Why frontline employees engage as idea collectors –

An assessment of underlying motives and critical success factors

David M. Woisetschläger*
Professor of Services Management
Technische Universität Braunschweig
Institute of Automotive Management and Industrial Production
Schleinitzstr. 23a
38106 Braunschweig
d.woisetschlaeger@tu-braunschweig.de
+49(0)531 391 63100

Debra Hanning
Assistant Professor of Marketing
Department of Marketing
TU Dortmund University
Otto-Hahn-Str. 6
44221 Dortmund, Germany
debra.hanning@tu-dortmund.de

Christof Backhaus
Professor of Marketing
Newcastle University Business School
5 Barrack Road, Newcastle upon Tyne, NE1 4SE, England
christof.backhaus@newcastle.ac.uk

*Corresponding author

Keywords: Frontline employees, innovation generation, idea gathering, idea dissemination

Why frontline employees engage as idea collectors –

An assessment of underlying motives and critical success factors

Abstract

The importance of frontline employees for the success of organizations is recognized by researches and practitioners alike. However, their importance for the innovativeness of companies resulting from their boundary spanning role is often underestimated and has received little attention in prior research. The present paper contributes to the literature by empirically investigating idea fishing behaviors, and, in particular, the relationship between idea gathering and idea dissemination behaviors, of frontline employees from different industrial and business services firms. Furthermore, the impact of motivators such as job satisfaction and desire for upward mobility and the effects of other important conditions such as role stress and internal network on idea gathering and dissemination are assessed. Results of our study show that the proposed chain of idea gathering leading to idea dissemination and resulting in innovation holds. Furthermore, the various effects of role stress underline the importance of differentiating between different forms of role conflict and ambiguity. Based on these findings, implications for management and research are derived.

1. Introduction

The importance of frontline employees (FLEs) for the success and effectiveness of organizations is recognized by researchers and practitioners alike (Hartline & Ferrell, 1996; Singh, 2000). FLEs play a central role in building and developing customer relationships and have a significant influence on perceived service quality, customer satisfaction and loyalty (Bitner, Booms, & Tetreault 1990; Grönroos, 2007). Through this they also have a considerable impact on the overall performance of the firm (Capon, Farley, & Hoenig, 1990; Hays & Hill, 1997).

However, intra-organizational knowledge sharing of FLEs and their importance for the innovativeness of companies is often underestimated and has received little attention in prior research with some notable exceptions (Menguc, Auh, & Kim, 2011). Their boundary spanning position has them uniquely placed to listen to the voice of the customer and to make this voice heard in their organization (Griffin & Hauser 1993; van der Heijden et al., 2013).

Integrating customer information in innovation processes positively influences the success of new product and service development projects (Evanschitzky et al., 2012; Gruner & Homburg, 2000; Matthing, Sandén, & Edvardsson, 2004). This appears to be particularly true for the early stages of the innovation process, the generation of ideas (Alam, 2002). While there are some concerns in the literature regarding the innovativeness and market success of innovations built on integrating customers and customer information (Christensen, 1997; Ulwick, 2002), there is strong evidence that integrating customers and customer information can lead to highly original ideas for innovation (Magnusson, Matthing, & Kristensson, 2003) and to more successful new products and services (Cooper, Edgett, & Kleinschmidt, 2004; Gruner & Homburg, 2000).

FLEs represent a unique and valuable source for this information (Grönroos, 2007; Pelham & Lieb, 2004) as they are the organization’s closest link to their customers (Jong, Verbeke, & Nijssen, 2014; Singh, 2000). They interact with customers in formal and informal situations, re-

ceive customers' comments, praise and complaints and hear information on competitors' market activities (Le Bon & Merunka, 2006; Lorge & Brewer, 1998). New ideas, born from observation, direct suggestions or off-hand comments from customers, can arise as an unplanned by-product of these interactions and then made available to the company through their FLEs.

At the heart of our research interest lies the question of how companies can profit from the potential for innovation arising from the interactions between their FLEs and their customers. We look at how FLEs gather ideas, suggestions and innovative impulses from their customer contacts and then make these available to their company. We refer to this process as idea fishing – the FLEs fish for ideas in their customer contacts and then reel the ideas in for their company.

Our central research question focuses on the identification of individual factors that explain variations in the behaviors of FLEs with regard to idea fishing. We develop and test a theoretical model linking antecedents to the idea fishing behaviors of FLEs. By doing so, we aim to provide companies with a better understanding on how to profit more effectively more from the potential of innovation arising in customer interfaces.

We set the scene for our empirical investigation by first discussing the development of the idea fishing construct and its antecedents. In the subsequent sections, we detail the methodology and measurements used for our empirical study before presenting and discussing the results. Finally, we underline the theoretical and managerial implications of our study.

2. Development of the idea fishing concept

The concept of idea fishing is founded in the boundary spanning literature. Boundary spanners bridge the inner and outer boundaries of organizations, facilitating the flow of resources and information across these interfaces (Aldrich & Herker, 1977). Of particular relevance for innovation is informational boundary spanning (Hazy, Tivnan, & Schwandt, 2003; Tushman, 1977). This is a two-step process, in which relevant information is first gathered outside of the boundary

and then disseminated within (Tushman & Scanlan, 1981). In this way, boundary spanning employees can bring new information, ideas and suggestions into companies and so strengthen the company's innovativeness (Reid & de Brentani, 2004). The employees also act as filters (Leifer & Delbecq, 1978) or gatekeepers (Reid & de Brentani, 2004), as only information perceived and deemed relevant and interesting for the company by the boundary spanning employees is collected and passed on.

FLEs in customer contact positions, such as in services or sales, are also boundary spanners (Zeithaml, Bitner, & Gremler, 2008) and as such could use their customer contact as a source of innovation for their companies. However, research looking at the behaviors of FLEs tends to focus on sales or service delivery behaviors and the representational boundary spanning activities of FLEs (Aldrich & Herker, 1977). The information exchange here is geared not towards generating innovation, but to facilitate transactions (Walter & Gemünden, 2000) or to gain market information for strategic decision-making (Le Bon & Merunka, 2006; Lorge & Brewer, 1998). FLEs' potential for initiating innovation has so far been only little explored.

Research on new product and new service development points out the benefits of integrating FLEs from services (Lievens & Moenaert, 2000; Martin & Horne, 1995; Selden & MacMillan, 2006) and sales (Judson et al., 2009; Judson et al., 2006) into innovation processes. But the FLEs are seen as sources of information for existing development projects, often consulted only in the later stages of the innovation process (Judson et al., 2009; Malshe & Biemans, 2014). Their role as possible initiators of innovation, as a source for new ideas gained from their customer contacts, is marginalized.

The concept in the literature that comes closest to our definition of idea fishing is a construct developed by Bettencourt and Brown (2003) called internal influence. They define this as "*taking individual initiative in communications to the firm and co-workers to improve service*

delivery by the organization, co-workers and oneself" (Bettencourt, Brown, & MacKenzie, 2005, p. 142). Based on both the conceptualization and the operationalization of the concept as defined by Bettencourt et al. (2005), internal influence is focused on disseminating information about creative solutions to customer problems and suggesting possible service improvements. It does not include the first step of informational boundary spanning (Tushman & Scanlan, 1981), FLEs identifying and gathering innovative ideas in their interactions with customers.

3. Conceptual model

Our conceptual model is based on two main approaches. Drawing on the literature on informational boundary spanning for innovation, we develop two hypotheses that explain the relationships between idea gathering, idea dissemination and innovation generation. For the remaining parts of our model, we draw on the concepts of social exchange and organizational citizenship-behavior (OCB). In this vein, we derive hypotheses on the direct and moderating effects of individual level work-related variables on idea gathering and idea dissemination.

3.1 The relationships between idea gathering, idea dissemination and innovation generation

Innovation generation refers to radical or incremental changes in product, process, or service (Roy, Sivakumar, & Wilkinson, 2004). Ideas from various sources form the basis for future innovations. As idea generation is traditionally seen as the territory of firms' R&D departments, the relevance of FLEs in "fishing" ideas from customer contact situations has been largely ignored by academics and practitioners. We define the concept of idea fishing as follows: Idea fishing refers to FLEs (1) gathering creative and innovative ideas and suggestions during interactions with customers and (2) disseminating these ideas in the company. Acknowledging that not every idea does not necessarily result in a successful implementation and thus to innovation (Baer, 2012; Kock, Heising, & Gemünden, 2014), the gathering of ideas and their dissemination represent two related, but separate concepts that may be influenced by different factors, such as indi-

vidual motivations, barriers (e.g. access to internal networks), relationships to customers, and organizational factors. Since idea gathering represents a prerequisite of idea dissemination, idea gathering needs to be positively related to idea dissemination in order to impact innovation generation. Our first hypothesis can therefore be stated thus:

H_1: Idea gathering has a positive impact on idea dissemination.

Resource-dependence theory (Pfeffer & Salancik, 1978) states that external resources stemming from an organization's environment exert an important influence on the organization's survivability. Assuming that FLEs are able to collect valuable knowledge, using and sharing this knowledge could lead to better adaptation of the organization to new market developments and the creation of new innovations. Ideas fished from customer contact situations could lead to new or improved products and services, as well as new ways of doing things (i.e., incremental process-related innovations) and identifying potential new markets and customers for existing products.

Some of these ideas could be implemented directly by the FLEs and would not need to be disseminated; others would need to be distributed to various persons and departments, underlining the importance of idea dissemination. Thus:

H_2: a) Idea gathering and b) idea dissemination have a positive relationship with generated innovation.

3.2 Antecedents of idea fishing behaviors

Idea fishing requires FLEs to invest time and effort. They must be attentive in customer contact situations, think about observations, develop ideas and then keep them in mind until they can be passed on. Dissemination, too, may be time consuming, with FLEs needing to address the right people and explain their ideas. So, why do FLEs engage in idea fishing behaviors that require personal involvement and time and may be seen as peripheral to their basic job tasks?

Measures of FLE performance discussed in the literature do not include aspects of developing and passing on ideas gained from customer interaction (e.g. Brown & Peterson, 1994; Churchill et al., 1985; Singh, 2000). Overviews of FLE tasks in literature (e.g. Johnston & Marshall, 2009; Zeithaml, Bitner, & Gremler, 2008) place little emphasis on idea gathering geared towards innovation. Bettencourt and Brown (2003) describe internal influence, a customer oriented boundary spanning behavior similar to our concept of idea fishing, to be more peripheral than for example tasks such as service delivery. Based on the job and performance descriptions in the literature and our interviews we believe idea fishing to be a mostly discretionary work behavior. These behaviors are not part of the traditional task statements nor are they recognized by formal organizational reward systems (Hoffman et al., 2007). They can also be said to be extra-role (Organ, 1988), in that they are not part of the role prescribed. For most FLEs, this will be true of idea fishing.

To understand why FLEs may engage in idea fishing behaviors, we look at why they engage in other forms of discretionary work behaviors. Of the various conceptualizations of discretionary work behaviors (e.g. contextual performance, pro-social organizational behavior, extra role behavior, OCB; Smith, Organ, & Near, 1983) have by far received the lion's share of research (Hoffman et al., 2007; Podsakoff et al., 2000). We therefore concentrate on the literature on OCBs for potential antecedents of idea fishing behaviors.

Two of the most salient motives found in the literature on why employees engage in OCBs are altruistic "morale" reasons (Organ & Ryan, 1995, p. 777) and more instrumental, impression management motives (Bolino, 1999; Bolino, Tumley, & Niehoff, 2004; Rioux & Penner, 2001). Both motives contribute to the presence and extent of discretionary work behaviors.

The dominant theoretical logic used to explain the influence of morale variables on discretionary behaviors is social exchange theory (Adams, 1965; Blau, 1964). Social exchange theory

is based on the idea of reciprocal reinforcement (Emerson, 1976). Individuals assess both the social and economic rewards of an exchange relationship and their commitment to the relationship. Based on this evaluation, individuals seek to reciprocate the benefits received or leave the relationship for alternatives (Blau, 1964).

In an organizational setting, discretionary work behaviors such as OCBs provide a means for employees to recompense their superiors or the organization as a whole for benefits received (Bateman & Organ, 1983). These discretionary behaviors depend both upon the employee's evaluations of the intrinsic and extrinsic rewards and his or her commitment to the exchange relationship with the organization (Blau, 1964; Bettencourt et al., 2005). As a reflection of the evaluation of relationship outcomes, job satisfaction has been shown to have a strong positive relationship with OCBs (MacKenzie et al., 1998; Organ & Ryan, 1995; Podsakoff, 2000) and other discretionary employee behaviors (Bettencourt & Brown, 2003; Boichuk & Menguc, 2013). Following the same line of argumentation, we believe that:

H_3: Job satisfaction will be positively related to a) idea gathering and b) idea dissemination

Based on social exchange theory, OCBs are a reaction to employees' evaluation of their work relationship. In the last decade, a more proactive and self-serving motive for employees to engage in discretionary work behaviors has received increasing attention (Bolino, 1999; Yun, Takeuchi, & Liu, 2007). Drawing on impression management theories, it is argued that employees may engage in discretionary work behaviors to impress their superiors (Rioux & Penner, 2001; Stevens, 1997; Yun, Takeuchi, & Liu, 2007). This strategy is more likely to be used by employees who want to further their career in the organization. This desire is captured by a concept from the organizational communication literature called desire for upward mobility (Read, 1962). It has been shown to affect the quality and quantity of information passed on by employ-

ees to superiors (Roberts & O'Reilly III., 1974; Wortruba & Mangone, 1979) as well as employees' motivation to collect market information (Le Bon & Merunka, 2006). Idea fishing behaviors offer employees with a desire for upward mobility a means to demonstrate their willingness to help the organization. Thus:

H_4: Desire for upward mobility will be positively related to a) idea gathering and b) idea dissemination.

Employee role perceptions also impact discretionary work behaviors (Bettencourt & Brown, 2003; Podsakoff et al., 2000). Of these perceptions, role conflict and role ambiguity have received the most research attention and are regarded as the most critical role stressors in a boundary role (Brown & Peterson, 1994). Role conflict points to incompatible role expectations and demands (Rizzo, House, & Lirtzman, 1970) while role ambiguity refers to the degree to which information needed to effectively enact the role is lacking (Rizzo, House, & Lirtzman, 1970).

Because FLEs interact with both role partners within the company and customers as external role partners, we follow Singh's (2000) differentiation of role conflict and role ambiguity in different facets. Role conflict intersender denotes conflicting expectations from two or more role partners, whereas role conflict between resources and demands shows an imbalance between role demands and the available time, material or people resources. Role ambiguity customer refers to uncertainty on how to interact with the customer, whereas role ambiguity company taps into insecurity regarding the companies role expectations about how to perform role tasks, priorities in tasks and requirements for promotion (Singh, 2000).

Role stressors mainly affect discretionary work behaviors indirectly over their negative impact on job satisfaction (Bettencourt & Brown, 2003; Podsakoff et al., 2000). This effect can be understood in terms of withdrawal mechanisms (Goolsby, 1992). Role stress leads to psychological withdrawal in the form of reduced job satisfaction, which in turn leads to a behavioral with-

drawal in the form of reduced discretionary work behaviors and turnover intentions (Chen, Hui, & Sego, 1998; Goolsby, 1992; MacKenzie, Podsakoff, & Ahearne, 1998). Role stressors may also affect idea fishing behaviors directly, in that employees will have to expend effort in dealing with inconsistent and unclear role expectations (Rizzo, House, & Lirtzman, 1970). Thereby, it can be argued that both role ambiguity facets, in addition to their negative impact on job satisfaction, are likely to affect idea gathering, as both more relate to role expectations at the FLE – customer interface. Role conflict intersender, respectively, is assumed to impact idea dissemination, since the construct refers to conflicts originating within the own organization. We therefore posit the following hypotheses:

H_5: Role ambiguity-company will be negatively related to a) job satisfaction, and b) idea gathering.

H_6: Role ambiguity-customer will be negatively related to a) job satisfaction, and b) idea gathering.

H_7: Role conflict resources/demands will be negatively related to a) job satisfaction, b) idea gathering, and c) idea dissemination.

H_8: Role conflict intersender will be negatively related to a) job satisfaction, and b) idea dissemination.

As well as the factors derived from the literature on organizational citizenship behaviors and other discretionary behaviors, we also draw from the literature on boundary spanning to develop our model. In particular, a prerequisite for successful informational boundary spanning is that the boundary spanner is integrated well in internal and external networks (Tushman & Scanlan, 1981). The access to external networks is important so that the boundary spanner can gather information. FLEs have access to information outside of the organization during their interaction with customers. Access to internal networks is important for dissemination the collected infor-

mation in the company (Reid & de Brentani, 2004; Tushman & Scanlan, 1981). In particular, ideas gathered have to be "sold" to colleagues or departments in the company, as resources are necessary to further proceed in the NPD process (Škerlavaj, Černe, & Dysvik, 2014). The better integrated FLEs are in internal networks, the easier they can pass on ideas in the company and the more likely they are to engage in idea dissemination. Employees knowing it is easy to pass on information are more likely to pay attention to innovative ideas in customer contact situations. Conversely, FLEs who have difficulties in passing on ideas due to a lack of access to internal networks are likely to feel less inclined to look for new ideas in customer contacts. Therefore:

H_9: Access to internal networks will be positively related to a) idea gathering and b) idea dissemination.

4. Methodology

4.1 Data

To test the hypotheses, we collected data from different firms through online surveys. We obtained a random sample of firms from a commercial list provider. Telephone calls were made to obtain the names and addresses of the persons responsible for sales. Over 100 managers from firms of different industry sectors were addressed by a personalized letter. Respondents were asked to distribute an internet survey to their FLEs (sales representatives and service personnel). We received a total of 237 responses (between 3 and 23 per firm, average 7.65). Their average age is 40.79 (SD = 8.82) and 90.5 % of the respondents is male. On average, respondents focus more on sales than on services (MV = 2.47; SD = 1.05 on a 5-point Likert-type scale with a value of 1 corresponding to a full focus on sales and 5 on services). FLEs rate themselves as moderately successful relatively to other FLEs (past sales performance: MV = 3.35 [SD = 1.02]; profitability: MV = 3.39 [SD = 1.06]; new customer growth: MV = 3.42 [SD = 1.01]; customer retention:

MV = 3.81 [SD = .93]).[1] The respondents work in different industry and business services sectors, more than half of the sample is employed in small or medium-sized firms (table 1).

[Insert table 1 about here]

4.2 Measures

For all anteceding constructs, we used multi-item scales obtained from existing literature, whereby all items were measured on 5-point Likert-type scales, with anchors of "1 = strongly disagree" and "5 = strongly agree." *Desire for upward mobility* was operationalized using a scale from Le Bon and Merunka (2006). Measurement scales for *job satisfaction* (Weiss & Nicholas, 1999) and *organizational commitment* (Porter et al., 1974) were adapted from the literature. *Internal network* was operationalized with two items indicating the perceived interconnectedness of FLEs with colleagues from other departments of their firm. We followed Singh's (2000) differentiation and operationalization of role conflict and role ambiguity in different facets. More specifically, we measured *role ambiguity* related to 1) the *company*, 2) *customers* and *role conflict* caused by 1) an imbalance between available *resources and demands* and 2) *intersender conflicts* (Singh, 2000). Based on a qualitative pre-study, scales to measure *idea gathering* and *idea dissemination* were developed. We conducted 21 in-depth interviews with FLEs from different organizations, selected using purposive sampling. Based on the categorization and coding of the interview material, scales measuring *idea gathering, dissemination, and innovation generation* were constructed. *Idea gathering* was measured with three items that ask for FLEs' self-reported

[1] In addition to the FLE survey, we also obtained data from the sales management of the participating FLEs to provide additional information on the firm level. Given that the focus of this manuscript is on individual-level antecedents, we do not further elaborate on firm level aspects. However, ICC calculation indicate a substantial amount of variance between firms for idea gathering (ICC = 7.6 %) and idea dissemination (ICC = 7.7 %), which suggests severe violations of the assumption of independent observations across firms. To account for this issue, we employed multilevel analysis and thus controlled for influences stemming from the firm level.

idea gathering behavior in customer contact situations. *Idea dissemination* was operationalized with three items measuring FLEs' self-reported behavior of distributing information derived from customer contact situations within their own organization. As outcome variable, FLEs were asked to evaluate their firm's *innovation generation* (see table 1 for scale items).

Following Anderson and Gerbing (1988), we conducted a confirmatory factor analysis (CFA) to assess the reliability and validity of the multi-item scales. The coefficient alpha exceeds .7 (Hair et al., 2006; Nunnally, 1978) for all scales. In addition, the composite reliabilities exceeded .6 for all constructs (Bagozzi & Yi, 1988). The model shows a satisfactory fit to the data (CFI = .97; TLI = .95; RMSEA = .04; SRMR = .06). We assessed discriminant validity on the basis of criteria suggested by Fornell and Larcker (1981), concluding that discriminant validity was given for all constructs investigated. (see table 3 for correlations for all constructs).

[Insert table 3 about here]

5. Analysis overview and results

In accordance with the study objectives, we analyze the effects of job satisfaction, desire for upward mobility, internal network, and role stress dimensions on idea gathering and idea dissemination. As the FLEs surveyed stem from different organizations, we have two data sources that are "nested": The FLE data (n = 237) is nested in the firm data (n = 31). Acknowledging that the assumption of independent observations across firms is therefore violated, we employed multilevel analysis and thus controlled for influences stemming from the firm level (for an overview on the method, see Hox, 1995; Raudenbush & Bryk, 2002; Raudenbush et al., 2004; Snijders & Bosker, 1999). The software package MPlus 7 (Muthén & Muthén, 1998-2012) was used for the analysis.

Results shown in table 4 indicate that idea gathering is significantly related to idea dissemination (H1). While idea gathering shows no direct relationship to innovation generation (H2a), idea dissemination and innovation generation are positively related (H2b). Moreover, our results show that job satisfaction has a positive effect on idea gathering (H3a), but, contrary to H3b, is not significantly related to idea dissemination. Similarly to job satisfaction, employees' desire for upward mobility is positively related to idea gathering (H4a), but not to idea dissemination (H4b). Role ambiguity regarding the company's expectations is found to have a negative effect on idea gathering (H5b), but is not significantly related to job satisfaction (H5a). Role ambiguity-customer does not show significant effects on either idea gathering or job satisfaction, leading to a rejection of H6b and H6a. Role conflict resulting from resources/demands is found to affect job satisfaction negatively (H7a), while the proposed negative effect on dissemination could not be observed (H7c). Contrary to H7b, role conflict because of lacking resources shows a positive effect on idea gathering. Similarly, and contrary to H8b, intersender conflicts are found to be positively related to idea dissemination. In addition, role conflict resulting from intersender conflicts is unrelated to job satisfaction (H8a). As proposed in H9a and H9b, having strong bonds within the firm contributes positively to both idea gathering and dissemination within the FLE's firm. In total, the explained variance of the level-1 model is 13.4 % for innovation generation, 57.8 % for idea dissemination, 26.9 % for idea gathering, and 36.6 % for job satisfaction.

[Insert table 4 about here]

6. Discussion

6.1 Theoretical implications

Our findings show that idea gathering alone is not enough to stimulate innovation. If the ideas collected in customer contact situations are not disseminated, they are lost to the company. That is not to say that idea gathering is not important – ideas need to be there before they can be passed on and idea gathering is indirectly related to innovation generation over dissemination.

In line with previous research on discretionary work behaviors, we find that that job satisfaction and desire for upward mobility are key determinants of idea gathering. However, in our study idea dissemination was not significantly related to job satisfaction or desire for upward mobility. This is surprising, as both those factors are strong drivers of other forms of discretionary behavior. Idea dissemination is influenced by these factors only indirectly over the mediator idea gathering. A possible explanation could be that if FLEs do not believe that disseminating ideas is important to their company, this makes it unsuitable as compensation for benefits received (job satisfaction) or as a means to build a favorable impression with management (desire for upward mobility). But then, why do these factors influence idea gathering? Job satisfaction may lead to employees looking for ways to improve things for the company and being sensitized to being open to ideas in customer contact. A desire for upward mobility could lead employees to gather ideas in customer contacts with the aim of building their knowledge to improve their career. The insignificant relationship between job satisfaction and idea dissemination might also be interpreted in the light the findings obtained in a recent study by Boichuk and Menguc (2013). Using a field study and a controlled experiment, the authors show that, under boundary conditions of supervisor support and continuance commitment, dissatisfied employees are c. p. more likely engage in voice behaviors regarding their ideas (Boichuk & Menguc, 2013). Therefore, the job satisfaction – dissemination link may similarly be subject to boundary conditions, which may result in an overall insignificant direct relationship between the two constructs.

In line with our theoretical assumptions, the quality of FLEs internal networks is positively related to both idea gathering and dissemination. Thus, idea gathering behaviors are less likely when FLEs have few connections in their own department and the wider organization. Knowing that they cannot pass the collected ideas on to anyone may reduce the motivation to look for new ideas, or employees with few connections are less well able to recognize potential new ideas as they may have less idea about what could be important to the company.

Our findings on the various effects of role stress underline the importance of differentiating between different forms of role conflict and ambiguity as suggested by Singh (2000). Contrary to our hypotheses, we find that role conflict resulting from differences in available resources and demands is positively related to idea gathering. A possible explanation for this is that role conflict resulting from insufficient resources may lead to positive stress and to employees creatively managing role demands (Goolsby, 1992; Singh, 1998). Role conflict can be stimulating as well as inhibiting, leading FLEs to find new solutions and so develop new ideas.

Another result that contradicts our propositions is that intersender role conflict positively impacts idea dissemination. A potential explanation for this is that the FLEs who experience high levels of this sort of role conflict also have to deal with a larger amount of different people and different departments. This connectedness would offer more opportunities to pass on ideas. Employees may also try to address role conflict situations with information and ideas they have gained from customer interactions, leading to more idea disseminating behaviors.

6.2 Managerial implications

Our findings offer several implications for management. First, the two motivational mechanisms contributing to idea fishing should be acknowledged. FLEs who are satisfied with their professional life are more likely to contribute new ideas to improve processes or products. In addition, ambitious FLEs show a higher likelihood to engage in idea gathering. Therefore, firms

should attempt to address both motivational paths. Second, companies should try to carefully manage conflicts between available resources and role demands, as these show indirect (over job satisfaction) and direct negative effects on the inbound information flow. Clear job descriptions and well defined expectations as well as a suitable balance in resource allocation to FLEs are key management tasks. Having too many resources at FLEs' disposal, however, might lower the perceptions of necessity of engaging in idea gathering activities. The counter-directional effects of role conflict resulting from resource scarcity make a careful balancing strategy mandatory. Third, role stress stemming from intersender conflicts has been found to contribute positively to idea dissemination, without negative side-effects (e.g. of lowering job satisfaction). We conclude that these findings are a reflection of individual differences in job profiles or positions, rather than stating that increasing role stress resulting from conflicting demands from different stakeholders would lead to an improved innovation process. Instead, the findings suggest that firms should ensure that FLEs working on the interface of many stakeholders can take advantage of this position by having adequate resources and access to internal networks.

Fourth, companies should help FLEs integrate in internal networks to encourage them to gather ideas and help them disseminate these. This can be done by creating opportunities to develop informal networks as well as building formal connections between FLEs and other members of the organization (McDermott & Archibald, 2010).

6.3 Limitations and opportunities for future research

Future research should explore the substantial amount of between-firm variance in the idea fishing process. Contingency factors such as differences between market-orientation, learning-orientation, and organizational feedback and support mechanisms could possibly explain, why significant differences in both extents (intercept effects) and underlying antecedents (slope effects) are observed in the idea fishing process. One major limitation of the study is the operation-

alization of innovation generation as self-reported variable. Future studies should extend the model using objectively measurable outcomes of innovation processes such as the number of patents, etc. on a firm level. Another potential explanation for the intensity of idea gathering activities could be the relationship quality between FLEs and their customers. Therefore, future research could assess antecedents of idea gathering by studying the relationships between FLEs and their customers.

REFERENCES

Adams, J. S. (1965). Inequity in social exchange. *Advances in experimental social psychology* (2), L. Berkowitz (ed), 267–299. New York: Academic Press.

Alam, I. (2002). An Exploratory Investigation of User Involvement in New Service Development. *Journal of the Academy of Marketing Science, 30*(3), 250–261.

Aldrich, H., & Herker, D. (1977). Boundary Spanning Roles and Organization Structure. *Academy of Management Review 2*(2), 217–230.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin 103*(3), 411–423.

Baer, M. (2012). Putting Creativity to Work: The Implementation of Creative Ideas in Organizations. *Academy of Management Journal 55*(5), 1102–1119.

Bagozzi, R. P., & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science 16*(1), 74–94.

Bateman, T. S., & Organ, D. W. (1983). Job Satisfaction and the Good Soldier: The Relationship Between Affect and Employee "Citizenship". *Academy of Management Journal 26*(4), 587–595.

Bettencourt, L. A., & Brown, S. W. (2003). Role Stressors and Customer-Oriented Boundary-Spanning Behaviours in Service Organizations. *Journal of the Academy of Marketing Science 3*(4), 394–408.

Bettencourt, L. A., Brown, S. W., & MacKenzie, S. B. (2005). Customer-oriented boundary-spanning behaviors: Test of a social exchange model of antecedents. *Journal of Retailing 81*(2), 141–157.

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The Service Encounter: Diagnosing Favorable and Unfavorable Incidents. *Journal of Marketing 54*(1), 71–84.

Blau, P. M. (1964). *Exchange and power in social life.* New York: John Wiley & Sons.

Boichuk, J. P. & Menguc, B. (2013). Engaging Dissatisfied Retail Employees to Voice Promotive Ideas: The Role of Continuance Commitment. *Journal of Retailing 89*(2), 207–218.

Bolino, M. C. (1999). Citizenship and impression management: good soldiers or good actors? *Academy of Management Review 24*(1), 82–98.

Bolino, M. C, Tumley, W. H., & Niehoff, B. P. (2004). The other side of the story: Reexamining prevailing assumptions about organizational citizenship behavior. *Human Resource Management Review 14*(2), 229–246.

Brown, S. P., & Peterson, R. A. (1994). The effect of effort on sales performance and job satisfaction. *Journal of Marketing 58*(2), 70–80.

Capon, N., Farley, J. U., & Hoenig, S. (1990). Determinants of Financial Performance: A Meta-Analysis. *Management Science 36*(10), 1143–1159.

Chen, X.-P., Hui, C. & Sego, D. J. (1998). The Role of Organizational Citizenship Behavior in Turnover: Conceptualization and Preliminary Tests of Key Hypotheses. *Journal of Applied Psychology 83*(6), 922–931.

Christensen, C. M. (1997). *The innovators's Dilemma: When New Technologies Cause Great Firms to Fail.* Boston: Harvard Business School Press.

Churchill, Jr., G. A., Ford, N. M., Hartley, S. W., & Walker, Jr., O. C. (1985). The Determinants of Salesperson Performance: A Meta-Analysis. *Journal of Marketing Research 22*(2), 103–118.

Cooper, R. G., Edgett, S. J. ,& Kleinschmidt, E. J. (2004). Benchmarking Best NPD Practices – III. *Research Technology Management 47*(6), 43–55.

Emerson, R. M. (1976). Social Exchange Theory. *Annual Review of Sociology* 2 (August), 335–362.

Evanschitzky, H., Eisend, M., Calantone, R. J., & Jiang, Y. (2012). Success Factors of Product Innovation: An Updated Meta-Analysis. *Journal of Product Innovation Management 29*(1), 21–37.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research 18*(1), 39–50.

Goolsby, J. R. (1992). A Theory of Role Stress in Boundary Spanning Positions of Marketing Organizations. *Journal of the Academy of Marketing Science 20*(2), 155–164.

Griffin, A., & Hauser, J. R. (1993). The Voice of the Customer. *Marketing Science 12*(1), 1–27.

Grönroos, C. (2007). *Service Management and Marketing: Customer Management in Service.* Chichester: John Wiley & Sons.

Gruner, K. E., & Homburg, C. (2000). Does Customer Interaction Enhance New Product Success? *Journal of Business Research 49*(1), 1–14.

Hair, J. F, Anderson, R. E., Tatham, R. L., & Black, W. C. (2006). *Multivariate Data Analysis.* Englewood Cliffs, NJ: Prentice Hall.

Hartline, M. D., & Ferrell, O. C. (1996). The Management of Customer-Contact Service Employees: An Empirical Investigation. *Journal of Marketing 60*(4), 52–70.

Hays, J. M., and Hill, A. V. (1997). The Market Share Impact of Service Failures. *Productions and Operations Management* 8, 208–220.

Hazy, J. K, Tivnan, B. F., & Schwandt, D. R. (2003). The Impact of Boundary Spanning on Organizational Learning: Computational Explorations. *Emergence 5*(4), 86–123.

Hoffman, B. J, Blair, C. A., Meriac, J. P., & Woehr, D. J. (2007). Expanding the Criterion Domain? A Quantitative Review of the OCB Literature. *Journal of Applied Psychology 92*(2), 555–566.

Hox, J. J. (1995). *Applied multilevel analysis.* Amsterdam: TT-Publikaties.

Johnston, M. W., & Marshall, G. W. (2009). *Churchill/Ford/Walker's Sales Force Management.* New York: McGraw-Hill/Irwin.

Jong, A., Verbeke, W., & Nijssen, E. (2014). Introduction to Special Issue: Sales and Innovation. *Journal of Product Innovation Management, 31*(4), 643-646.

Judson, K., Gordon, G. L., Ridnour, R. E., & Weilbaker, D. C. (2009). Key Account vs. other Sales Management Systems: Is There a Difference in Providing Customer Input During the New Product Development Process? *Marketing Management Journal 1*(2), 1–17.

Judson, K., Schoenbachler, D. D., Gordon, G. L., Ridnour, R. E., & Weilbaker, D. C. (2006). The new product development process: let the voice of the salesperson be heard. *Journal of Product & Brand Management, 15*(2/3): 194–202.

Kock, A., Heising, W., & Gemünden, H. G. (2014). How Ideation Portfolio Management Influences Front-End Success. *Journal of Product Innovation Management*. doi:10.1111/jpim.12217.

Le Bon, J. & Merunka, D. (2006). The impact of individual and managerial factors on salespeople's contribution to marketing intelligence activities. *International Journal of Research in Marketing 23*(4), 395–408.

Leifer, R. & Delbecq, A. (1978). Organizational/ Environmental Interchange: A Model of Boundary Spanning Activity. *Academy of Management Review, 3*(1), 40–50.

Lievens, A. & Moenaert, R. K. (2000). New Service Teams as Information-Processing Systems: Reducing Innovative Uncertainty. *Journal of Service Research 3*(1), 46–65.

Lorge, S., and Brewer, G. (1998). When it pays to be curious. Salespeople in the field can be a valuable source of competitive intelligence. *Sales & Marketing Management 150*(8), 76.

MacKenzie, S. B., Podsakoff, P. M., & Ahearne, M. (1998). Some Possible Antecedents and Consequences of In-Role and Extra-Role Salesperson Performance. *Journal of Marketing 62*(3), 87–98.

Magnusson, P. R, Matthing, J., & Kristensson, P. (2003). Managing User Involvement in Service Innovation. *Journal of Service Research, 6*(2), 111–124.

Malshe, A., & Biemans, W. (2014). The Role of Sales in NPD: An Investigation of the U.S. Health-Care Industry. *Journal of Product Innovation Management 31*(4), 664–679.

Martin, C. R., & Horne, D. A. (1995). Level of Success Inputs for Service Innovations in the Same Firm. *International Journal of Service Industry Management 6*(4), 40–56.

Matthing, J., Sandén, B., & Edvardsson, B. (2004). New service development learning from and with customers. *International Journal of Service Industry Management 15*(5), 479–498.

McDermott, R., & Archibald, D. (2010). Harnessing Your Staff's Informal Networks. *Harvard Business Review 88*(3), 82–89.

Menguc, B., Auh, S., & Kim, Y. C. (2011). Salespeople's Knowledge-Sharing Behaviors with Coworkers Outside the Sales Unit. *Journal of Personal Selling and Sales Management 31*(2), 103–122.

Muthén, L.K., & Muthén, B.O. (1998-2012). Mplus User's Guide (7th ed.). Los Angeles, CA: Muthén & Muthén, available at: http://www.statmodel.com.

Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.

Organ, D. W. (1988). *Organizational Citizenship Behavior: The Good Soldier Syndrome.* Lexington, MA: Lexington Books.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behaviors. *Personnel Psychology 48*(4), 775–802.

Pelham, A. M. & Lieb, P. (2004). Differences between Presidents' and Sales Managers' Perceptions of the Industry Environment and Firm Strategy in Small Industrial Firms: Relationship to Performance Satisfaction. *Journal of Small Business Management 42*(2), 174–189.

Pfeffer, J. & Salancik, G. R. (1978). *The External Control of Organizations – A Resource Dependence Perspective*. NY: Harper & Row.

Podsakoff, P. M, MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational Citizenship Behaviors: A Critical Review of the Theoretical and Empirical Literature and Suggestions for Future Research. *Journal of Management 26*(3), 513–563.

Porter, L. W, Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational Commitment, Job Satisfaction, and Turnover Among Psychiatric Technicians. *Journal of Applied Psychology 59*(5), 603–609.

Raudenbush, S. W. & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods.* Thousand Oaks, CA: Sage Publications.

Raudenbush, S. W, Bryk, A. S., Cheong, Y. F., Congdon, R., & Du Toit, M. (2004). *HLM 6: Hierarchical Linear and Nonlinear Modeling.* Lincolnwood, IL: Scientific Software International.

Read, W. H. (1962). Upward communication in industrial hierarchies. *Human Relations 15*(3), 3–15.

Reid, S. E. & de Brentani, U. (2004). The Fuzzy Front End of New Product Development for Discontinuous Innovations: A Theoretical Model. *Journal of Product Innovation Management 21*(3), 170–184.

Rioux, S. M. & Penner, L. A. (2001). The Causes of Organizational Citizenship Behavior: A Motivational Analysis. *Journal of Applied Psychology 86*(6), 1306–1314.

Rizzo, J. R, House, R. J., & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizations. *Administrative Science Quarterly 15*(2), 150–163.

Roberts, K. H. & O'Reilly III, C. A. (1974). Failures in Upward Communication in Organizations: Three Possible Culprits. *Academy of Management Journal 17*(2), 205–215.

Roy, S., Sivakumar, K., & Wilkinson, I. F. (2004). Innovation Generation in Supply Chain Relationships: A Conceptual Model and Research Propositions. *Journal of the Academy of Marketing Science 32*(1), 61–79.

Selden, L. & MacMillan, I. C. (2006). Manage Customer-Centric Innovation-Systematically. *Harvard Business Review 84*(4), 108–116.

Singh, J. (1998). Striking a Balance in Boundary-Spanning Positions: An Investigation of Some Unconventional Influences of Role Stressors and Job Characteristics on Job Outcomes of Salespeople. *Journal of Marketing 62*(3), 69–86.

Singh, J. (2000). Performance Productivity and Quality of Frontline Employees in Service Organizations. *Journal of Marketing, 64*(2), 15–34.

Škerlavaj, M., Černe, M., & Dysvik, A. (2014). I get by with a little help from my supervisor: Creative-idea generation, idea implementation, and perceived supervisor support. *The Leadership Quarterly, 25*, 987–1000.

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology, 68*(4), 655–663.

Snijders, T. A. B. & Bosker, R. J. (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling.* Thousand Oaks, CA: Sage Publications.

Stevens, C. K. (1997). Effects of preinterview beliefs on applicants' Reactions to Campus interviews. *Academy of Management Journal 40*(4), 947–966.

Tushman, M. L. (1977). Special Boundary Roles in the Innovation Process. *Administrative Science Quarterly 22*(4), 587–605.

Tushman, M. L. & Scanlan, T. J. (1981). Boundary Spanning Individuals: Their Role in Information Transfer and Their Antecedents. *Academy of Management Journal* 24(2), 289–305.

Ulwick, A. W. (2002). Turn Customer Input into Innovation. *Harvard Business Review, 80*(1), 91–97.

Van der Heijden, G. A. H., Schepers, J. J. L., Nijssen, E. J., and Ordanini, A. (2013). Don't just fix it, make it better! Using frontline service employees to improve recovery performance. *Journal of the Academy of Marketing Science 41*(5), 515–530.

Walter, A. & Gemünden, H. G. (2000). Bridging the gap between suppliers and customers through relationship promoters: theoretical considerations and empirical results. *Journal of Business & Industrial Marketing 15*(2/3), 86–105.

Weiss, H. M. & Nicholas, J. P. (1999). An Examination of the Joint Effects of Affective Experiences and Job Beliefs on Job Satisfaction and Variations in Affective Experiences over Time. *Organizational Behavior & Human Decision Processes 78*(1), 1–24.

Wortruba, T. R. & Mangone, R. (1979). More Effective Sales Force Rating. *Industrial Marketing Management 8*(3), 236–245.

Yun, S., Takeuchi, R., & Liu, W. (2007). Employee self-Enhancement Motives and Job Performance Behaviors: Investigating the Moderating Effects of Employee Role Ambiguity and Managerial Perceptions of Employee Commitment. *Journal of Applied Psychology 92*(3), 745–756.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2008). *Services Marketing*. New York: McGraw-Hill Professional.

TABLE 1
Scale items for latent construct measures

Construct	Items	Composite reliability	Origin of scales
Job satisfaction	• All in all I am satisfied with my job • In general I like working here • I frequently think of quitting this job (r)	.77	Short version of Weiss and Nicholas' (1999) scale
Desire for upward mobility	• As part of my present job plans, I want a promotion to a higher position at some point of the future • It is very important for me to progress in my present organization	.83	Le Bon and Merunka 2006
Internal network	• How well do you feel you are connected to others in your company outside of your department? • How well do you feel connected to others in your department?	.85	Own scale
Role ambiguity customer	• How I am expected to interact (i.e. friendly or informal) with my customers • How I am expected to handle unusual customer's problems and situations • Which specific company strengths I should present to customers	.82	Short version of Singh's (2000) scale
Role ambiguity company	• How much freedom of action I am expected to have • Which tasks I should give priority to • How much work I am expected to do	.76	Short version of Singh's (2000) scale
Role conflict intersender	• Trying to meet conflicting demands of various departments • Having to deal with or satisfy too many different people	.74	Singh (2000)
Role conflict resource/ demands	• Having to do assignments without adequate training • Not having enough help and equipment to get the job done well • Not having enough time to get the job done well	.79	Short version of Singh's (2000) scale
Idea gathering	In customer contact situations … • ...as well as focusing on the main topics of the interaction, I always keep an eye out for new ideas for my company. • ...I always actively look for new ideas for my company. • ...I often ask customers directly for new ideas for my company.	.89	Own scale
Idea dissemination	When I have collected ideas and suggestions for my company in customer contact situations, … • ...I always look for ways of passing these ideas on in my company.	.86	Own scale

	• …I actively try to distribute these in my company. • …I am willing to invest a lot of time and effort into bringing these ideas into my company.		
Innovation generation	Based on my experience I can say that through our customer contacts we… • gained ideas, from which new product or services were successfully developed • gained ideas, with which we were able to improve existing products or services • gained ideas, which helped improve the ways we do things round here	.87	Own scale

Global fit indices: CFI = .98; TLI = .97; RMSEA = .03; SRMR = .05

FIGURE 1
Conceptual model

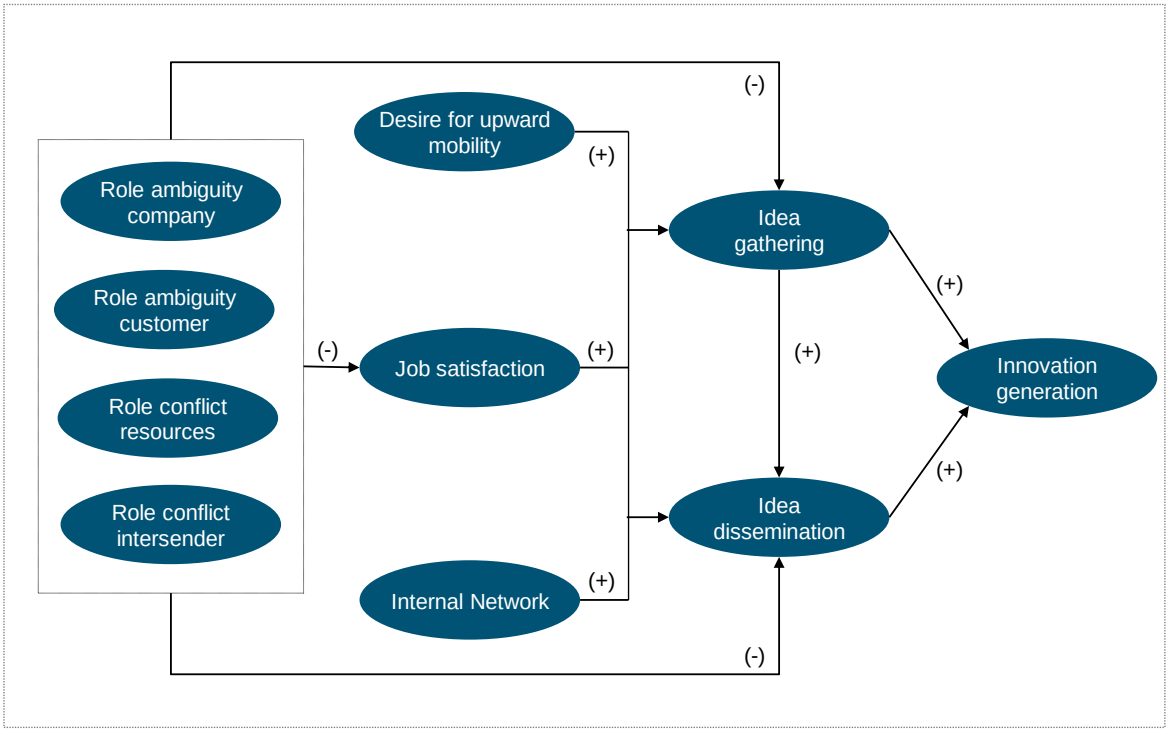

TABLE 2
Sample composition

Industry		Number of employees	
Automotive	16 %	<500	58.06 %
Construction	13 %	500-10,000	22.58 %
Information and communication technology	32 %	>10,000	19.35 %
Machinery	13 %		
Pharmaceuticals and chemicals	10 %		
Other	16 %		

TABLE 3
Correlations of latent constructs

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	8)	(9)	(10)
(1) Job satisfaction	1.00									
(2) Desire for upward mobility	.36***	1.00								
(3) Internal network	.23**	*.12*$^{n.s.}$	1.00							
(4) Role ambiguity customer	-.29***	-*.11*$^{n.s.}$	-.22**	1.00						
(5 Role ambiguity company	-.27**	-*.10*$^{n.s.}$	-.26***	.74***	1.00					
(6) Role conflict intersender	*.04*$^{n.s.}$	*.09*$^{n.s.}$	-*.04*$^{n.s.}$	*.05*$^{n.s.}$	*.06*$^{n.s.}$	1.00				
(7) Role conflict resources	-.58***	-*.10*$^{n.s.}$	-.19**	.54***	.59***	.17**	1.00			
(8) Idea gathering	.18**	.26***	.29***	-.22**	-.22***	*.01*$^{n.s.}$	*.08*$^{n.s.}$	1.00		
(9) Idea dissemination	.19**	.19**	.37***	-.21**	-.20**	.20**	-*.06*$^{n.s.}$	.67***	1.00	
(10) Innovation generation	.29***	.33***	.21**	*.02*$^{n.s.}$	-*.08*$^{n.s.}$	.18**	-*.12*$^{n.s.}$	.20**	.29**	1.00
Average variance extracted	.63	.71	.74	.69	.62	.60	.65	.73	.67	.77
Summary statistics										
Empirical range	1-5	1-5	1-5	1-4.7	1-4.7	1-5	1-5	1-5	1-5	1-5
M	4.13	3.84	3.87	1.77	2.17	3.70	2.56	3.57	4.04	2.94
SD	.75	1.03	.93	.89	1.00	1.09	1.08	.93	.86	.99

***p<.01; **p<.05; *p<.1; n.s. = not significant (italized).

TABLE 4
Results

Predictor	Std. coefficients	Explained variance (R^2)
Innovation generation		**13.4 %**
Idea dissemination	.410***	
Idea gathering	-*.070*$^{n.s.}$	
Idea dissemination		**57.8 %**
Idea gathering	.633***	
Job satisfaction	-*.043*$^{n.s.}$	
Desire for upward mobility	-*.010*$^{n.s.}$	
Internal network	.183**	
Role conflict resources	-.191*	
Role conflict intersender	.258***	
Idea gathering		**26.9 %**
Job satisfaction	.272**	
Desire for upward mobility	.190**	
Internal network	.214***	
Role ambiguity company	-.283$^{n.s.}$	
Role ambiguity customer	-*.173*$^{n.s.}$	
Role conflict resources	.547***	
Job satisfaction		**36.6 %**
Role ambiguity company	*.142*$^{n.s.}$	
Role conflict intersender	*.106*$^{n.s.}$	
Role ambiguity customer	-*.049*$^{n.s.}$	
Role conflict resources	-.669***	

Global fit indices: CFI = .96; TLI = .94; RMSEA = .05; SRMR = .07
***p<.01; **p<.05; *p<.1; n.s. = not significant (italized).