

Is top management team-supply chain manager interaction the missing link? An analysis of risk-bearing antecedents for supply chain managers

Veronica H. Villena

Pennsylvania State University, University Park, Pennsylvania, USA

Guanyi Lu

College of Business, Oregon State University, Corvallis, Oregon, USA

Luis R. Gomez-Mejia

Department of Management and Entrepreneurship, Arizona State University, Tempe, Arizona, USA, and

Elena Revilla

Department of Operations Management, IE Business School, Madrid, Spain

Abstract

Purpose – Supply chain managers (SC managers) may make less than optimal decisions for the firm when facing compensation and employment risks. The purpose of this paper is to study two relevant factors (target setting and strategic importance of the supply chain function) that may drive SC managers to perceive more or less risk to their welfare.

Design/methodology/approach – The study combines survey data from 133 firms with secondary data in order to reduce source bias and enhance the validity of results. The authors also conducted interviews with supply chain and human resources managers.

Findings – The results show that top managers can alter SC managers' perceived risks. Ambitious targets drive compensation risk but not employment risk. The supply chain function's strategic importance, on the other hand, decreases employment risk but increases compensation risk.

Research limitations/implications – The authors emphasize two ways that the top management team (TMT) influences SC managers' perceived personal welfare but acknowledge that there may be others factors. Due to the topic sensitivity, the authors could not collect data on all variables (e.g. individual characteristics) that may affect risk perception. The findings are based on Spanish firms and may not be generalized to other contexts.

Practical implications – This research proposes three suggestions. First, compensation and employment risks should be considered separately when designing compensation and evaluation systems. Second, appropriate performance targets may put compensation risk in a reasonable range that is neither too high to prevent risky-yet-beneficial decisions nor too low to allow nonfeasance. Third, escalating the supply chain's strategic importance effectively offsets employment risk.

Originality/value – Scholars have repeatedly shown the negative outcomes of SC managers' perceived compensation and employment risks. Yet, little attention has been given to their antecedents. The study explores two relevant antecedents and provides integrative empirical evidence regarding actions top leaders can take to manage SC managers' perceived risk and subsequently enhance firm performance.

Keywords Top management team, Ambitious targets, Compensation and employment systems, Supply chain managers

Paper type Research paper



1. Introduction

Supply chain managers (SC managers)[1] routinely make critical decisions that directly impact firm performance. Their decisions can place them, as well as the firm, at risk. For example, SC managers may be penalized via reduced compensation – or even

dismissal – when their decisions disappoint. Based on behavioral agency model (BAM) (Wiseman and Gomez-Mejia, 1998), scholars have shown that SC managers who perceive high compensation and employment risks are tempted to avoid high-risk options to protect their personal welfare, but such choices may be less than optimal for the firm (Villena *et al.*, 2009). However, the antecedents of compensation and employment risks for SC managers are understudied. For example, what drives SC managers to perceive more or less risk to their welfare? The answer to this question provides top managers potential ways to influence SC managers' decisions, thereby impacting business performance.

To address this research question, we explore factors affecting compensation and employment risks for SC managers. We combine insights from BAM and supply chain studies and propose two variables at the firm and the function levels that are likely to play pivotal roles in this issue. At the firm level, we study how top management teams (TMTs) pressure SC managers by setting ambitious targets (Ou *et al.*, 2014). Top managers have to set appropriate targets for middle managers to communicate plans to lower-level employees. Such targets make expectations clear (Aranda *et al.*, 2017) and are often used for employee evaluation and compensation (Simons, 2000). Toyota's gas pedal quality crisis illustrates how top management's aggressive targets can influence functional managers' decisions to choose growth over traditional production-system practices (Cole, 2011). Ambitious targets can increase the perception of personal risk because higher performance targets and the likelihood of falling short tend to move in tandem.

At the function level, we focus on how acknowledgment of the strategic importance of the supply chain function reduces these perceived risks. Some firms have elevated SC managers to vice president rank to signify their commitment to the supply chain function (Giunipero *et al.*, 2006; Mangan and Christopher, 2005; Stratman, 2010). Greater demands for sustainable operations, fast product development, and access to global markets have further boosted supply chain prominence (Goebel *et al.*, 2003; Ogden *et al.*, 2005). As the supply chain becomes a vital component of corporate strategy, SC managers command more resources, greater power, and longer planning horizons to achieve performance targets (Pfeffer and Salancik, 1978; Thornton *et al.*, 2016), alleviating SC managers' perceived risks.

This study makes two contributions. First, despite the negative outcomes of compensation and employment risks (Devers *et al.*, 2008; Martin *et al.*, 2013; Larraza-Kintana *et al.*, 2007; Villena *et al.*, 2009), little attention has been given to their antecedents. Compared to other middle managers, SC managers may face more risks owing to two unique characteristics of their job: globalization and cross-functional nature. SC managers often manage a complex supply base that spans the globe (Kiessling *et al.*, 2014; Lu and Shang, 2017). Disruption in one supplier can result in production shutdown (Kim *et al.*, 2015). SC managers also manage a functional area without clear boundaries (Hulsmann *et al.*, 2008) – they have to become “integrators” who have a strong understanding of the different processes that take place inside and outside the firm's boundaries in order to deliver superior value to the marketplace (Christopher, 2005; Lambert *et al.*, 2008). This inter-unit and inter-organizational nature of supply chain management not only exposes SC managers to more uncertainty but also provides them with more information advantages and discretion. Thus, a relevant question is what top managers can do and should do to control the perception of risk for SC managers, especially when they are essential to firm competitiveness (Gutierrez-Gutierrez *et al.*, 2018). We propose two mechanisms: setting appropriate targets and recognizing the strategic importance of the supply chain function. Top managers control both, and can use them to influence SC managers. We examine both individual and compound effects of the two mechanisms. Our results contribute to the emerging behavioral operations literature by suggesting that top managers can indeed alter SC managers' perceived risks.

Second, the BAM literature has primarily focused on Board-CEO relations, but overlooked TMT-middle manager relations. Unlike the Board Members-CEO context, where both board members and CEOs take a holistic view to develop strategic planning, middle managers have a functional focus. CEOs are often board members and have the power to negotiate compensation packages (Boyd, 1994), while functional managers wield far less power. Using SC managers as an example, our study explores whether conventional wisdom about CEOs' risk perception holds for functional managers. Our results provide some evidence that conventional wisdom is not universally true. For example, SC managers perceive more compensation risk when their function is vital to the firm. This perception contradicts what the strategic management literature would predict (Miller *et al.*, 1996; Ren and Guo, 2011). Thus, we assess the applicability of some established corporate governance theories in the supply chain management context. Our study complements the recent study by Ahearne *et al.* (2014) on the performance impact of middle managers by exploring the antecedents to their perceived risks, which affect their behaviors.

2. Literature review

2.1 The BAM

The BAM takes a meso-theoretical perspective by integrating elements of agency theory (Jensen and Meckling, 1976) and prospect theory (Kahneman and Tversky, 1979) in the principal-agent problem. Unlike agency theory, which emphasizes monitoring processes and incentive alignment (Zu and Kaynak, 2012), BAM places agent performance and work motivation at the center by arguing that "the interests of principals and their agents are most likely to be aligned if agents are motivated to perform to the best of their abilities" (Pepper and Gore, 2015, p. 3). BAM proposes that decision makers' risk-taking behaviors are determined by risk-bearing (Sitkin and Weingart, 1995), which is defined as "the perceived risk to agent wealth," that is, compensation and employment risks (Wiseman and Gomez-Mejia, 1998, p. 136).

BAM has been widely used as the theoretical framework in executive compensation studies – primarily CEOs and top executives (e.g. Devers *et al.*, 2008; Gomez-Mejia *et al.*, 2011; Hoskisson *et al.*, 2017; Lim and McCann, 2014; Martin *et al.*, 2013; Pepper and Gore, 2015). We use this theoretical framework to examine how the setting of ambitious targets causes SC managers to perceive compensation risk, but adapt it to our context. Compensation packages include both base pay and variable pay (both may be at risk when targets are missed). However, middle managers have much less variable pay in their compensation packages than top executives (Larrazza-Kintana *et al.*, 2007). Also, base pay is viewed as essential to a manager's standard of living, whereas variable pay is not fixed, far less certain, and more likely to be deferred (Kuvaas *et al.*, 2017). We thus focus on base salary because, in our context, threats to base pay have a stronger impact on SC managers' behaviors than do threats to variable pay. Past studies have suggested that managers may perceive risk to base pay when the base salary is frozen, falls behind the market, loses ground relative to other managers or new hires within the firm, or, in the extreme case, is cut (Pepper and Gore, 2015).

Under BAM, agents (SC managers in our case) perform to the best of their abilities when their personal compensation and employment risks are minimized (Pepper and Gore, 2015). Empirical BAM studies have focused exclusively on the consequences of top executives' risk-bearing (Martin *et al.*, 2013; Cain and McKeon, 2016) but the antecedents of risk-bearing are largely ignored, despite the fact that some BAM researchers have theoretically proposed several antecedents such as compensation mix, performance history, internal/external indicators, and target difficulty (Wiseman and Gomez-Mejia, 1998). We particularly emphasize target difficulty because it is fully controlled by TMTs and represents one of the most direct links between TMTs (strategy makers) and SC

managers (strategy executors). To effectively articulate high-level strategies to lower-level employees, top managers need to provide clear guidance and set appropriate targets for middle managers. Aranda *et al.* (2017) stated that “target setting is a core process of the planning and control functions of management” (p. 1191). Targets make expectations and aspirations explicit and are usually used for employee evaluation and compensation (Simons, 2000). In addition, target setting plays other important roles in firms such as motivation, resource allocation, and coordination (Merchant and Van der Stede, 2011), all of which may affect firm performance (Shinkle, 2012). Thus, target setting is one fundamental way top leaders communicate their expectations to middle managers. Target setting influences the reference point used to gauge risks. The agent may compare the forecast of expected gains to performance targets. Setting ambitious targets generates a loss-decision context, where the agent anticipates “a return below one’s reference for gauging acceptability” (Wiseman and Gomez-Mejia, 1998, p. 136). All else being equal, ambitious targets will result in perceived compensation and employment risks.

Despite its comprehensiveness, BAM does not include any function-level factor because it was initially developed for CEOs and top executives. Thus, we opted study the strategic importance of the supply chain function. Resources, power and time granted by the top managers due to the supply chain’s criticality can affect the reference point used to gauge risk and potentially offset SC managers’ pressure to reach performance targets (Pfeffer and Salancik, 1978; Thornton *et al.*, 2016). Thus, we propose that the perceived strategic importance of the supply chain function can curb perceived risks.

2.2 TMT-SC manager interaction

The literature on top-middle manager interactions can be classified into three broad streams. One stream primarily links top leaders’ behaviors to middle managers’ trust in leadership, commitment to the firm, and participation in strategic changes (Brower *et al.*, 2009; Shin *et al.*, 2015). Previous research reveals that top leaders can affect lower-level employees through various mechanisms such as leadership, management practices, resource allocation, or organizational culture (Ou *et al.*, 2014).

Another stream emphasizes how the strategic involvement of middle managers affects strategy compliance (Cantor *et al.*, 2015; Morrison, 2015). The involvement of middle managers in strategy formulation can influence strategy implementation both positively and negatively (Ahearne *et al.*, 2014). On the one hand, middle manager involvement can positively affect strategy implementation due to their unique knowledge of their functions. Top managers’ strategies cannot account for all particularities of a middle manager’s function. Middle managers can help fine-tune strategies, thus gaining employee commitment and positively affecting strategy implementation. On the other hand, middle manager involvement can negatively affect strategy implementation, owing to their adaptability. High levels of middle manager involvement (and thus potential “workarounds” – shortcuts that may get the work done; Morrison, 2015) can be perceived by top leaders as questioning their power. The resultant conflicts and communication costs are detrimental to strategy implementation.

The third research stream focuses on the design of incentive systems, with the primary focus on CEOs and TMTs (Werner and Tosi, 1995). Despite advances in this area, scholars continue to call for further research. Raes *et al.* (2011, p. 102) suggested that “the literature on TMTs and MMs [middle managers] has largely developed along separate lines, and researchers have remained silent on the processes by which TMTs interact with MMs [...]” Simsek *et al.* (2015, p. 469) echo the call, stating that “research about the interface between top management and middle management is relatively scarce.”

The TMT-SC manager interaction remains largely unexplored in the supply chain literature (see Table I). Despite the increasing acknowledgment of the supply chain function, the literature

Study	Decision maker interest ^a	Level of decision maker ^b	Top-middle interface	Issue scale ^c	Context
<i>Studies in supply chain management</i>					
Bendoly, Perry-Smith and Bachrach (2010)	Individual	Middle	No	Within firms	Resource sharing in project-work planning
Bhattacharjee (1998)	Organization	Middle	No	Within firms	Managerial influences on intraorganizational IT use
Choo <i>et al.</i> (2007)	Organization	Middle	No	Within firms	Learning behaviors and knowledge creation in six sigma projects
González-Loureiro <i>et al.</i> (2014)	Organization	Organization	na ^d	Within firms	A review on international human resource management in the supply chain management literature
Morrison (2015)	Individual	Middle	No	Within firms	Workarounds in resource shortages
Parker and Russell (2004)	Organization	Organization	No	Both within and between firms	Behavioral issues such as psychological contracts affect the success or failure of an outsourcing strategy
Pennings and Smidts (2003)	Organization	Middle	No	Within firms	The shape of utility functions and organizational behavior (i.e. the production system employed)
Siemens <i>et al.</i> (2009)	Organization	Organization	No	Within firms	Employee knowledge sharing within organizations
Smith <i>et al.</i> (2009)	Organization	Middle	No	Within firms	Behaviors of high-reputation plant managers
Thornton <i>et al.</i> (2016)	Individual	Middle	No	Within firms	Supply chain executives' political skill in internal integration
Villena <i>et al.</i> (2009)	Individual	Middle	No	Between firms	Supply chain executive decision making in supply chain integration
<i>Studies in other areas</i>					
Ahearne <i>et al.</i> (2014)	Individual	Middle	No	Within firms	Middle managers' adaptability in strategy implementation
Hosikisson <i>et al.</i> (2017)	Mixed	Mixed	na	Both within and between firms	A recent review on managerial risk taking in management literature using a multitheoretical perspective
Ou <i>et al.</i> (2014)	Organization	Organization	No	Within firms	TMT integration on middle managers' perception of having "an empowered organizational climate"
Notes: ^a Organization: decision is based on the organization's interests. Individual: decision is based on the individual's interests; ^b organization: the decision can be made by either a top-level manager or a middle-level functional manager on behalf of the organization. Middle: the decision maker is a middle-level functional managers such as purchasing and supply chain managers; ^c the boundary of the impact of the decision makers' behaviors; ^d review article does not focus on a specific topic					

Table I.
Literature review

has focused exclusively on SC managers' behaviors (Bendoly *et al.*, 2010; Bendoly and Eckerd, 2013). However, it neither discusses TMT influence on SC managers' behaviors nor addresses the compensation and employment risks perceived by SC managers. This is surprising as SC managers who believe their interests are compromised may not only hinder strategy implementation but could also sabotage the strategy itself (Morrison, 2015). Indeed, SC managers enjoy information advantages and operational discretion (Siemens, 2008; Katok and Siemens, 2011). They possess up-to-date knowledge of supply chain opportunities and potential threats

when channeling supply chain resources (Mangan and Christopher, 2005). However, such knowledge and autonomy also provide them opportunities to behave in ways that might be inconsistent with TMT desires (Morrison, 2015) such as choosing suboptimal choices to protect personal welfare.

3. Hypothesis development

3.1 TMT ambition

TMT ambition refers to pressure to meet difficult-to-achieve performance targets and pursue high-risk/high-return strategies (Griffith *et al.*, 2006; Sitkin *et al.*, 2011). SC managers might perceive personal earnings and job security at risk when ambitious targets cannot be reached (Braz *et al.*, 2011; Jensen and Meckling, 1976). Under such circumstances, the SC manager is likely to be blamed (Rowe *et al.*, 2005), because negative performance is often deflected from top leaders to middle managers (Gomez-Mejia *et al.*, 2001; Johnson *et al.*, 1996). Indeed, scapegoating a subordinate is a well-documented phenomenon (Gomez-Mejia *et al.*, 2001). Instead of considering whether the targets are realistic, TMTs may simply attribute failure to ineffective SC management.

Furthermore, the boundary-spanning nature of the supply chain function transfers high levels of uncertainty to its leader, especially when pursuing ambitious goals. SC managers have to deal with firms that often have different business philosophies, organizational cultures, and objectives to perform their jobs (Mentzer *et al.*, 2001). While this can be advantageous, it also creates inherent threats to successfully managing inter-firm activities due to the increasing complexity of supply chains (de Leeuw *et al.*, 2017). As a result, SC managers are exposed to considerable contractual moral hazard from supply chain partners, where buyer and supplier decide “how much effort to exert by trading off the cost of their effort against the benefits that they will obtain” (Corbett *et al.*, 2005, p. 653). Thus, SC managers may perceive high uncertainties to comply with the ambitious targets associated with the complexity of supply chain management, which result in higher perceived compensation and employment risks:

- H1a.* The more ambitious the targets formulated by top managers, the greater the compensation risk the SC manager perceives.
- H1b.* The more ambitious the targets formulated by top managers, the greater the employment risk the SC manager perceives.

3.2 The supply chain's strategic importance

The strategic importance of the supply chain is defined as the extent to which top managers consider the supply chain as a fundamental function of corporate strategy (Paulraj *et al.*, 2006; Shi and Yu, 2013). We postulate that the strategic importance of the supply chain reduces the SC manager's perceived risks of compensation and employment. First, as the strategic importance of the supply chain increases, the SC manager can gain access to more resources that facilitate the attainment of performance targets (Pfeffer and Salancik, 1978; Ou *et al.*, 2014). Second, if the supply chain is part of the firm's “technical core,” its manager will have greater influence horizontally (with peers) and vertically (with superiors) (Ahearne *et al.*, 2014). Being part of the “core” confers power on managers to influence firm decisions (Barney, 1991) and consequently reduces the likelihood of poor performance reviews (Thornton *et al.*, 2016).

Finally, firms that emphasize the supply chain's strategic importance tend to focus on long-term objectives (Fawcett and Magnan, 2002). Without immediate pressure to meet short-term goals, SC managers are more likely to evaluate the long-term implications of their decisions, be more proactive, and put effort into projects that can ensure competitiveness

(Gore and Cross, 2006). These actions contribute to positive performance reviews, and therefore, reduce perceived compensation and employment risks:

H2a. The higher the strategic importance of the supply chain, the lower the compensation risk the SC manager perceives.

H2b. The higher the strategic importance of the supply chain, the lower the employment risk the SC manager perceives.

3.3 Mitigating effects of the supply chain's strategic importance

The risks an SC manager perceives when working for an ambitious TMT is likely moderated by the strategic importance of the supply chain function. Specifically, we argue that SC strategic importance weakens the association between TMT ambition and perceived risks.

First, the SC manager feels more confident to achieve ambitious targets when the supply chain function is vital to the firm. Top managers should allocate necessary resources to critical functions, as this reflects the most cost-effective means to achieve firm targets (Ahearne *et al.*, 2014). As a result, organizational support for supply chain initiatives helps to accomplish ambitious goals (Way *et al.*, 2016), thereby reducing the effects of ambitious targets on SC manager's perceived risks.

Second, when the supply chain's strategic importance is high, a more egalitarian relationship should emerge between the TMT and SC managers (Stainback *et al.*, 2010). It may manifest itself in a lower likelihood of scapegoating, more benign interpretation of weak results, more agreement on performance targets, and/or more tolerance for performance variations (Shore and Tetrick, 1994). The SC manager would have more leverage to explain how failure beyond his control may occur, and more room to negotiate for additional time and resources to accomplish daunting goals. TMT members might also reevaluate and adjust ambitious targets, thereby reducing SC managers' perceived risks (Pfeffer and Salancik, 1978). For instance, in a study on reciprocity in manager-subordinate relationships, Uhl-Bien and Maslyn (2003) found that relationship quality, reflected by leaders' benign judgment on subordinates, is associated with their mutual interests (particularly the overall prosperity of the firm).

Third, as supply chain is considered as a vital process, the SC manager could perceive lower compensation and employment risks because TMT would be more willing to provide cooperation, assistance, and mentoring to SC Managers in order to "stabilize" firm performance. The literature suggests that decisions regarding vital processes can become sufficiently complex and political (Thornton *et al.*, 2016) that they may generate "a vortex into which all are swept" (Hickson *et al.*, 1986, p. 240). Top leaders and SC managers are aware of the disruptive effects (Miller *et al.*, 1996). Both would attempt to make supply chain operations less uncertain, which translates into reduced SC manager risk-bearing. Also, SC managers tend to get additional information through "contact windows" (e.g. formal and informal meetings) to learn what the TMT thinks and expects (Hoon, 2007) when the supply chain is vital. This engenders an accurate estimate of upcoming targets and helps the manager prepare his unit to achieve those targets. As a result, the impact of ambitious targets on the perceived compensation and employment risks diminishes. This argument is consistent with middle manager studies which suggest that high self-evaluation generated by the recognized importance of their functions motivates middle managers to achieve superior performance (Erez and Judge, 2001; Judge *et al.*, 1998):

H3a. The positive association between ambitious targets and perceived compensation risk weakens as the supply chain's strategic importance increases.

H3b. The positive association between ambitious targets and perceived employment risk weakens as the supply chain's strategic importance increases.

Our theoretical model is summarized in Figure 1.

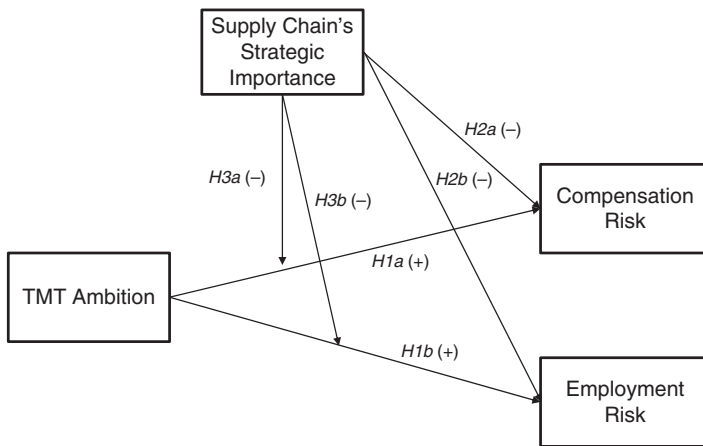


Figure 1. Conceptual model

4. Methodology

4.1 Research design, sample selection, and data collection

Information on SC manager compensation and evaluation is usually considered confidential, so it is difficult to obtain; unlike the case for CEOs, the data are not publicly available. This study thus combined surveys and interviews with SC managers and HR managers as well as secondary data in order to reduce source bias and enhance the validity of the results.

4.1.1 *Survey data.* The target population was composed primarily of Spanish firms and subsidiaries of multinational companies operating in Spain. A three-member panel with a minimum of five-year experience in supply chain management and knowledge of the Spanish market selected 932 firms from an initial list of 5,000 firms listed in the respected Spanish business periodical *Actualidad Economica*. These individuals are the members of the Supply Chain Management Interest Group; a discussion forum composed of executives from Spanish and multinational firms sponsored by a European Business School. This expert panel had two selection criteria: the firms operate in manufacturing industries and they are all medium to large sized. Service firms (e.g. auditing and financial services) were excluded in this process because they generally lack a tangible resource or because their supply chain operations are menial (Chase *et al.*, 2006). Firms with 10 or fewer employees were also excluded because the characteristics of a small organization could make the SC manager-TMT interaction less meaningful.

We followed Dillman's (2000) prescriptions to collect survey data. We conducted a thorough literature review of corporate governance and behavioral agency theory and complemented those insights with in-depth interviews with five SC managers. The latter helped us understand how they interact with their top managers as well as their companies' compensation systems. Their input was essential to develop our preliminary survey. We next pretested this preliminary survey to ensure that the questions were properly understood. Three academics, seven SC managers, and two supply chain consultants participated in the pilot test. The academic participants are experts in conducting survey-based research, whereas the practitioner participants had extensive supply chain management experience (greater than seven years). All closely reviewed and critiqued the pilot survey and offered several suggestions for improving its wording, design, and administration. Finally, we sent the definitive survey to the sample members in 2008, along with a cover letter explaining the purpose of the study and the assurance of anonymity for respondents.

The data collection process yielded 133 usable responses, with a 14.3 percent response rate (133/932). This rate compares favorably with other studies in supply chain management (e.g. Modi and Mabert's (2007) work had a response rate of 8.5 percent) and corporate governance (e.g. Brewster *et al.*'s (2008) work had a response rate between 15 and 22 percent during their study periods), and in the Spanish context (e.g. Cruz *et al.*'s (2010) work had a response rate of 11.0 percent). Table II reports the profiles of participating firms.

To ascertain whether respondents were knowledgeable about the criticality of their function, line of authority, and decision making, we called the selected companies to identify the person responsible for supply chain operations and sent a cover letter stating the requirements for a respondent (i.e. a respondent should be the person most knowledgeable about the supply chain operations in his/her company and should be in a top hierarchical position). These steps gave us confidence that respondents had in-depth knowledge and authority within the firm, and that they interacted with the TMT. The most common titles of respondents included SC manager (58 percent), purchasing/logistics/supply chain director (22 percent), manufacturing/logistics coordinator and others (20 percent). The reader should note that during our phone calls there were several cases in which several departments were involved in supply chain management and, thus, we surveyed the archetypical function manager.

We next contacted HR managers at each participating company to cross-validate the data. We asked HR managers about the compensation and employment risks of their SC managers. We received responses from 26 of the 133 participating firms (response rate = 19.54 percent). Despite our persistent effort (we approached each of the firms by phone), a majority of HR managers declined to participate due to internal policies.

	Frequency (%)
<i>Number of employees</i>	
10-50	13 (9.8)
51-100	13 (9.8)
101-500	72 (54.1)
501-1,000	19 (14.3)
> 1,000	16 (12.0)
Total	133 (100.0)
<i>Respondent position</i>	
Director	29 (21.8)
Manager	77 (57.9)
Coordinator and others	27 (20.3)
Total	133 (100.0)
<i>Industry sector</i>	
Food and beverage	31 (23.3)
Chemical and pharmaceutical	30 (22.6)
Automotive	27 (20.3)
Other industries	45 (33.8)
Total	133 (100.0)
<i>Annual sales (million euros)</i>	
0-20	5 (3.8)
20-50	33 (24.8)
50-99	49 (36.8)
100-500	39 (29.3)
> 500	7 (5.3)
Total	133 (100.0)

Table II.
Profile of the sample

They noted that compensation and employment issues are strictly confidential. The small size of this data set prevented us from running sophisticated analyses. We explain how the data were used in Section 4.3.

4.1.2 Archival data. We collected information for 133 participating firms from the “Sistemas de Análisis Balances Ibéricos” (SABI) database (similar to the COMPUSTAT database in the USA). This database includes financial information, age, industry sector, and other miscellaneous data for companies operating in Spain. This database allowed us to cross-validate some survey-based information (e.g. firm size), compute some control variables (e.g. firm’s past performance), and assess nonresponse bias. Please note that we collected SABI data for the 2003-2007 period.

First, we cross-validated the firm demographic information using the 2007 SABI data and the survey data. The tests did not show any significant differences for size, financial rates, or industry membership, supporting the validity of our survey data. Second, SABI databases provided information to compute several control variables. For instance, to calculate firm size, we used the 2007 SABI database, while for a firm’s past performance we used the 2003-2007 databases (see Subsection 4.3 for further details). Our industry dummy variables come from the industry classification reported by each participating firm in the 2007 SABI database. Third, we assessed nonresponse bias by testing the differences between respondents ($n = 133$) and nonrespondents ($n = 799$) (Lambert and Harrington, 1990), using the 2007 SABI database. The t -tests showed no significant difference for firm size (number of employees) ($p = 0.19$) and return on assets (ROA) ($p = 0.09$), and a χ^2 -test showed no significant differences for the industry sector ($\chi^2 = 8.09$, $df = 6$, $p > 0.05$).

4.2 Common method bias

We examined common method bias in two ways. First, we used procedural remedies: we protected respondent anonymity, scrambled scale items for theoretical constructs, reduced item ambiguity via pilot test, and obtained survey data about risk-bearing from two sources when possible (Podsakoff *et al.*, 2003). Second, we deployed statistical remedies using the CFA marker technique (Richardson *et al.*, 2009). We used cost benefit as the latent marker variable. This construct includes four items measuring reduction of production costs, indirect costs, labor costs, and total costs. The correlations between our theoretical constructs and the marker variable are all below 0.162 and insignificant. The shared variance between the marker construct and theoretical constructs, which is believed to be a function of common method variance (CMV), is captured by modeling the latent marker construct with paths to each of its own unique indicators as well as the theoretical construct indicators (Richardson *et al.*, 2009). We posit comparing fit between a model in which all marker construct indicators are freely estimated ($\chi^2(115) = 164.09$, CFI = 0.96, TLI = 0.94, RMSEA = 0.06, SRMR = 0.05) and a model in which only the marker construct’s own indicators are freely estimated but the indicators of theoretical constructs are constrained to zero ($\chi^2(125) = 174.65$, CFI = 0.955, TLI = 0.945, RMSEA = 0.055, SRMR = 0.050) as a test for detecting CMV. The χ^2 difference (10.56) is not statistically significant with 10 df, suggesting that CMV is not detected and thus common method bias should not be a concern.

4.3 Measurement development and assessment

The measures used in the survey were adopted from well-established constructs in the literature. We refined them through in-depth discussion during the pilot test. The response format for all items consisted of a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

We measured TMT ambition based on previous research by Griffith *et al.* (2006) and Matsuno *et al.* (2002). It captured the pressures exerted by the TMTs on SC managers through

setting ambitious targets. We measured the strategic importance of the supply chain based on early research in organization theory (Pfeffer and Salancik, 1978; Barney, 1991), later works by supply chain scholars (Mentzer *et al.*, 2001; Chen and Paulraj, 2004), and feedback obtained from the pilot test to assess the extent to which the SC managers believed that top management considered the supply chain function vital to attaining strategic objectives.

We operationalized compensation risk and employment risk with two single-item measures. We acknowledge that multiple-item measures are advisable when tapping complex and abstract constructs, since they improve the content validity of the measures (Kline, 2010). However, some suggest that a well-performing direct question is preferable if the single item demonstrates predictive power and a general judgment suffices (Saris *et al.*, 2013; Saris and Gallhofer, 2007; Bergkvist and Rossiter, 2007). The pilot test participants advised us to use direct questions, given the sensitivity of the theme. Inordinate cross-examination might result in a low response rate or missing data due to respondent anxiety about providing sensitive information. Furthermore, the two questions being asked are personal, direct and specific rather than broad, abstract psychological constructs with multiple nuances (e.g. job satisfaction). We thus opted for a single direct, concrete question for each measure.

Compensation risk measured the degree to which the SC manager's base pay might be subject to losses. Base pay is the predominant source of income for middle managers because other pay options (e.g. stock options) are generally reserved for CEOs and TMTs (Devers *et al.*, 2008). On average, base pay represents 96 percent of total pay for supply chain analysts, 93 percent for SC managers, and 89 percent for supply chain directors in the USA[2]. Pilot test participants indicated these percentages are likely higher in Spain. This is consistent with the fact that the provision of multiple forms of variable pay is more prevalent in the USA than in Europe (Gomez-Mejia *et al.*, 2010). As noted earlier, base pay is used by managers to cover essential expenses, so risk to base pay is more important than risk to variable pay (Larraza-Kintana *et al.*, 2007; Wiseman and Gomez-Mejia, 1998).

Employment risk was measured by a reverse-scored item: the degree to which the SC manager met performance targets during the most recent review. There is a general consensus among performance appraisal scholars that poor performance increases the likelihood of turnover (Gomez-Mejia *et al.*, 2009) whether voluntary or involuntary (Hom *et al.*, 2012). Scholars have used the decline in company stock share price and ROA as a proxy for CEO employment risk (Martin *et al.*, 2013) and not meeting mid-year performance target as a proxy for middle manager employment risk (Kempf *et al.*, 2009). In other words, meeting performance targets is an important indicator of employment risk.

To further validate our measures, we calculated an inter-rater agreement for the two measures based on matched HR and SC managers responses ($n = 26$). The correlations showed that they shared similar perceptions concerning whether there were risks to annual base salary for SC managers ($r = 0.79$; $p < 0.001$), and whether the evaluation system was based on meeting objective performance targets for SC managers ($r = 0.73$, $p < 0.001$).

We included several control variables. The first set of controls pertained to firm characteristics: firm size (number of employees in 2007), past performance (mean ROA for the 2003-2007 period), and prospective risk orientation. The first two variables were gathered from the SABI database while the third was gathered from the survey. Established firms with a large number of employees and better performance may exhibit higher employment stability than smaller, less productive firms (Anderson *et al.*, 2000). SC managers at such firms would perceive lower compensation and employment risk. Prospective risk orientation gauged the extent to which the firm's top managers embraced opportunities rather than being trapped by problems. Firms that focus on opportunities are

likely to embrace risk and understand failure, ultimately putting less pressure on SC managers (Chen and Paulraj, 2004).

The second set of control variables referred to industry membership. The 2007 SABI database used the categorization developed by Spain's National Institute of Statistics, and each firm self-reported its industry membership. As the samples in some industry sectors were small, we grouped the 62 registered categories into four clusters: food and beverage (23.3 percent), chemical and pharmaceutical (22.6 percent), automotive (20.3 percent), and others (33.8 percent). Because each sector was treated as a dummy variable, the last cluster was omitted from the analysis.

The third set included demand uncertainty and demand volatility. Demand uncertainty captured fluctuations in product demand (Chen and Paulraj, 2004). Demand volatility captured changing customer preferences, the rate of product obsolescence, and the volatility of the sales volume (Ganesan, 1994). Dynamic markets could transfer additional risks to SC managers because of the perceived difficulty of achieving targets (Van Asselt, 2000).

The fourth set of control variables represented the competitive priority (Chen and Paulraj, 2004). SC managers in a firm focused on launching innovative products will likely perceive higher compensation and employment risk. We considered four competitive priorities – cost reduction, quality improvement, customer satisfaction, and innovation – and created three dummy variables to represent the four categories, with cost reduction acting as a baseline.

The last set of control variables captured individual characteristics that may affect risk perception. We included task area to control for the specific area that the respondent is responsible for (i.e. purchasing, logistics, or manufacturing; Wisner *et al.*, 2004; Mentzer *et al.*, 2008). We also added job rank. High ranking managers often have better chance to learn what top leaders want owing to frequent communication through formal and informal channels and, thus, will perceive less risk because they are better prepared compared to low ranking managers.

5. Results

We conducted a confirmatory factor analysis to assess the validity of our multi-item scales. The model produced a good fit: $\chi^2(71) = 106.74$, $\chi^2/df = 1.50$, CFI = 0.93, TLI = 0.92, RMSEA = 0.06, and SRMR = 0.05. All factor loadings were statistically significant and greater than 0.60. The values of average variance extracted (AVE) were above 0.5. All Cronbach's α s are above 0.70 and composite reliabilities (CRs) exceed 0.70 threshold, suggesting good scale reliability (Hair *et al.*, 1998). Table III reports the survey items along with the Cronbach's α s, CRs, and AVEs.

Table IV provides means, standard deviations, and correlations. We examined normality and multicollinearity. All variables' residuals approximated a normal distribution except for firm size, which was transformed by taking its logarithm. In our study, all VIF factors are all below 2, suggesting that multicollinearity was not a problem. We centered the predictor and the moderator (Aiken and West, 1991) before creating the interaction term and then performed hierarchical regression analysis. We reported unstandardized β (and its standard error) because when interaction is included, the β coefficient of the interaction term is not properly standardized and thus not interpretable. Tables V and VI report the regression results.

No counterintuitive effects of control variables were found. Nonetheless, firms pursuing a customer service-oriented strategy appear to pose lower employment risk on SC managers. This is not surprising because the replacement of a middle manager may hurt customer service quality as it takes time for the successor to develop the understanding of customers.

H1 predicts a positive association between TMT ambition and compensation and employment risks. TMT ambition revealed a positive association with compensation risk ($\beta = 0.302$, $p < 0.05$). *H1a* was supported. When it came to employment risk, the TMT

Factor and scale items	Std. loading	SE	t-value	Measurement items ^a Supporting literature	
<i>Demand uncertainty</i> : CR = 0.88, AVE = 0.65, $\alpha = 0.83$					
Please indicate the extent to which					
our master production schedule has a high percentage of variation in demand	0.849	0.043	19.74	Chen and Paulraj (2004)	
our demand fluctuates drastically from week to week	0.838	0.038	22.05		
our supply requirements vary drastically from week to week	0.633	0.071	8.92		
we keep weeks of inventory of the critical material to meet the changing demand	0.708	0.068	10.41		
the composition of the demand is difficult to predict	0.828	0.052	15.92	Ganesan (1994), Van Asselt (2000)	
<i>Demand volatility</i> : CR = 0.83, AVE = 0.63, $\alpha = 0.75$					
Please indicate the extent to which					
the volume of sales of our industry is very volatile	0.858	0.104	8.25		
the needs of our clients change very often	0.714	0.093	7.68	Griffith <i>et al.</i> (2006), Matsuno <i>et al.</i> (2002), Interviews	
the rate of product obsolescence is high in our industry	0.794	0.098	8.10		
<i>TMT ambition</i> : CR = 0.86, AVE = 0.67, $\alpha = 0.73$					
Please indicate the extent to which your company's top managers					
encourage creative rather than traditional approaches to meet ambitious goals	0.818	0.036	22.72	Pfeffer and Salancik (1978), Mentzer <i>et al.</i> (2001), Chen and Paulraj (2004), Interviews	
are very aggressive and competitive in establishing performance goals	0.838	0.019	49.42		
push the launching of innovative strategies, knowing that some will fail	0.791	0.034	23.26		
<i>Supply chain's strategic importance</i> : CR = 0.89, AVE = 0.72, $\alpha = 0.80$					
Please indicate the extent to which your company's top managers					
consider the supply chain to be a vital part of the corporate strategy	0.848	0.015	56.53	Chen and Paulraj (2004)	
emphasize the strategic role of the supply chain management function	0.897	0.022	40.77		
believe the supply chain function is essential for the firm to maintain a sustainable competitive advantage	0.801	0.020	40.05		
<i>Firm prospective risk orientation</i>					
Please indicate the extent to which					
the management tends to talk more about opportunities than constraints	–	–	–		

Table III.
Measurement scales

(continued)

Factor and scale items	Std. loading	SE	Measurement items ^a	
			t-value	Supporting literature
<i>Compensation risk</i> Please indicate the degree to which your compensation (i.e. base pay) is at risk	–	–	–	Interviews; Gomez-Mejia <i>et al.</i> (2010)
<i>Employment risk</i> Please indicate the degree to which you have met expected performance targets in the most recent performance review	–	–	–	Gomez-Mejia <i>et al.</i> (2009), Hom <i>et al.</i> (2012), Kempf <i>et al.</i> (2009); Interviews

Note: ^aMeasurement model: $\chi^2(71) = 106.74$, $\chi^2/df = 1.50$, CFI = 0.93, TLI = 0.92, RMSEA = 0.06, SRMR = 0.05

Table III.

ambition appeared to be irrelevant ($\beta = -0.120$, ns). *H1b* was not supported. We also tested for a curvilinear effect because TMT ambition may have diminishing returns (setting very ambitious targets might not increase risk-bearing any further). The results did not support a curvilinear effect.

H2 suggests that the supply chain's strategic importance is negatively associated with compensation and employment risks. As hypothesized, it revealed a negative association with employment risk (*H2b*, $\beta = -0.216$, $p < 0.05$), but contrary to our expectations it had a positive association with compensation risk (*H2a*, $\beta = 0.406$, $p < 0.05$).

H3 predicts that the positive association between TMT ambition and risk bearing will be weaker when the supply chain's strategic importance is high. Surprisingly, the interaction effects of TMT ambition \times SC strategic importance were not significant for compensation risk ($\beta = 0.015$, ns) or employment risk ($\beta = -0.031$, ns). *H3a* and *H3b* were not supported. As a robustness check, we conducted a test of significance for the difference in the simple slopes to assess the β_{diff} of TMT ambition at two levels (mean ± 1 SD) of the moderator (Robinson *et al.*, 2013). The results show that $\beta_{diff} = -0.003$ (p -value = 0.99) when compensation risk is the dependent variable and $\beta_{diff} = 0.136$ (p -value = 0.33) when employment risk is the dependent variable. These are consistent with our interaction analysis.

6. Discussion

A few findings of this study deserve discussion. First, based on BAM, ambitious targets should increase the risk of job security (Wiseman and Gomez-Mejia, 1998). However, our finding does not support this prediction. The characteristics of the supply chain function may help explain why SC managers perceive higher levels of job security. Net job growth for supply chain professionals is higher than the average in the USA (Ruamsook and Craighead, 2014). In Europe, talent shortage is also a major concern (Diaz and Tomas, 2002). Favorable job market conditions thus reduce SC managers' risk of dismissal even when they work for ambitious TMTs. While BAM is a prominent executive compensation model, our research challenges its premises due to the favorable labor conditions that SC managers enjoy.

Second, our findings suggest that SC managers perceive more (rather than less) compensation risk when their function is considered vital. This suggests that conventional wisdom developed for top leaders may not be true for middle managers. For instance, Pfeffer and Salancik's (1978) seminal work on resource dependence suggested that strategically important function would control resources because other functions rely on it to carry out their tasks (Thornton *et al.*, 2016). As a result, the function can establish rules that convey little risk to its leaders. Our results suggest the opposite: the higher the SC

Table IV.
Means, standard
deviations, and
correlations^a

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Firm size	5.53	1.43																
2 Firm recent past performance	1.82	1.17	-0.48**															
3 Firm prospective risk orientation	3.85	1.02	-0.07	0.01														
4 Food and beverage	0.23	0.42	-0.14	0.27**	0.19*													
5 Automotive	0.20	0.40	-0.04	0.01	-0.02	-0.27**												
6 Chemical and pharmaceutical	0.23	0.42	0.06	0.01	-0.24**	-0.19*	-0.17											
7 Demand uncertainty	3.41	0.79	-0.06	-0.07	0.03	0.03	0.11	-0.14										
8 Demand volatility	3.35	0.75	0.06	-0.04	0.10	0.07	-0.09	-0.03	0.05									
9 Competitive priority quality	0.73	0.44	-0.03	-0.24**	-0.16	-0.15	-0.18*	0.15	0.01	0.09								
10 Competitive priority innovation	0.63	0.49	-0.11	0.08	0.08	0.06	-0.05	0.06	-0.13	0.25**	0.39**							
11 Competitive priority-customer service	0.80	0.40	-0.14	0.04	0.21*	0.05	-0.18*	-0.01	-0.05	0.15	0.22*	0.49**						
12 Task area	1.73	1.21	0.27**	-0.071	-0.048	0.001	-0.11	-0.18*	-0.17	-0.02	0.11	0.00	-0.05					
13 Job rank	2.26	0.46	0.03	-0.17*	0.07	0.07	-0.06	-0.10	-0.10	-0.02	0.07	0.10	0.07	0.22*				
14 TMT ambition	3.29	0.85	-0.10	-0.00	0.49**	0.11	-0.15	0.04	-0.00	0.20*	-0.16	0.11	0.22*	-0.08	0.11			
15 Supply chain's strategic importance	3.77	0.90	-0.07	-0.06	0.41**	0.07	0.16	-0.12	0.11	0.12	0.07	0.03	0.07	0.09	0.13	0.21*		
16 Compensation risk	3.16	1.10	0.14	-0.15	0.04	0.00	-0.07	-0.01	0.04	0.02	0.04	-0.07	-0.04	0.08	-0.04	0.20*	0.21*	
17 Employment risk	2.85	0.64	-0.03	0.04	0.02	-0.02	0.06	0.05	0.02	-0.15	-0.15	-0.01	-0.22*	0.13	0.03	-0.16	-0.18	-0.31**

Notes: ^aValues reported are based on raw data, except for firm size which was log-transformed to correct for skewness. **p* < 0.05; ***p* < 0.01; ****p* < 0.001 (two-tailed)

	DV: compensation risk						
	Base model		Model 1		Model 2		VIF
	β	SE	β	SE	β	SE	
Intercept	3.233**	1.101	1.855	1.123	1.183	1.138	
<i>Control variables</i>							
Firm size	0.026	0.108	0.100	0.105	0.101	0.106	1.216
Firm recent past performance	-0.049	0.107	-0.060	0.102	-0.061	0.103	1.197
Firm prospective risk orientation	0.045	0.108	-0.172	0.120	-0.176	0.125	1.745
Food and beverage	0.106	0.306	0.215	0.296	0.214	0.298	1.671
Chemical and pharmaceutical	-0.142	0.309	-0.098	0.309	-0.095	0.312	1.740
Automotive	0.139	0.303	0.302	0.293	0.298	0.297	1.662
Demand uncertainty	0.046	0.137	0.019	0.131	0.020	0.132	1.106
Demand volatility	0.012	0.145	-0.056	0.140	-0.059	0.143	1.210
Competitive priority: quality	-0.080	0.281	-0.033	0.281	-0.034	0.282	1.638
Competitive priority: innovation	-0.256	0.273	-0.241	0.263	-0.241	0.264	1.699
Competitive priority: customer service	0.059	0.320	-0.045	0.308	-0.042	0.311	1.585
Task area	0.138	0.099	0.118	0.096	0.117	0.097	1.297
Job rank	-0.188	0.269	-0.268	0.258	-0.269	0.260	1.166
<i>Main effects</i>							
TMT ambition			0.298*	0.133	0.302*	0.138	1.654
Supply chain's strategic importance			0.400*	0.156	0.406*	0.166	1.490
<i>Moderator effect</i>							
TMT ambition \times supply chain's strategic importance					0.015	0.136	1.328
R^2 (%)	5.1		15.2		15.2		
p -Value (change)			0.003		0.911		

Table V. Effects of TMT ambition and the supply chain's strategic importance on compensation risk

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

function's strategic importance, the more compensation risk the SC manager perceives. One explanation is that SC managers may perceive low likelihood of a raise (since meeting supply chain targets is a challenging job), thus eroding their base salary relative to inflation, prior earnings, or the going rate in the labor market. Alternatively, it is possible that TMTs become less likely to replace SC managers when supply chain prominence increases. Frozen base pay, low raises, or even pay cuts are among the few remaining ways to penalize SC managers monetarily. TMTs are thus more likely to use compensation-related approaches, inducing perceived compensation risk.

Third, our results did not support the idea that supply chain's strategic importance can mitigate the SC manager's perceived risks as a result of working for an ambitious TMT. We believe our arguments based on BAM are strong, but there may be alternative explanations. For instance, the strategic importance of the supply chain function and the associated high-performance expectations could put even more pressure on SC managers. Under such circumstances, supply chain criticality could increase (rather than weaken) the perceived risks. We also speculate that SC managers may not receive sufficient resources and coaching in practice, thereby reducing their confidence to meet ambitious targets. Nonetheless, more research is needed to further explore how these two mechanisms are interrelated.

7. Conclusion

7.1 Theoretical contributions

This research contributes to the understanding of the antecedents of SC managers' perceived compensation and employment risks. Scholars have repeatedly shown the

	Base model		DV: employment risk				
	β	SE	Model 1		Model 2		VIF
	β	SE	β	SE	β	SE	
Intercept	3.245***	0.666	3.727***	0.682	3.765***	0.694	
<i>Control variables</i>							
Firm size	0.239	0.312	0.106	0.316	0.104	0.317	1.214
Firm recent past performance	-0.059	0.066	-0.044	0.065	-0.041	0.065	1.294
Firm prospective risk orientation	0.052	0.065	0.128	0.072	0.136	0.076	1.695
Food and beverage	0.077	0.196	0.011	0.197	0.010	0.198	1.918
Chemical and pharmaceutical	0.102	0.190	0.121	0.201	0.114	0.203	2.023
Automotive	-0.051	0.185	-0.122	0.185	-0.113	0.187	1.807
Demand uncertainty	-0.003	0.086	0.022	0.085	0.020	0.085	1.188
Demand volatility	-0.104	0.087	-0.058	0.088	-0.049	0.092	1.312
Competitive priority: quality	-0.121	0.168	-0.146	0.174	-0.145	0.175	1.722
Competitive priority: innovation	0.223	0.164	0.201	0.163	0.199	0.164	1.682
Competitive priority: customer service	-0.420*	0.193	-0.364	0.192	-0.373	0.194	1.510
Task area	0.086	0.090	0.029	0.092	0.027	0.092	1.357
Job rank	0.023	0.169	0.128	0.171	0.134	0.173	1.519
<i>Main effects</i>							
TMT ambition			-0.109	0.085	-0.120	0.090	1.936
Supply chain's strategic importance			-0.202*	0.101	-0.216*	0.109	1.583
<i>Moderator effect</i>							
TMT ambition \times supply chain's strategic importance					-0.031	0.087	1.490
R^2 (%)	13.1		18.5		18.6		
p -Value (change)			0.050		0.721		

Table VI.
Effects of TMT
ambition and the
supply chain's
strategic importance
on employment risk

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

negative outcomes of these risks in corporate governance (Devers *et al.*, 2008; Martin *et al.*, 2013; Larraza-Kintana *et al.*, 2007) and supply chain management literature (Villena *et al.*, 2009). However, little attention has been given to their antecedents. We take a step into this underexplored research area. Our findings suggest that ambitious targets drive compensation risk but not employment risk. The supply chain function's strategic importance, on the other hand, decreases employment risk but increases compensation risk.

Our multidisciplinary research provides a linkage between the corporate governance and supply chain management literature. Prior corporate governance studies have focused almost exclusively on CEOs and TMTs (e.g. Mantere, 2008; Martin *et al.*, 2013) and ignore the interaction between TMTs and middle managers (Raes *et al.*, 2011; Simsek *et al.*, 2015). Supply chain studies have mainly examined the behaviors of SC managers (Bendoly and Swink, 2007; Ellis *et al.*, 2010) but rarely examine how top leaders can potentially align SC managers' interests with those of the firm. We bring attention to the TMT-SC manager interaction and urge that more investigation is needed to better understand supply chain strategy implementation. Given the performance implications of employee responses to strategies, it is important to understand various mechanisms top leaders can use to affect employees (Ou *et al.*, 2014).

This study responds to repeated calls for the analysis of both TMT and functional managers (Mantere, 2008; Raes *et al.*, 2011; Simsek *et al.*, 2015). It also extends the BAM (thus far used mainly on CEOs and TMTs) to SC managers and suggests including functional strategic importance as a mechanism to mitigate perceived risks. Thornton *et al.* (2016) showed how the political power of SC managers affects supply chain orientation. Our research extends this study by testing how the strategic importance of the supply chain

function can alter its managers' risk perceptions. The emerging behavioral operations literature focuses mainly on the psychological and social causes of manager behaviors (Ancarani *et al.*, 2013; Sarkar and Kumar, 2015). Our study suggests that the literature could be enhanced by studying causes originating with top managers who interact with SC managers. Our work complements the recent study by Ahearne *et al.* (2014) on the performance impact of middle managers. They argued that the "bottom-up" approach (action initiated by middle managers) is as important as the "top-down" approach. Our study suggests that "bottom-up" actions can be strongly affected by top leaders' management practices.

7.2 Managerial implications

While we did not explore all aspects of TMT-SC manager interaction, we point out that three ways TMTs can support SC managers in implementing corporate strategy. First, top managers should note that setting ambitious targets and acknowledgment of supply chain's criticality have differential impacts on compensation and employment risk. Therefore, these two types of risks should be considered separately when designing compensation and evaluation systems.

Second, our research shows that the SC managers perceive more compensation risk as the targets become more ambitious. High compensation risk could cause SC managers to make suboptimal decisions to safeguard their welfare. Thus, setting attainable, appropriate goals becomes a significant activity for the TMT. Appropriate performance targets may put compensation risk in a reasonable range that is neither too high to prevent risky-yet-beneficial decisions nor too low to allow nonfeasance. This is not a trivial task. It may require a trial and error period for top managers to identify the most appropriate performance targets.

Third, our research suggests that escalating the supply chain's strategic importance effectively offsets employment risk. This is not surprising because firms naturally want to retain the managers of critical functions to ensure the continuous implementation of corporate strategies and stabilize performance. Interestingly, we found that SC managers may still perceive high risk to base pay even if the supply chain is considered a cornerstone for corporate strategy. We suspect that top managers have been aggressively pushing SC managers to achieve organizational targets and penalizing them via pay cut when targets are not met. If this is the case, top managers may consider using other tools (e.g. employee engagement programs and non-financial awards) that bolster SC managers' perceived well-being – especially when replacing them is impractical.

7.3 Limitations and future research opportunities

We emphasized two ways that the TMT influences SC managers' perceived personal welfare but there may be others. Future studies might examine other factors such as leadership style or corporate culture. Future work should also take a bottom-up approach (e.g. Sbrana and Silvestrini, 2013) to strategy formulation (e.g. how the SC manager might influence the TMT's behavior) in addition to the top-down view taken in this study. The relative criticality of the supply chain compared to other functions and the potential collusion of functional managers against the TMT could also offer an interesting research opportunity. Also, we recognize that individual characteristics (e.g. informant age and tenure) could affect the perception of compensation and employment risk. Future research should examine how these individual characteristics add variance to the ones studied here.

Despite our persistent efforts to collect data from a second respondent, we received data from only 26 HR managers. Relatedly, we used single-item measures for our risk variables. It is difficult to persuade senior managers to answer multiple questions related to sensitive topics. Indeed, our pilot test panel mentioned that they would likely skip those questions or

simply choose not to complete the survey. We acknowledge these limitations and invite future research to improve the measures of perceived risks.

Because this research is cross-sectional, it cannot evaluate how the strategies formulated at the top get implemented, adjusted, or annulled over time by the actions and decisions of SC managers. Relatedly, our sample was composed of firm operating in Spain and, thus, we should be cautious to extrapolate our results to other countries. Finally, SC managers in Spain perceive low employment risk because (during the period of study) a layoff might be too costly for employers. This may not hold true in other countries or in the future.

Notes

1. For the sake of parsimony, we used the title of supply chain manager to encompass professionals responsible for purchasing, manufacturing, and logistics. These three key functions are the key elements of supply chain management (Wisner *et al.*, 2004; Mentzer *et al.*, 2008).
2. www.salary.com/ (accessed July 12, 2010).

References

- Ahearne, M., Lam, S.K. and Kraus, F. (2014), "Performance impact of middle managers' adaptive strategy implementation: the role of social capital", *Strategic Management Journal*, Vol. 35 No. 1, pp. 68-87.
- Aiken, L.S. and West, S.G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Sage, Thousand Oaks, CA.
- Ancarani, A., Di Mauro, C. and D'Urso, D. (2013), "A human experiment on inventory decisions under supply uncertainty", *International Journal of Production Economics*, Vol. 142 No. 1, pp. 61-73.
- Anderson, M.C., Banker, R.D. and Ravindran, S. (2000), "Executive compensation in the information technology industry", *Management Science*, Vol. 46 No. 4, pp. 530-548.
- Aranda, C., Arellano, J. and Davila, A. (2017), "Organizational learning in target setting", *Academy of Management Journal*, Vol. 60 No. 3, pp. 1189-1211.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-121.
- Bendoly, E. and Eckerdt, S. (2013), "Behavioral OM experiments: critical inquiry reawakening practical issues in research", in Giannoccaro, I. (Ed.), *Behavioural Issues in Operations Management: New Trends in Design, Management, and Methodologies*, Springer-Verlag, London, pp. 1-22.
- Bendoly, E. and Swink, M. (2007), "Moderating effects of information access on project management behavior, performance and perceptions", *Journal of Operations Management*, Vol. 25 No. 3, pp. 604-622.
- Bendoly, E., Perry-Smith, J.E. and Bachrach, D.G. (2010), "The perception of difficulty in project-work planning and its impact on resource sharing", *Journal of Operations Management*, Vol. 28 No. 5, pp. 385-397.
- Bendoly, E., Croson, R., Goncalves, P. and Schultz, K. (2010), "Bodies of knowledge for research in behavioral operations", *Production and Operations Management*, Vol. 19 No. 4, pp. 434-452.
- Bergkvist, L. and Rossiter, J.R. (2007), "The predictive validity of multiple-item versus single-item measures of the same constructs", *Journal of Marketing Research*, Vol. 44 No. 2, pp. 175-184.
- Bhattacharjee, A. (1998), "Managerial influences on intraorganizational information technology use: a principal-agent model", *Decision Sciences*, Vol. 29 No. 1, pp. 139-162.
- Boyd, B.K. (1994), "Board control and CEO compensation", *Strategic Management Journal*, Vol. 15 No. 5, pp. 335-344.
- Braz, R.G.F., Scavarda, L.F. and Martins, R.A. (2011), "Reviewing and improving performance measurement systems: an action research", *International Journal of Production Economics*, Vol. 133 No. 2, pp. 751-760.

- Brewster, C., Wood, G. and Brookes, M. (2008), "Similarity, isomorphism or duality? Recent survey evidence on the human resource management policies of multinational corporations", *British Journal of Management*, Vol. 19 No. 4, pp. 320-342.
- Brower, H.H., Lester, S.W., Korsgaard, M.A. and Dineen, B.R. (2009), "A closer look at trust between managers and subordinates: understanding the effects of both trusting and being trusted on subordinate outcomes", *Journal of Management*, Vol. 35 No. 2, pp. 327-347.
- Cain, M.D. and McKeon, S.B. (2016), "CEO personal risk-taking and corporate policies", *Journal of Financial and Quantitative Analysis*, Vol. 51 No. 1, pp. 139-164.
- Cantor, D.E., Morrow, P.C. and Blackhurst, J. (2015), "An examination of how supervisors influence their subordinates to engage in environmental behaviors", *Decision Sciences*, Vol. 46 No. 4, pp. 697-729.
- Chase, R.B., Jacobs, R.B. and Aquilano, N.J. (2006), *Operations Management for Competitive Advantage*, 11th ed., McGraw-Hill Irwin, New York, NY.
- Chen, I.J. and Paulraj, A. (2004), "Towards a theory of supply chain management: the constructs and measurements", *Journal of Operations Management*, Vol. 22 No. 3, pp. 119-150.
- Choo, A.S., Linderman, K.W. and Schroeder, R.G. (2007), "Method and psychological effects on learning behaviors and knowledge creation in quality improvement projects", *Management Science*, Vol. 53 No. 3, pp. 437-450.
- Christopher, M. (2005), *Logistics and Supply Chain Management: Creating Value-Added Networks*, 3rd ed., Pearson Education, London.
- Cole, R.E. (2011), "What really happened to Toyota?", *Sloan Management Review*, Vol. 52 No. 4, pp. 29-35.
- Corbett, C.J., DeCroix, G.A. and Ha, A.J. (2005), "Optimal shared savings contracts in supply chains: linear contracts and double moral hazard", *European Journal of Operational Research*, Vol. 163 No. 3, pp. 653-667.
- Cruz, C., Gomez-Mejia, L.R. and Becerra, M. (2010), "Perceptions of benevolence and the design of agency contracts: CEO-TMT relationships in family firms", *Academy of Management Journal*, Vol. 53 No. 1, pp. 69-89.
- de Leeuw, S., Grotenhuis, R. and van Goor, A.R. (2017), "Assessing complexity of supply chains: evidence from wholesalers", *International Journal of Operations & Production Management*, Vol. 33 No. 8, pp. 960-980.
- Devers, C.E., McNamara, G., Wiseman, R.M. and Arrfelt, M. (2008), "Moving closer to the action: examining compensation design effects on firm risk", *Organization Science*, Vol. 19 No. 4, pp. 548-566.
- Diaz, M.S. and Tomas, F.J.Q. (2002), "Technological innovation and employment: data from a decade in Spain", *International Journal of Production Economics*, Vol. 75 No. 3, pp. 245-256.
- Dillman, D.A. (2000), *Mail and Internet Surveys: The Total Design Method*, Wiley, New York, NY.
- Ellis, S.C., Henry, R.M. and Shockley, J. (2010), "Buyer perceptions of supply disruption risk: a behavioral view and empirical assessment", *Journal of Operations Management*, Vol. 28 No. 1, pp. 34-46.
- Erez, A. and Judge, T.A. (2001), "Relationship of core self-evaluations to goal setting, motivation, and performance", *Journal of Applied Psychology*, Vol. 86 No. 6, pp. 1270-1279.
- Fawcett, S.E. and Magnan, G.M. (2002), "The rhetoric and reality of supply chain integration", *International Journal of Physical Distribution & Logistics Management*, Vol. 32 No. 5, pp. 339-361.
- Ganesan, S. (1994), "Determinants of long-term orientation in buyer-seller relationships", *Journal of Marketing*, Vol. 58 No. 2, pp. 1-19.
- Giunipero, L., Handfield, R.B. and Eltantawy, R. (2006), "Supply management's evolution: key skill sets for the supply manager of the future", *International Journal of Operations & Production Management*, Vol. 26 No. 7, pp. 822-844.
- Goebel, D.L., Marshall, G.W. and Locander, W.B. (2003), "Enhancing purchasing's strategic reputation: evidence and recommendations for future research", *Journal of Supply Chain Management*, Vol. 39 No. 2, pp. 4-13.

- Gomez-Mejia, L., Berrone, P. and Franco-Santos, M. (2010), *Compensation and Organizational Performance: Theory, Research, and Practice*, M. E. Sharpe, New York, NY.
- Gomez-Mejia, L.R., Balkin, D.B. and Cardy, R. (2009), *Managing Human Resources*, Prentice Hall, Englewood Cliffs, NJ.
- Gomez-Mejia, L.R., Nunez-Nickel, M. and Gutierrez, I. (2001), "The role of family ties in agency contracts", *Academy of Management Journal*, Vol. 44 No. 1, pp. 81-95.
- Gomez-Mejia, L.R., Cruz, C., Berrone, P. and De Castro, J. (2011), "The bind that ties: socioemotional wealth preservation in family firms", *Academy of Management Annals*, Vol. 5 No. 1, pp. 653-707.
- González-Loureiro, M., Dabic, M. and Puig, F. (2014), "Global organizations and supply chain: new research avenues in the international human resource management", *International Journal of Physical Distribution & Logistics Management*, Vol. 44 Nos 8/9, pp. 689-712.
- Gore, J. and Cross, S.E. (2006), "Pursuing goals for us: relationally autonomous reasons in long-term goal pursuit", *Journal of Personality and Social Psychology*, Vol. 90 No. 5, pp. 848-861.
- Griffith, D.A., Noble, S.M. and Chen, Q. (2006), "The performance implications of entrepreneurial proclivity: a dynamic capabilities approach", *Journal of Retailing*, Vol. 82 No. 1, pp. 51-62.
- Gutierrez-Gutierrez, L.J., Barrales-Molina, V. and Kaynak, H. (2018), "The role of human resource-related quality management practices in new product development: a dynamic capability perspective", *International Journal of Operations & Production Management*, Vol. 38 No. 1, pp. 43-66.
- Hair, J.F. Jr, Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), *Multivariate Data Analysis*, Prentice Hall, Upper Saddle River, NJ.
- Hickson, D.J., Butler, R.J., Cray, D., Mallory, G.R. and Wilson, D.C. (1986), *Top Decisions: Strategic Decision-Making in Organizations*, Basil Blackwell, Oxford, Jossey-Bass, San Francisco, CA.
- Hom, P., Mitchell, T., Lee, T. and Griffith, R. (2012), "Reviewing employee turnover: focusing on proximal withdrawal states and an expanded criterion", *Psychological Bulletin*, Vol. 138 No. 5, pp. 831-858.
- Hoon, C. (2007), "Committees as strategic practice: the role of strategic conversation in a public", *Administration, Human Relations*, Vol. 60 No. 6, pp. 921-952.
- Hoskisson, R.E., Chirico, F., Zyung, J.D. and Gambeta, E. (2017), "Managerial risk taking: a multi-theoretic review and future research agenda", *Journal of Management*, Vol. 43 No. 1, pp. 137-169.
- Hulsmann, M., Grapp, J. and Li, Y. (2008), "Strategic adaptively in global supply chains: competitive advantage by autonomous cooperation", *International Journal of Production Economics*, Vol. 11 No. 1, pp. 14-26.
- Jensen, M. and Meckling, W. (1976), "Theory of the firm: managerial behavior, agency costs, and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360.
- Johnson, J.L., Daily, C.M. and Ellstrand, A.E. (1996), "Boards of directors: a review and research agenda", *Journal of Management*, Vol. 22 No. 3, pp. 409-438.
- Judge, T.A., Erez, A. and Bono, J.E. (1998), "The power of being positive: the relation between positive self-concept and job performance", *Human Performance*, Vol. 11 Nos 2-3, pp. 167-187.
- Kahneman, D. and Tversky, A. (1979), "Prospect theory: an analysis of decisions under risk", *Econometrica*, Vol. 47 No. 2, pp. 262-291.
- Katok, E. and Siemsen, E. (2011), "Why genius leads to adversity: experimental evidence on the reputational effects of task difficulty choices", *Management Science*, Vol. 57 No. 6, pp. 1042-1054.
- Kempf, A., Ruenzi, S. and Thiele, T. (2009), "Employment risk, compensation incentives and managerial risk taking: evidence from the mutual fund industry", *Journal of Financial Economics*, Vol. 92 No. 1, pp. 92-108.
- Kiessling, T., Harvey, M. and Akdeniz, L. (2014), "The evolving role of supply chain managers in global channels of distribution and logistics systems", *International Journal of Physical Distribution & Logistics Management*, Vol. 44 Nos 8/9, pp. 671-688.
- Kim, Y., Chen, Y. and Linderman, K. (2015), "Supply network disruption and resilience: a network structural perspective", *Journal of Operations Management*, Vols 33-34, pp. 43-59.

- Kline, R.B. (2010), *Principles and Practice of Structural Equation Modeling*, 3rd ed., The Guilford Press, New York, NY.
- Kuvaas, B., Shore, L.M., Buch, R. and Dysvik, A. (2017), "Social and economic exchange relationships and performance contingency: differential effects of variable pay and base pay", *International Journal of Human Resource Management*, available at: <http://dx.doi.org/10.1080/09585192.2017.1350734>
- Lambert, D.M. and Harrington, T.C. (1990), "Measuring nonresponse bias in customer service mail surveys", *Journal of Business Logistics*, Vol. 11 No. 2, pp. 5-25.
- Lambert, D.M., Garcia-Dastugue, S.J. and Croxton, K.L. (2008), "The role of logistics managers in the cross-functional implementation of supply chain management", *Journal of Business Logistics*, Vol. 29 No. 1, pp. 113-132.
- Larrazza-Kintana, M., Wiseman, R., Gomez-Mejia, L.R. and Welbourne, T.M. (2007), "Disentangling compensation and employment risks in a behavioral agency model of managerial risk taking", *Strategic Management Journal*, Vol. 28 No. 10, pp. 1001-1019.
- Lim, E.N.K. and McCann, B.T. (2014), "Performance feedback and firm risk taking: the moderating effects of CEO and outside director stock options", *Organization Science*, Vol. 25 No. 1, pp. 262-282.
- Lu, G. and Shang, G. (2017), "Impact of supply base structural complexity on financial performance: roles of visible and not-so-visible characteristics", *Journal of Operations Management*, Vols 53-56, pp. 23-44.
- Mangan, J. and Christopher, M. (2005), "Management development and the supply chain manager of the future", *International Journal of Logistics Management*, Vol. 16 No. 2, pp. 178-191.
- Mantere, S. (2008), "Role expectations and middle manager strategic agency", *Journal of Management Studies*, Vol. 45 No. 2, pp. 294-316.
- Martin, G., Wiseman, R. and Gomez-Mejia, L.R. (2013), "Executive stock options as mixed gambles: re-visiting the behavioral agency model", *Academy of Management Journal*, Vol. 56 No. 2, pp. 451-472.
- Matsuno, K., Mentzer, J.T. and Ozsomer, A. (2002), "The effects of entrepreneurial proclivity and market orientation on business performance", *Journal of Marketing*, Vol. 66 No. 3, pp. 18-32.
- Mentzer, J.T., Stank, T.P. and Esper, T.L. (2008), "Supply chain management and its relationship to logistics, marketing, production, and operations management", *Journal of Business Logistics*, Vol. 29 No. 1, pp. 31-46.
- Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D. and Zacharia, Z.G. (2001), "Defining supply chain management", *Journal of Business Logistics*, Vol. 22 No. 2, pp. 1-25.
- Merchant, K.A. and Van der Stede, W.A. (2011), *Management Control Systems: Performance Measurement, Evaluation and Incentives*, 3rd ed., Prentice Hall, Upper Saddle River, NJ.
- Miller, S.J., Hickson, D.J. and Wilson, D.C. (1996), "Decision-making in organizations", in Clegg, S.R., Hardy, C. and Nord, W. (Eds), *Handbook of Organization Studies*, Sage Publications, London, pp. 293-312.
- Modi, S.B. and Mabert, V.A. (2007), "Supplier development: improving supplier performance through knowledge transfer", *Journal of Operations Management*, Vol. 25 No. 1, pp. 42-64.
- Morrison, B. (2015), "The problem with workarounds is that they work: the persistence of resource shortages", *Journal of Operations Management*, Vols 39-40, pp. 79-91.
- Ogden, J.A., Petersen, K.J., Carter, J.R. and Monczka, R.M. (2005), "Supply management strategies for the future: a Delphi study", *Journal of Supply Chain Management*, Vol. 41 No. 3, pp. 29-48.
- Ou, A.Y., Tsui, A.S., Kinicki, A.J., Waldman, D.A., Xiao, Z. and Song, L.J. (2014), "Humble chief executive officers' connections to top management team integration and middle managers' responses", *Administration Science Quarterly*, Vol. 59 No. 1, pp. 34-72.
- Parker, D.W. and Russell, K.A. (2004), "Outsourcing and inter/intra supply chain dynamics: strategic management issues", *Journal of Supply Chain Management*, Vol. 40 No. 4, pp. 56-68.
- Paulraj, A., Chen, I.J. and Flynn, J. (2006), "Levels of strategic purchasing: impact on supply chain integration and performance", *Journal of Purchasing and Supply Management*, Vol. 12 No. 3, pp. 107-122.

- Pennings, J.M.E. and Smidts, A. (2003), "The shape of utility functions and organizational behavior", *Management Science*, Vol. 49 No. 9, pp. 1251-1263.
- Pepper, A. and Gore, J. (2015), "Behavioral agency theory: new foundations for theorizing about executive compensation", *Journal of Management*, Vol. 41 No. 4, pp. 1045-1068.
- Pfeffer, J. and Salancik, G. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, Harper and Row, London.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Raes, A.M.L., Heijltjes, M.G., Glunk, U. and Roe, R.A. (2011), "The interface of the top management team and middle managers: a process model", *Academy of Management Review*, Vol. 36 No. 1, pp. 102-126.
- Ren, C.R. and Guo, C. (2011), "Middle managers' strategic role in the corporate entrepreneurial process: attention-based effects", *Journal of Management*, Vol. 37 No. 6, pp. 1586-1610.
- Richardson, H.A., Simmering, M.J. and Sturman, M.C. (2009), "A tale of three perspectives: examining post hoc statistical techniques for detection and correction of common method variance", *Organizational Research Methods*, Vol. 12 No. 4, pp. 762-800.
- Robinson, C.D., Tomek, S. and Schumacker, R.E. (2013), "Tests of moderation effects: difference in simple slopes versus the interaction term", *Multiple Linear Regression Viewpoints*, Vol. 39 No. 1, pp. 16-24.
- Rowe, W.G., Cannella, A.A., Rankin, D. and Gorman, D. (2005), "Leader succession and organizational performance: integrating the common-sense, ritual scapegoating, and vicious-circle succession theories", *The Leadership Quarterly*, Vol. 16 No. 2, pp. 197-219.
- Ruamsook, K. and Craighead, C.W. (2014), "The supply chain talent perfect storm?", *Supply Chain Management Review*, Vol. 18 No. 1, pp. 12-17.
- Saris, W.E. and Gallhofer, I. (2007), *Design, Evaluation and Analysis of Questionnaires for Survey Research*, Wiley Interscience, Hoboken, NJ.
- Saris, W.E., Knoppen, D. and Schwartz, S.H. (2013), "Operationalizing the theory of human values: balancing homogeneity of reflective items and theoretical coverage", *Survey Research Methods*, Vol. 7 No. 1, pp. 29-44.
- Sarkar, S. and Kumar, S. (2015), "A behavioral experiment on inventory management with supply chain disruption", *International Journal of Production Economics*, Vol. 169, pp. 169-178.
- Sbrana, G. and Silvestrini, A. (2013), "Forecasting aggregate demand: analytical comparison of top-down and bottom-up approaches in a multivariate exponential smoothing framework", *International Journal of Production Economics*, Vol. 146 No. 1, pp. 185-198.
- Shi, M. and Yu, W. (2013), "Supply chain management and financial performance: literature review and future directions", *International Journal of Operations & Production Management*, Vol. 33 No. 10, pp. 1283-1317.
- Shin, Y., Sung, S.Y., Choi, J.N. and Kim, M.S. (2015), "Top management ethical leadership and firm performance: mediating role of ethical and procedural justice climate", *Journal of Business Ethics*, Vol. 129 No. 1, pp. 43-57.
- Shinkle, G.A. (2012), "Organizational aspirations, reference points, and goals: building on the past and aiming for the future", *Journal of Management*, Vol. 38 No. 1, pp. 415-455.
- Shore, L.M. and Tetrick, L.E. (1994), "The psychological contrast as an explanatory framework in the employment relationship", in Cooper, C. and Rousseau, D. (Eds), *Trends in Organizational Behavior*, Vol. 1, Wiley, New York, NY, pp. 91-109.
- Siemens, E. (2008), "The hidden perils of career concerns in R&D organizations", *Management Science*, Vol. 54 No. 5, pp. 863-877.
- Siemens, E., Roth, A.V., Balasubramanian, S. and Anand, G. (2009), "The influence of psychological safety and confidence in knowledge on employee knowledge sharing", *Manufacturing & Service Operations Management*, Vol. 11 No. 3, pp. 429-447.

- Simons, R. (2000), *Performance Measurement and Control Systems for Implementing Strategy*, Prentice Hall, Upper Saddle River, NJ.
- Simsek, Z., Jansen, J.J.P., Minichilli, A. and Escriba-Esteve, A. (2015), "Strategic leadership and leaders in entrepreneurial contexts: a nexus for innovation and impact missed?", *Journal of Management Studies*, Vol. 52 No. 4, pp. 463-478.
- Sitkin, S.B. and Weingart, L.R. (1995), "Determinants of risky decision-making behavior: a test of the mediating role of risk perceptions and propensity", *Academy of Management Journal*, Vol. 38 No. 6, pp. 1573-1592.
- Sitkin, S.B., See, K.E., Miller, C.C., Lawless, M.W. and Carton, A.M. (2011), "The paradox of stretch goals: organizations in pursuit of the seemingly impossible", *Academy of Management Review*, Vol. 36 No. 3, pp. 544-566.
- Smith, A.D., Plowman, D.A., Duchon, D. and Quinn, A.M. (2009), "A qualitative study of high-reputation plant managers: political skill and successful outcomes", *Journal of Operations Management*, Vol. 27 No. 6, pp. 428-443.
- Stainback, K., Tomaskovic-Devey, D. and Skaggs, S. (2010), "Organizational approaches to inequality: inertia, relative power, and environments", *Annual Review of Sociology*, Vol. 36 No. 1, pp. 225-247.
- Stratman, T. (2010), "Are supply chain leaders ready for the top?", *Supply Chain Management Review*, Vol. 11, pp. 28-33.
- Thornton, L.M., Esper, T.L. and Autry, C.W. (2016), "Leader or lobbyist? How organizational politics and top supply chain manager political skill impacts supply chain orientation and internal integration", *Journal of Supply Chain Management*, Vol. 52 No. 4, pp. 42-62.
- Uhl-Bien, M. and Maslyn, J.M. (2003), "Reciprocity in manager-subordinate relationships: components, configurations, and outcomes", *Journal of Management*, Vol. 29 No. 4, pp. 511-532.
- Van Asselt, M.B.A. (2000), *Perspectives on Uncertainty and Risk*, Kluwer Academic Publishers, Dordrecht.
- Villena, V.H., Gomez-Mejia, L.R. and Revilla, E. (2009), "The decision of the supply chain executive to support or impede supply chain integration: a multidisciplinary behavioral agency perspective", *Decision Sciences*, Vol. 40 No. 4, pp. 635-665.
- Way, S.A., Simons, T., Leroy, H. and Tuleja, E.A. (2016), "What is in it for me? Middle manager behavioral integrity and performance", *Journal of Business Ethics*, available at: <http://dx.doi.org/10.1007/s10551-016-3204-9>
- Werner, S. and Tosi, H. (1995), "Other people's money: the effect of ownership on compensation strategy and managerial pay", *Academy of Management Journal*, Vol. 38 No. 6, pp. 1672-1691.
- Wiseman, R. and Gomez-Mejia, L.R. (1998), "A behavioral agency model of managerial risk taking", *Academy of Management Review*, Vol. 23 No. 1, pp. 133-152.
- Wisner, J.D., Leong, K.G. and Tan, K.C. (2004), *Supply Chain Management: A Balanced Approach*, Thomson South-Western, Mason, OH.
- Zu, X. and Kaynak, H. (2012), "An agency theory perspective on supply chain quality management", *International Journal of Operations & Production Management*, Vol. 32 No. 4, pp. 423-446.

Corresponding author

Guanyi Lu can be contacted at: guanyi.lu@oregonstate.edu

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.