requests from my co-workers”, and “Job requests from my managers and co-workers are often conflicting”. Cronbach’s alpha for this measure was 0.70.

3.2.1.2 Social support from co-workers

Co-worker support was measured using a seven-point scale, with three items adapted from Currivan (1999), i.e. “My co-workers can be relied upon when things in my job get tough”, “My co-workers are willing to listen to my job-related problems”, and “My co-workers are helpful to me in getting my job done”. Because social support is examined in the context of social exchange theory, this scale (for assessing social support from co-workers

and social support from managers) was considered most appropriate because “the proposed model explicitly adopts a social exchange perspective” (Currivan, 1999: 502). The data were slightly skewed, so they were transformed by way of inverse transformation. Cronbach’s alpha for this three-item variable was 0.88.

3.2.1.3 Social support from managers

Social support from managers was measured using a seven-point scale from Currivan (1999). The scale consists of two items: “My managers can be relied upon when things in my job get tough” and “My managers are willing to listen to my job-related problems”. The data were slightly skewed and were transformed by way of inverse transformation. Cronbach’s alpha for this two-item variable was 0.89.

3.2.1.4 Level-1 Control variables

Several factors at the level of the individual are likely to influence the role ambiguity of employees, and four different level-1 variables were controlled for: management position, gender, type of job, and level of education. Previous studies (Jamal, 1985; Kivimäki et al., 2002; Monsen and Boss, 2009) have shown that role ambiguity often differs between middle managers and other employees. Because of this, the respondents were asked if they had a managerial position involving responsibility for other employees. Also, factors influencing role ambiguity often differ between men and women (De Witte, 1999; Holman, 2002), and gender was therefore also used as a control variable. Level of education has also been considered in many studies examining role ambiguity (Currivan, 1999; Kauppila, 2014). The respondents were divided into two groups based on whether or not they had a college or university degree. Dummy variables were used to measure these three control variables, where the number “1” was used to represent “man”, “manager”, and “college/university degree”. Job type has also been found to influence role ambiguity (Ivancevich and Donnelly,

1974) and was controlled for by using dummy variables for five job types in manufacturing SMEs. The respondents were asked to state their primary work task in the company and could choose from work in the “production line”, “research and development”, “marketing/sales”, “support (i.e. administration/IT/human resources/accounting)”, and “other tasks”.

3.2.2 Level-2 variables

3.2.2.1 Entrepreneurial orientation

This variable is the key independent variable of the study. In some studies (De Clercq and Rius, 2007; Monsen and Boss, 2009), EO has been measured as how it is perceived by employees. However, and as previously described, in SMEs in particular EO is generally considered to be a firm-level construct (Miller, 2011; Wales et al., 2011). Also, due to the fact that EO concerns various strategic practices of the firm, it is more likely that top management have a better perception of the level of EO than employees. Therefore, data on EO was collected from the manager of each firm. Another argument for collecting information regarding EO and role ambiguity from different respondents (information on EO from the executive manager and data on ambiguity from the employees) is to overcome the problem of same-source data that has been associated with many previous studies on EO (Andersén, 2010; Wiklund and Shepherd, 2011). Hence, EO was measured at the firm level, as perceived by the manager of each firm, using the nine-item scale developed by Miller (1983) and Covin and Slevin (1989). Cronbach’s alpha for EO was 0.79.

3.2.2.2 Level-2 control variables

All the companies belong to the manufacturing industry and are located in the same region (western Sweden), thus eliminating the necessity to control for industry or geographical location. Previous multi-level research on stress and ambiguity has mostly used level-1 control variables (Kauppila, 2014; Van Yperen and Snijders, 2000). However, in line

with previous research on EO, the age and size of firms were used as level-2 control variables. These variables are also highly relevant when exploring role ambiguity. It is, for example, plausible that working in a smaller company with more, but vaguely defined, responsibilities has other positive effects that counteract increased role ambiguity, and using firm size as a control variable eliminates the importance of the size of the firm,. The data were collected from the database “Infotorg Företag”, which contains official information on all Swedish companies. The data on firm size were skewed, and were transformed by logarithmic transformation.

3.3 Data analysis

The relationships addressed in this study require interaction effects of variables at different levels to be examined (the interaction effect of the level-1 variables “co-worker support” and “management support” and the level-2 variable “EO” on the level-1 variable “role ambiguity”). In addition, because of the nature of the data, in which employees are nested in firms, it is highly likely that employees working in the same firm will have several similarities. Thus, the assumption of OLS multivariate regression that the observations are independent from each other is violated (Bliese et al., 2007; Hair et al., 2006; Hitt et al., 2007). A hierarchical multi-level research design does, however, consider correlated errors in observations and enables cross-level analysis. The data were analyzed using the software HLM7, using two-level hierarchical linear models. Multilevel modeling is a highly useful technique when analyzing hierarchical data because “it identifies the relationship between predictor and outcome variables, by taking both level-1 and level-2 regression relationships into account” (Woltman et al., 2012: 56). The technique has been used successfully in several previous studies with an identical number (Kauppila, 2014), fewer (Wu and Chaturvedi, 2009), or slightly higher number (Martin et al., 2007) of level-2 units of analysis than the present study.

In order to decide whether a multi-level research design is appropriate, the presence of a level-2 effect must be confirmed by examining the null model. In the present study, this means examining whether being a co-worker in a specific company has an effect on the intercept of the level-1 dependent variable, i.e. role ambiguity. An intercept-only null model, i.e. a model without any variables, was therefore tested. The model supports the use of multi-level analysis ($\chi^2 = 70.19$, $P < 0.00$). Calculation of the intra-class correlations showed that 12.5% of the variances in role ambiguity could be explained by firm-level factors and, consequently, 87.5% could be explained by factors related to the individual. This result is almost identical to the result of Kauppila (2014), who found that 88.5% of the variance in role ambiguity could be explained by within-group factors.

As suggested by Garson (2013), all level-1 variables were group-mean-centered whereas level-2 variables were grand-mean-centered. R^2 -values were calculated using the formula suggested by Raudenbush and Bryk (2002) and Snijders and Bosker (1999) for estimation of within-firm variance and between-firms variance. The cross-level interaction effects of EO and co-worker support and management support was tested using the slope-as-outcome function in HLM7.

4. RESULTS

The bivariate correlations and descriptive statistics are given in Table 1 and the regression models are presented in Table 2. As illustrated in Table 1, there was a correlation between co-worker support and management support, which could cause some multicollinearity issues. Additional single-level (i.e. employee-level) regressions on how co-worker support and management support affect role ambiguity were therefore conducted. The results generated satisfactory VIF values for both variables ($VIF < 1.5$) and, additionally, no

non-linear relationships (using quadratic terms for both variables) could be identified. Nevertheless, in order for the two variables not to confound the relationships of interest, two separate models were developed (see Table 2) with only co-worker support included in Model 3 and management support included in Model 4. Moreover, some studies (Kreiser et al., 2013; Wales et al., 2013) have identified non-linear effects of EO. Thus, additional multi-level regressions on possible non-linear relationships between EO and role ambiguity were conducted (by examining the quadratic EO term) and yielded results that were not statistically significant.

As evident from the Full model (i.e. Model 2) and in line with previous research, both co-worker support ($\beta = -0.91$, $P < 0.001$) and management support ($\beta = -0.87$, $P < 0.001$) were found to be important predictors of role ambiguity. The model explains 17% of the variance within firms and 15% of the variance between firms.

“Insert Table 1 about here”

“Insert Table 2 about here”

Concerning the hypotheses, Hypothesis 1 was supported, i.e. EO will significantly increase role ambiguity ($\beta = 0.26$, $P < 0.05$); thus, employees in firms with higher levels of EO experience higher role ambiguity. Hypothesis 3, i.e. that social support from managers will moderate the relationship between EO and role ambiguity, was (as evident from the cross-level interactions in the Full model and in Model 4) not supported. The moderating effect of social support from co-workers was, however, significant ($\beta = -0.45$, $P < 0.05$ in the Full Model; and $\beta = -0.59$, $P < 0.001$ in Model 3). The nature of this moderation (based on the Full model regression) is illustrated in Figure 1.

“Insert Figure 1 about here”

As is evident from Figure 1, social support from co-workers moderates the relationship between EO and role ambiguity. The slopes indicate that a high degree of co-worker support can actually shift the slope between EO and role ambiguity from being negative to being positive. Thus, as stipulated in Hypothesis 2, it can be concluded that co-worker support will weaken (and even possibly reverse) the relationship between EO and role ambiguity.

5. DISCUSSION

The results of the null model support the results of Kauppila (2014) that a small proportion of variance in role ambiguity (12.5% in the present study and 11.5% in the Kauppila study) can be explained by factors related to firms, whereas 87.5% of the variance (88.5% in the study by Kauppila) can be explained by factors related to individuals. Thus, firms have a limited ability to influence the perceived role ambiguity of their employees. EO is such a firm-level factor, and the lack of explanatory power of firm-level factors highlights the importance of the finding that EO increases role ambiguity (i.e. the support for Hypothesis 1). Thus, a main contribution of this study is that risk-taking, innovative, and proactive SMEs are likely to have employees experiencing more uncertainty regarding what is expected of them in their jobs. This finding has been conceptually, although often implicitly, argued for in several publications on EO and entrepreneurship (Burgelman, 1985; Dess et al., 1999; Lumpkin and Dess, 2001).

Hypothesis 2 was supported, thus social support from co-workers is more beneficial for entrepreneurial SMEs. As previously hypothesized, the uncertainty often associated with entrepreneurial firms can be compensated for by reciprocal exchanges (Settoon et al., 1996) between employees, thereby generating the development of more informal role expectations and a culture of supporting each other (Evans and Davis, 2005).

The support for Hypothesis 2, i.e. that co-worker support will moderate the relationship between EO and role ambiguity, can also explain why the results of the present study differed from those of Monsen and Boss (2009). As previously discussed, the unit of analysis in the previous study was a single non-profit healthcare organization, i.e. the opposite of the manufacturing SMEs examined in the present study. Healthcare organizations generally have more formal job roles, and the nature of role ambiguity (Brunetto et al., 2011; Chenhall and Brownell, 1988) and how EO (Wales et al., 2011) is manifested in a large healthcare organization as opposed to a small manufacturing private company is likely to differ substantially. As indicated by Figure 1, well-developed co-worker support can actually change the relationship between EO and role ambiguity from a positive relationship to a negative relationship. Thus, examining organizations with high levels of co-worker support will most likely result in the identification of negative relationships between EO and role ambiguity. This illustrates the importance of taking various organizational characteristics into consideration when examining internal consequences of EO.

Although social support from managers has a universal effect on reducing role ambiguity, in contrast to Hypothesis 3, management support does not moderate the relationship between EO and role ambiguity. This can most likely be explained by the fact that a key managerial task is to provide information and guidance about *formal* expectations, authorities, individual goals, etc. (Rizzo et al., 1970; Tubre and Collins, 2000). Thus, social support from managers is also important for clarification of formal job expectations, and when there is a lack thereof, co-workers rather than managers are most likely to jointly develop informal job roles. As a result, social support from managers has an equally important function in non-entrepreneurial firms—thus, the lack of an interaction effect. It is also plausible that higher levels of social support from managers can challenge informal role expectations and consequently increase some dimensions of role ambiguity. Management

support has been found to be important for promoting entrepreneurial behavior (Brown et al., 2001; De Clercq et al., 2010; Hornsby et al., 2013; Hornsby et al., 2002) and/or innovative behavior (De Clercq et al., 2016; Hidalgo and Albors, 2008). However, the present study has been concerned with the effects (and not antecedents) of entrepreneurial behavior by determining whether social support can reduce possible negative consequences (i.e. role ambiguity) of entrepreneurship.

The findings of this study also contribute to research on strategic management of SMEs by considering a strategic objective that has been emphasized by many SME managers but somewhat neglected by scholars examining EO, i.e. the well-being of employees (Brunninge et al., 2007; Wiklund et al., 2003). By focusing on various performance measurements at the firm level, most previous studies on EO have not problematized or considered the relevance of the conflicting-outcomes viewpoint concerning firms that is often applied in industrial-relations research (Ramsay et al., 2000; Van De Voorde et al., 2012). According to the conflicting-outcomes viewpoint, several management practices have been found to be beneficial for owners (by, for example, improving various—at least temporary—financial outcomes such as growth or profitability) but negative for employees due to greater stress and uncertainty, for example (Godard, 2004; Paauwe and Boselie, 2005). The results of this study indicate that EO can be such a management practice for SMEs, i.e. an organizational characteristic resulting in increased firm-level performance but with negative outcomes for employees in terms of role ambiguity. Role ambiguity is a key factor in explaining reduced well-being of employees (Katz and Kahn, 1978; Stamper and Johlke, 2003) and poorer job satisfaction (Abramis, 1994; Currivan, 1999). Due to the concerns that small-business managers have for the well-being of their employees (Wiklund et al., 2003), the finding that EO increases role ambiguity is therefore quite troublesome. This should also be important for SMEs that mainly focus on maximization of profit (rather than

employee well-being) because reduced well-being of employees is likely to affect the performance of a firm in the long run. A high degree of role ambiguity has, for example, been found to increase employees' intentions to quit (Monsen and Boss, 2009) and to reduce employees' commitment to the organization (Eatough et al., 2011). Through time, such consequences can have a negative effect on firm performance (Eaton, 2003; Huselid, 1995).

5.1 Managerial implications

Numerous authors (Li et al., 2009; Wang, 2008; Wiklund and Shepherd, 2005) have established that EO enhances firm performance, at least in the short term, and have recommended that management should have a more entrepreneurial orientation. The results of the present study indicate that the managerial implications of EO may be more complex. EO will often increase role ambiguity and can result in negative outcomes for employees. EO might generate some positive outcomes at the employee level and, for example, De Clercq and Rius (2007) were able to identify a positive effect of EO on organizational commitment. However, role ambiguity is such an important factor for the well-being of employees, and managers concerned with employee well-being are advised to consider not only the positive consequences but also the negative ones highlighted in the present study, when deciding whether or not to embark on their entrepreneurial endeavors.

The finding that social support from co-workers is more important to entrepreneurial firms for reducing role ambiguity can, however, be useful for SMEs that are striving to be more entrepreneurial. Although EO will increase role ambiguity, support from co-workers will reduce these effects. Whereas previous studies have highlighted the importance of management support for promotion of entrepreneurial behavior among employees, the present study has shown the importance of also developing a supportive culture between employees in order to counteract possible negative consequences of EO.

Although social support from managers does not moderate the EO-role ambiguity relationship per se, it is still important and can be used to reduce role ambiguity. Thus, the present study presents empirical evidence supporting the recommendations to entrepreneurial firms provided by, for example, Ireland et al. (2003) and Kuratko et al. (2005b)—e.g. to focus on open communication among employees, continuous support, and dialogue with employees.

5.2 Limitations and future research

A limitation of this study was that the sample of firms was restricted to 25 SMEs. To overcome the limitation of the small number of firms included in the study, great care was taken to confirm that the firms had similar attributes. For example, all of them were manufacturing SMEs located in the same geographical area (western Sweden). Also, the average EO of the firms corresponded to that of firms in other studies on EO. In addition, due to the multi-level approach, the units of analysis were the 25 SMEs and the 343 employees nested within these firms.

Another limitation of this study was that it was restricted to Swedish firms, and due to cultural differences the applicability of the results to other countries could be questioned (Knight, 1997). The concern about well-being of employees among managers of SMEs may be different in Sweden and in other countries (Wiklund et al., 2003) and the interpretation and importance of EO have also been found to differ between countries (Kemelgor, 2002). Although many previous studies on EO have examined Swedish SMEs and the businesses environment in Sweden is likely to be similar to that in other western countries (Saeed et al., 2014), the generalizability of the results presented in this study would be strengthened if similar studies were to be conducted in other cultural contexts.

In addition to replicating the research design in other cultural contexts, there are some other interesting avenues of future research. This is one of the first multi-level studies to

explore how EO affects employees. By analyzing a larger sample of firms in future multi-level studies on the consequences of EO for employees, it would be possible to add firm performance into the equation. Do, for example, the employees of high-performing entrepreneurially oriented companies experience reduced or increased role ambiguity?

Another relevant area for future research to address is conducting multi-level studies on how EO affects other aspects of employee well-being. Although role ambiguity is an important factor in explaining well-being, other dimensions of well-being such as workload and organizational commitment (Curri van, 1999; Daniels and Guppy, 1994; Danna and Griffin, 1999) could provide new insights into how EO affects employees in SMEs.

6. CONCLUSION

This study has found that EO increased the degree of role ambiguity for employees in a sample of Swedish manufacturing SMEs. Whereas most previous studies have emphasized the various positive effects of EO, this article has provided some evidence that EO can have negative consequences. However, whereas the relationship between EO and performance has been examined, discussed, and refined in numerous studies, this study is one of the first efforts to examine the relationship between EO and outcomes at the employee level by way of a multi-level research design. In addition, the finding that social support from co-workers serves as an important moderator that can be used to counteract increased role ambiguity caused by EO highlights the importance of examining the importance of co-worker relations, and not only the relationship between managers and employees. This article will hopefully encourage other scholars to examine the effect of EO on organizations in general and on employee well-being and employee relationships in particular.

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Table 1. Descriptive statistics and correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9
Level 1, n=343											
1. Gender	0.70	0.46									
2. Manager	0.17	0.38	0.18**								
3. Education	0.25	0.43	-0.08	0.08							
4. Job RnD	0.12	0.32	0.07	-0.12*	0.23***						
5. Job Sales	0.16	0.37	-0.09†	-0.10†	0.04	-0.16***					
6. Job Support	0.15	0.36	-0.19***	-0.04	0.18**	-0.15***	-0.19***				
7. Job Other	0.12	0.32	-0.01	-0.07	0.06	-0.14**	-0.16**	-0.15**			
8. Co-worker support	0.55	0.24	-0.15**	-0.04	0.04	-0.03	0.04	0.03	0.04		
9. Management support	0.56	0.28	-0.12*	0.02	0.04	-0.07	-0.00	0.06	0.12*	0.54***	
10. Role ambiguity	1.59	1.06	0.13*	-0.01	0.04	0.04	0.05	-0.08	0.1	-0.41***	-0.39***
Level 2, n=25			1	2							
1. Firm age	37.64	18.34									
2. Firms size	1.84	0.29	-0.27								
3. Entrepreneurial orientation	3.92	0.91	-0.12	0.18							

† P<0.10; *P<0.05; **P<0.01;***P<0.001

Table 2. Results of multilevel hierarchical linear modelling analyses with robust standard errors.

	ROLE AMBIGUITY							
	Model 1 (Controls only)		Model 2 (Full model)		Model 3 (Co-worker support)		Model 4 (Management support)	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Intercept	1.60***	0.08	1.60***	0.07	1.60***	0.08	1.60***	0.08
Level 1								
Gender	0.42***	0.13	0.28*	0.14	0.29*	0.14	0.33*	0.13
Manager	-0.14	0.18	-0.12	0.15	-0.13	0.17	-0.13	0.15
Education	0.15	0.15	0.15	0.12	0.22	0.13	0.20	0.13
Job RnD	-0.08	0.21	-0.04	0.21	0.03	0.22	-0.13	0.18
Job Sales	0.07	0.14	0.16	0.14	0.19	0.13	0.09	0.15
Job Support	-0.20	0.16	-0.09	0.17	-0.09	0.19	-0.15	0.15
Job Other	0.01	0.19	0.19	0.16	0.15	0.15	0.16	0.19
Co-worker support			-0.91***	0.24	-1.43***	0.20		
Management support			-0.87***	0.21			-1.28***	0.17
Level 2								
Firm age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Firm size	-0.01	0.32	-0.01	0.33	-0.01	0.33	-0.01	0.33
Entrepreneurial orientation			0.26*	0.10	0.26*	0.10	0.26*	0.10
Cross-level interactions								
Co-worker support X Entrepreneurial orientation			-0.45*	0.22	-0.59***	0.14		
Management support X Entrepreneurial orientation			-0.07	0.24			-0.31	0.17
R ² within-firm	0.04		0.17		0.14		0.14	
R ² between-firms	0.00		0.15		0.14		0.14	

*P<0.05; **P<0.01;***P<0.001									

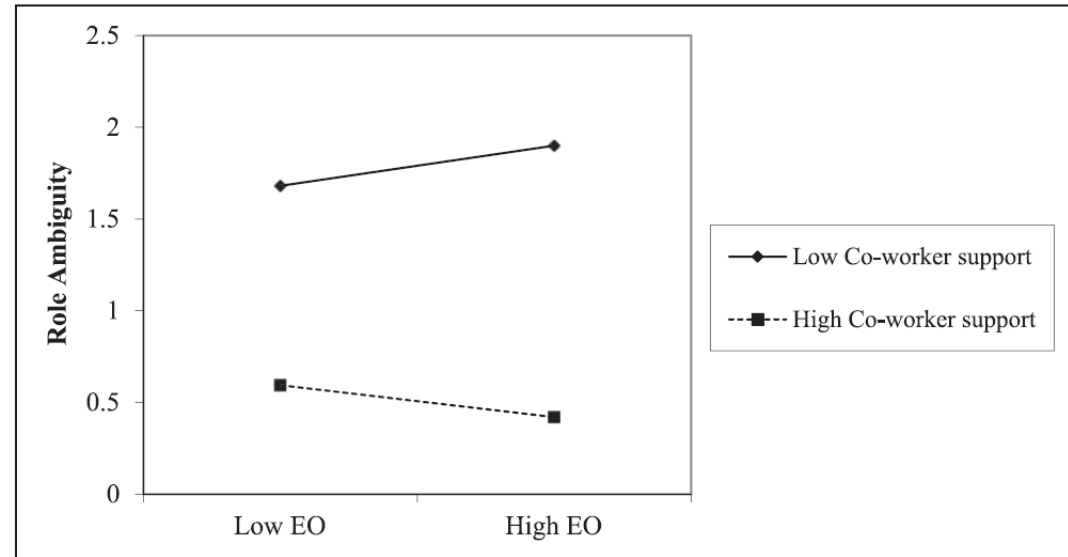


Figure I. The moderating role of social support from co-workers on the relationship between EO and role ambiguity.