

Store creativity, store potency, store performance, retailing

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Abstract

Purpose – The purpose of the paper is to test whether retail stores' creativity predicts several indicators of performance through stores' potency.

Design/methodology/approach – A sample of 45 stores ($n = 317$ employees) of a Brazilian retail chain was included, and a group/store level of analysis was adopted. Performance was measured through objective measures. To reduce the risks of common method variance, group creativity and group potency were measured with data from different store members.

Findings – The findings show that store creativity predicts indicators of store performance through store potency.

Research limitations/implications – The study was carried out within a single organization, and the stores' sample is small. Other causalities are plausible, and future studies should adopt a longitudinal design to test reciprocal effects between the variables of the study.

Practical implications – Cultivating creativity (via the selection of creative individuals and nurturing contextual conditions that encourage creativity) may have at least indirect effects on store performance.

Originality/value – While the few empirical studies relating group creativity (still an under-researched topic) and performance have mostly used subjective performance measures, this study uses objective measures.

Keywords Retailing, Store creativity, Store performance, Store potency

Paper type Research paper

Resumen

Objetivo – El estudio investiga como la creatividad de las tiendas minoristas se relacionan con su desempeño y si esa relación es mediada por la potencia de las tiendas.

Metodología – Una encuesta de 45 tiendas ($n = 317$ empleados) de una cadena de tiendas minoristas en Brasil fue usada en el estudio, y la tienda fue adoptada como nivel de análisis. El desempeño de las tiendas fue evaluado por medio de medidas objetivas. Para reducir los riesgos de variancia del método común, los datos sobre creatividad y sobre potencia fueran obtenidos de diferentes empleados de cada tienda.



Resultados – Los resultados muestran que la creatividad de las tiendas se relaciona con algunos indicadores de desempeño, y que la relación es mediada por la potencia de las tiendas.

Limitaciones – El estudio se llevó a cabo en una única organización, y la encuesta es pequeña. Otras relaciones de causalidad son plausibles, y futuros estudios deben adoptar un procedimiento longitudinal para testar efectos recíprocos entre las variables del estudio.

Implicaciones prácticas – Promover la creatividad (por medio de la selección de empleados creativos y creando condiciones contextuales que fomentan la creatividad) puede, por lo menos, tener efectos indirectos en el desempeño de las tiendas.

Originalidad/valor – Mientras los pocos estudios que relacionan la creatividad grupal (un tópico poco estudiado) y el desempeño han usado sobretodo medidas de desempeño subjetivas, nuestro estudio incluye medidas objetivas.

Palabras-clave Creatividad de tiendas minoristas, Potencia de las tiendas, Desempeño de las tiendas, Venta al por menor

Tipo de artículo Trabajo de investigación

Resumo

Objetivos – O estudo investiga como a criatividade de lojas de retalho prediz vários indicadores de desempenho das mesmas através da mediação da potência das lojas.

Metodologia – O estudo envolve uma amostra de 45 lojas ($n = 317$ empregados) de uma cadeia brasileira de retalho. Foi adotado um nível de análise grupal. O desempenho foi medido através de medidas objetivas. Para reduzir os riscos de variância do método comum, a potência e a criatividade foram medidas através de dados provindos de diferentes empregados de cada loja.

Resultados – A criatividade das lojas prediz alguns indicadores de desempenho através da potência das mesmas.

Limitações. – O estudo foi levado a cabo dentro de uma única organização, e a amostra de lojas é pequena. Outras causalidades são possíveis, e estudos futuros deverão adotar uma metodologia longitudinal para testar efeitos recíprocos entre as variáveis do estudo.

Implicações práticas – Promover a criatividade (através da seleção de indivíduos criativos e da criação de condições contextuais encorajadoras da criatividade) pode suscitar efeitos indiretos no desempenho das lojas de retalho.

Originalidade/valor – Enquanto os poucos estudos que relacionam a criatividade grupal (um tópico ainda pouco investigado) com o desempenho têm usado sobretodo medidas subjetivas de desempenho, este estudo usa medidas objetivas.

Palavras-chave Criatividade das lojas, Potência das lojas, Desempenho das lojas, Retalho

Tipo de artigo Trabalho de pesquisa

Introduction

Research on group creativity (“the production of novel and useful ideas concerning products, services, processes and procedures” by the collective of employees in the context of group objectives; Shin and Zhou, 2007, p. 1,710) has focused mainly on antecedents or processes that foster creativity (Boies *et al.*, 2015; Carmeli and Paulus, 2015; Leung and Jie, 2015; Sung and Choi, 2012; Zhou and Hoever, 2014). Such an approach is based on the underlying assumption that creativity contributes to performance and is a “key driver of organizational innovation and success” (Zhou and Hoever, 2014, p. 333). Unfortunately, empirical research supporting the assumption is scarce (Rego *et al.*, 2014; Sung and Choi, 2012) and less categorical than what the optimistic views suggest (Martinaityte and Sacramento, 2013; Merlo *et al.*, 2006; Zhou and Hoever, 2014). Furthermore, the few empirical studies relating group creativity (still

an “under-researched” topic; James and Drown, 2012) and performance have mostly used subjective performance measures (Sung and Choi, 2012).

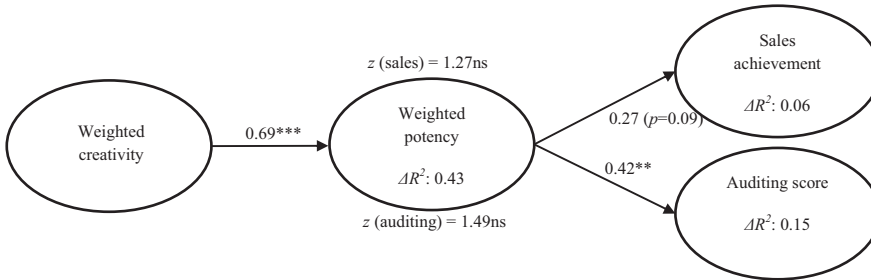
This paper enriches the field with an empirical study focused on how group creativity predicts *objective* indicators of groups’ performance in a retail context. While most research on group creativity examines groups in controlled laboratory settings (Paulus *et al.*, 2012), this study focuses on a specific understudied real setting (i.e. retail stores; Coelho *et al.*, 2011). Although this kind of setting reveals differences compared to other specific contexts in which creativity is relevant, retailing is a context in which creativity is necessary (Merlo *et al.*, 2006). In fact, many tasks, including those related to service delivery, are open-ended, rather than predetermined through step-by-step procedures (Taggar, 2002). For this reason, the empirical evidence found in the retail context may have implications for other contexts as well.

The study also tests whether store potency (the collectively shared belief of the store’s personnel that the store can be effective; Lester *et al.*, 2002) mediates the relationship between store creativity and store performance. The study thus responds to scholars who call for more research to clarify the consequences of group creativity for group performance (Sung and Choi, 2012). Putting both potency and creativity in the same model is a valuable conceptual endeavor. Although both group potency and group creativity presumably lead to better group performance, literature about the relationship between the two is limited (Reiter-Palmon *et al.*, 2012). A recent literature review about creativity (Zhou and Hoever, 2014) makes no mention of potency. The chapter “Striving for creativity” (Zhou and Ren, 2012) in *The Oxford Handbook of Positive Organizational Scholarship*, makes no mention of group potency. This study considers it plausible that more creative stores build up a stronger potency, thereby developing efforts that make them more effective [Figures 1(a)-(d)]. We consider that unexpected non-significant relationships between store creativity and performance identified in the literature (Merlo *et al.*, 2006) may be explained by missing mediating variables, and one possible relevant mediator is store potency. We posit that a creative retail store develops stronger collective cognitions about the general effectiveness of the group (i.e. group potency), and these cognitions make the store more effective (Stajkovic *et al.*, 2009).

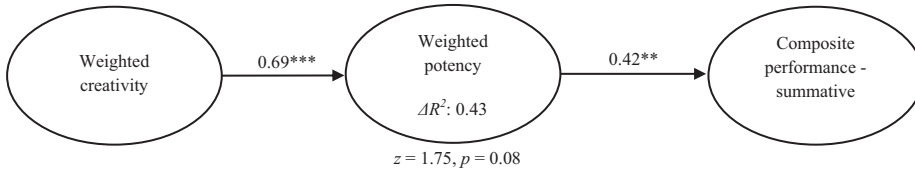
Theory and hypotheses

Creativity as a collective phenomenon

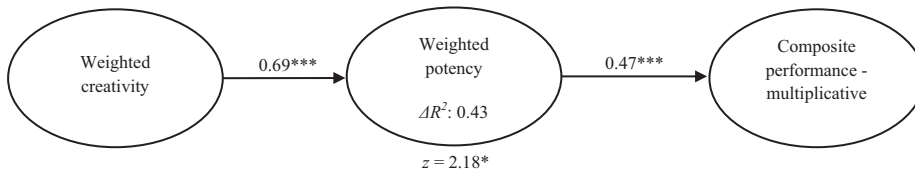
Before presenting arguments supporting the hypotheses, a brief note is necessary regarding the group-level analysis adopted here. Although related, individual and group creativity are different constructs. Group creativity is not the mere sum of group members’ creativity, at least when time is considered (Pirola-Merlo and Mann, 2004). A group with many creative employees is not necessarily highly creative if, for example, the group is unable to make an effective use of the creative resources, or potential, of its members (Taggar, 2002) and/or to implement effectively the “new and useful ideas” generated by individuals (Staw, 2009). Individuals’ creativity may give rise to different levels of group creativity as a consequence of distinct social, communicational, information processing and synergistic processes within different groups (Bechtoldt *et al.*, 2010; Pirola-Merlo and Mann, 2004). Moreover, in some tasks and within some circumstances or contexts (e.g. power, social capital, norms toward conformism versus independence or uniqueness, time constraints, psychological safety), the creative contributions of some individuals to the group creativity may be more salient than



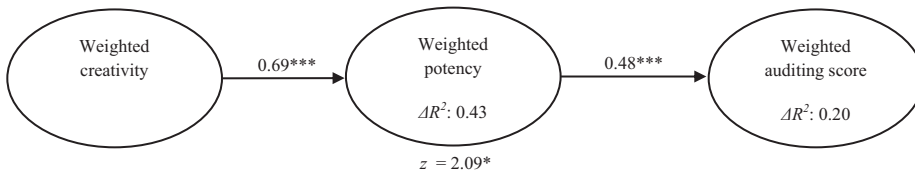
(a)



(b)



(c)



(d)

Notes: (a) Chi-square (df): 4.89 (7); SRMR: 0.03; GFI: 0.98; CFI: 1.00; IFI: 1.00; (b) Chi-square (df): 0.59 (3); SRMR: 0.01; GFI: 1.00; CFI: 1.00; IFI: 1.00; (c) Chi-square (df): 1.10 (3); SRMR: 0.02; GFI: 0.99; CFI: 1.00; IFI: 1.00; (d) Chi-square (df): 1.15 (3); SRMR: 0.01; GFI: 0.99; CFI: 1.00; IFI: 1.00; Paths relative to control variables are not shown; Variables were centered because the post-hoc analysis (see the respective sub-section) includes interactive effects; ΔR² represents unique variance after including control variables; *p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001 (for the z-scores, two-tailed probability is considered)

Figure 1.
SEM (standardized
path coefficients)

others' (Bechtoldt *et al.*, 2010; Paulus *et al.*, 2012; Pirola-Merlo and Mann, 2004). Next, the paper develops arguments explaining how store creativity predicts store performance, and how store potency mediates the relationship between creativity and performance.

Store creativity predicting store performance

Researchers have noted the relevance of finding a balance between providing a strong service orientation and being creative and innovative in retail (Coelho *et al.*, 2011; Gong *et al.*, 2012; Im *et al.*, 2015; Kent, 2007; Merlo *et al.*, 2006; Sonenshein, 2014). Emphasizing the importance of creativity in frontline retail store employees, Coelho *et al.* (2011, pp. 31-32) noted that:

[...] creative employees are more likely to uncover customers' latent needs, to develop a good rapport with customers, and to solve their service problems creatively and effectively, ultimately creating a superior experience.

Kent (2007, p. 734) also argued that "creativity has become more of a required organisational resource and a desirable core competence" in retailing.

Despite this optimism, empirical studies at the collective/store level supporting the relationship between store creativity and performance are scarce. There are reasons to believe that store creativity is positively related to store performance. Creative stores are more prepared to adopt improvised solutions (Cunha *et al.*, 2009) and customized actions in dealing with customers' complaints and demands (Gwinner *et al.*, 2005; Martinaityte and Sacramento, 2013). They deal more effectively with problematic customers or those who present valuable business opportunities (Rego *et al.*, 2012), and are more able to devise creative ways to attract new customers (Martinaityte and Sacramento, 2013). Creative stores are better equipped to provide customers with "memorable" consumption experiences and to satisfy them, to adjust to shifting market conditions, to respond to opportunities and problems in a more flexible way and thus to adapt, grow and compete (Merlo *et al.*, 2006; Rego *et al.*, 2012; Shalley *et al.*, 2004). Creative work environments also have positive effects on employees' job satisfaction, and this positive attitude produces positive customer experiences and heightens customers' satisfaction and loyalty (Gilson *et al.*, 2005; Merlo *et al.*, 2006). Hence:

H1. Store creativity is positively related to store performance.

Store potency predicting performance

One possible mechanism (i.e. mediator) through which store creativity fosters store performance is group/store potency. Group potency refers to cognitions about the *general* effectiveness of the group (i.e. the group believes that it may successfully approach *any* task in a given domain; Stajkovic *et al.*, 2009). Group potency differs from collective/group efficacy in that collective/group efficacy "concerns individuals' beliefs not necessarily shared by others. Thus, while potency is an attribute of groups, collective efficacy is an attribute of individuals" (Guzzo *et al.*, 1993, p. 90; Stajkovic *et al.* 2009). Theoretical and empirical evidence suggests that group potency predicts group performance (Gully *et al.*, 2002; Jung and Sosik, 2003; Stajkovic *et al.*, 2009). These relationships may be explained by tenets of social-cognitive theory (Bandura, 1997), suggesting that forethought gives rise to action, collective experiences and results (Lee *et al.*, 2011; Lester *et al.*, 2002). More specifically, store potency may promote group learning behaviors, which in turn support collective performance (Edmondson and Lei, 2014).

Shared potency beliefs also lead individuals to develop a stronger sense of group membership (Hu and Liden, 2011), which in turn leads individuals to coordinate their work better and provide superior service to customers. As a consequence, work efficiency and effectiveness develop, and customers' satisfaction and loyalty also increase, which in turn boosts sales (Gelade and Young, 2005; Leung, 1997). Cooperative dynamics occurring within more potent stores may also increase shared positive affect among individuals (Rhee and Yoon, 2012), and these positive feelings may radiate and be absorbed by customers via emotional contagion (Pugh, 2001). As a consequence, customers experience more pleasant service encounters and are more inclined to purchase more and to be more loyal, the effect being higher sales performance (Gelade and Young, 2005). Hence:

H2. Store potency is positively related store performance.

Store potency as a mediator

We next explain why more creative stores develop higher potency, thereby being more effective. The paper considers that behaviors (i.e. creativity) may precede beliefs (i.e. the collectively shared belief; Jung and Sosik, 2003; Lester *et al.*, 2002), and such precedence is more preferentially situated at the group than at the individual level. An individual has to adopt actions (e.g. task perseverance) by him/herself to develop his/her belief (e.g. in being effective). But a group, as a whole, may develop a stronger belief that it can be effective if *other* significant group members adopt relevant behaviors. An individual may share with the other group members the collective belief that the group can be effective when observing others' relevant behaviors, even if (s)he does not adopt the behaviors that would conduct to such a belief.

When store members observe that other members are creative and perceive that they may profit from having a stock of others' creative ideas and solutions at their disposal, the store, as a whole, develops a stronger and shared belief that the store will be more potent/effective in pursuing the store's goals. Creative behaviors can be seen as a dynamic stock of resources and capabilities that both the individuals and the group perceive as relevant for improving individual and collective performance (Lester *et al.*, 2002). Sharing creative ideas, plans and solution proposals for dealing with problems and opportunities within a store constitutes a specific form of information flow facilitation (Stasser, 1992) that leads store members, as a whole, to believe that the store has resources to face challenges and opportunities more effectively (de Jong *et al.*, 2005; Jung and Sosik, 2003; Lester *et al.*, 2002; and Frenkel, 2000). Hence:

H3. Store creativity is positively related to store potency.

Considering that store creativity predicts store potency (*H3*) and that store potency predicts store performance (*H2*), it is expectable that store creativity predicts performance through potency. We consider that such mediation is partial because other mechanisms may operate, as discussed above (*H1*). Specifically, store creativity may promote store performance via several mechanisms, and one such mechanism is store potency: creative stores develop a collective sense of being more potent, which in turn helps to increase the store performance. The following hypothesis is thus derived:

H4. Store potency partially mediates the relationship between store creativity and performance.

Method*Sample and procedures*

The study is carried out in a Brazilian retail organization (appliances sector) comprising 160 stores employing 1,794 individuals (55 per cent female; mean age: 29.4, standard deviation [*SD*]: 7.9; employees' mean tenure in the store: 1.6, *SD*: 2.1; 5.5 per cent have nine or fewer schooling years, 71.9 per cent have 12 years, 13.5 per cent have a university degree and 9.1 per cent have a graduate degree). Stores (mean size: 11.2 employees) are led by a supervisor who manages sales clerks, administrative officers and stock clerks.

After securing permission from the organization's top management, the researchers asked the supervisors of each store (at the beginning of a formal meeting in which all supervisors took part) to deliver a questionnaire to their employees. The questionnaire asked employees to anonymously report their perceptions of store creativity and potency, and to send their answers directly to the researcher by post. Instructions were given so that employees interpreted the "store" as the "store's employees as a whole". Three hundred and twenty-six questionnaires, from 46 stores, were received (response rate: 18.2 per cent). Unreliable data from one store (nine participants) were removed. Among the remaining 317 employees (from 45 stores; mean size of each store: 12.9 employees; average number of respondents per store: 7.04), 66.6 per cent are female, the mean age being 27.45 years (*SD*: 7.18), and the mean tenure being 1.60 (*SD*: 1.78). Seven per cent have six or fewer schooling years, 71 per cent have nine years, 15 per cent have 12 years and 7 per cent have at least a university degree. For 20 stores, between four and six employees participate, for 20 stores between seven and nine employees participate, and for five stores between 10 and 14 employees participate. On the whole, the characteristics of the participants are similar to those of the entire organization, but females are somewhat overrepresented. Characteristics of the 45 stores are also similar to those of the non-participating stores (e.g. a *t*-test reveals no significant difference between participating and non-participating stores regarding store size and sales achievement).

Measures

Store performance. Performance[1] at collective (team/organizational) level is a complex, paradoxical and controversial issue in management science (Cameron, 1986; Meyer and Gupta, 1994; Quinn and Rohrbaugh, 1983; Walton and Dawson, 2001). The agreement about organizational performance is "mainly an agreement to disagree" (Cameron, 1986, p. 544). Researchers disagree not only about what performance is but also about the criteria by which to measure it, even when they agree about conceptualizing performance. Different criteria are used by different researchers, and the selected criteria are not neutral, in that different and sometimes even opposite relationships between predictors and performance may be found. One way to handle the issue is using a multidimensional approach and selecting criteria relevant for each specific organization (Carton and Hofer, 2006). This makes the generalizability of findings problematic, but it is more appropriate than simply abandoning the study of the topic (Bluedorn, 1980). With these cautions in mind, we adopt here a multidimensional (and convenience) approach and use data that the participating organization agreed to provide.

The study uses five indicators of store performance, the last three emerging as combinations of the first two. The first indicator is sales achievement (the degree to

which a store reaches its monthly sales target, defined in terms of the percentage of the target). The company's top management determines the target according to the store's size and location, and to the store manager's experience. Although setting targets involves a subjective judgment, an important advantage of this indicator is that performance measured in this way compensates for differences in store characteristics (e.g. location or differences in the local economy). The company's top management provided the store's sales achievement over the three months subsequent to collecting data on potency and creativity. The second indicator is a score (four levels: 1-low, 2-middle, 3-high, 4-very high) resulting from an internal (at the headquarters level) auditing. The score combines two main components:

- (1) net profit (weighted by store size and location); and
- (2) service quality (measured as customer complaints and opinions expressed through surveys).

The company's top management provided the score (no store reaching the very high level) for the three months subsequent to collecting data on potency and creativity. Specific information about the weight of each component was not provided.

The study also computes three "composite performance" indicators through the combination of the two indicators mentioned above:

- (1) composite indicator of performance – summative;
- (2) composite indicator of performance – multiplicative; and
- (3) weighted auditing score.

For the composite indicators 1 and 2, the study creates three levels/terciles (1: low; 2: middle; 3: high) of sales performance and crosses them with the three levels of the auditing indicator. In the summative procedure, each score ("composite indicator of performance – summative") is scored between 2 and 6, resulting from summing both points/levels. In the multiplicative procedure, each score ("composite indicator of performance – multiplicative") is between 1 and 9, resulting from multiplying both points/levels. While the summative procedure assumes that a low score in an indicator may be balanced by a high score in the other indicator, the multiplicative procedure assumes that a low score in one indicator cannot be totally balanced by a high score in the other. The consequence is that, for example, when one indicator is low (i.e. 1) and the other is high (i.e. 3), the resulting summative score is 4, while the multiplicative score is 3. The third composite indicator ("weighted auditing score") results from multiplying the auditing score by the percentage of sales achievement.

Store potency. The study measures store potency with six items from [de Jong et al. \(2005\)](#), who adapted them from [Guzzo et al. \(1993\)](#). A sample item is "This store has confidence in performing the job requirements". Store members report the degree to which each statement is true/false on a five-point Likert scale (0: "completely false"; 4: "completely true"). Cronbach's alphas are 0.79 (individual-level data) and 0.90 (aggregated data; see below). Because the group potency is a *collectively shared* belief of the group that it can be effective, the study considers that a store is potent to the extent that the beliefs are *shared*. Between two stores with the same mean score on potency, the store whose beliefs are more similar (i.e. with lower *SD*) is considered more potent. Thus, the study computes the "weighted store potency" by dividing the mean score of each

store by the *SD* of the individual scores within the same store. Higher weighted store potency means that all respondents within the store are (more) consistent in describing the high potency of the store. Thus, the study considers that “weighted store potency” may reflect the potency of a group better than does its potency’s mean level.

Some clarifying notes are necessary at this point. The literature (Schneider *et al.*, 2002) distinguishes climate (i.e. mean score of individuals’ perceptions within the group) from climate strength (i.e. the degree of within-unit agreement). By analogy, one could distinguish “store potency (mean) level” from “store potency strength”. The study regards such an approach as questionable. Considering the way that potency is defined (i.e. the collectively-*shared* belief of the store’s personnel that the store can be effective), the study considers it implausible to assume that a store is highly potent if the *mean* level of beliefs is high while *sharedness* is low. Symmetrically, the study considers it implausible to assume that a store has a *strong* potency if *sharedness* is high while potency (mean) level is low. The study therefore suggests that a more accurate measure of group potency may be gained through the ratio between the *mean* level and the *sharedness* (strength) degree.

Store creativity. The study measures store creativity with 13 items (at the store level) from Zhou and George (2001). A sample item is “This store comes up with new and practical ideas to improve performance”. Employees report the frequency with which the store adopts each creative behavior on a five-point Likert scale (0: “never”; 4: “always”). Cronbach’s alphas are 0.93 (individual-level data) and 0.96 (aggregated data; see below). Considering arguments presented above for potency, and taking into account that store creativity is a collective/shared phenomenon, the study calculates a “weighted store creativity” score by dividing the mean store creativity within each store by the *SD* of the individual scores on the same store. Higher weighted store creativity means that all respondents within the store are (more) consistent in describing the high creativity of the store. Thus, the study considers that “weighted store creativity” may reflect the creativity of a group better than its creativity mean level. If all members of a store describe the creativity of that store similarly, this consistency makes the mean score more *valid* than if the same mean were to proceed from different scores as reported by different members.

Control variables. The study includes store size (i.e. number of employees), mean education, mean tenure in the store, demographic diversity and previous store sales achievement for control. Store size can influence the way employees interact and cooperate, possibly having an impact on creativity (Tsai *et al.*, 2012) and performance (LePine *et al.*, 2008). Employee tenure (Rego *et al.*, 2012; Rego *et al.*, 2014) and education (Hirst *et al.*, 2009) may relate to creativity or potency (Martinaityte and Sacramento, 2013; van Emmerick *et al.*, 2011). Demographic diversity (i.e. the distributional differences among members of a store with respect to common attributes such as gender, race and education) may affect group creativity and performance by influencing interaction and cooperation between individuals, and facilitating the emergence of heterogeneous perspectives toward problems and opportunities (Elsass and Graves, 1997; Lester *et al.*, 2002; McLeod *et al.*, 1996). The study operationalizes this variable as the sum of the standard-deviations (after centering them because scales are different for different variables) for gender, age, tenure and education within each store, higher scores representing greater diversity (Robertson *et al.*, 2007). Previous store sales achievement (the auditing score was not included because of data unavailability relative

to that specific period from many stores) is also included for control because routine sources may influence performance over a long period (Martinaityte and Sacramento, 2013; Mathieu *et al.*, 2007), and stores with better performance may develop higher potency and, thus, creativity (Jung and Sosik, 2003; Rego *et al.*, 2014).

Aggregating data at the store level. The study computes $ICC(1)$, $ICC(2)$ and $r_{WG(j)}$ to test whether it is appropriate to aggregate individual data at the store level (Biemann *et al.*, 2012; Bliese, 2000; LeBreton and Senter, 2008). While $ICC(1)$ is a measure of within-group consensus, $ICC(2)$ is an indicator of the reliability of the group mean differences. $r_{WG(j)}$ is a measure of inter-rater agreement that compares the observed variances to the variance expected when there is complete lack of agreement between raters (i.e. random responding). Although no absolute standard value for these measures exists, the usual rule of thumb establishes that when r_{WG} exceeds 0.70, and $ICC(1)$ exceeds 0.05 (Bliese, 2000), aggregation is warranted (Cohen *et al.*, 2009). For $ICC(2)$, values greater than 0.60 are usually considered to be sufficient (Bliese, 2000; Chen *et al.*, 2004; Kenny and la Voie, 1985). The mean of $r_{WG(j)}$ values are 0.79 (creativity) and 0.85 (potency), both being strong (LeBreton and Senter, 2008). $ICC(1)$ values are 0.24 and 0.30, respectively, for creativity and potency, and $ICC(2)$ values are 0.75 and 0.69, respectively. These findings suggest that aggregation is justified.

Testing discriminant validity and common source effects. The study carries out a series of dimension-level confirmatory factor analyses to examine whether both variables of the study (at the individual level, $n = 317$, due to the small number of stores) capture distinct constructs versus common source effects. The two-factor model includes six items loading on the potency factor, and 13 items loading on the creativity factor. The model fits the data reasonably well ($SRMR$: 0.05; GFI : 0.86; CFI : 0.89; IFI : 0.90). The single-factor model does not fit the data satisfactorily (e.g. GFI : 0.82) and is poorer than the two-factor model ($\Delta\chi^2_{(1)} = 165.50, p \leq 0.001$).

We compared two models for examining the extent to which the results may be affected by common method variance. The first is the two-factor model mentioned above. The second model is identical to the first except for the addition of a latent method variance factor comprising the 19 indicators representing potency and creativity. The models differ significantly ($\Delta\chi^2_{(19)} = 125.17, p \leq 0.001$), and several fit indices are better for the second model (e.g. GFI : 0.89; CFI and IFI : 0.93). This finding suggests that common method variance would affect the validity of the data if the same employees were used for computing both variables. For this reason, the study randomly split each store so that potency is computed with data from half of the store respondents, and creativity is computed with data from the other half. The correlations between both variables are lower ($r = 0.53, p \leq 0.001$) when this procedure is used than when the same raters are used to measure both variables ($r = 0.84, p \leq 0.001$).

Findings

Table I presents means, standard deviations and correlations. Previous store sales achievement relates to the subsequent store sales achievement. Potency relates positively with creativity, the relationship being stronger when the weighted scores of both measures are used ($r = 0.69, p \leq 0.001$) versus when the mean scores are considered ($r = 0.53, p \leq 0.001$). While the mean creativity does not correlate significantly with any indicator of store performance, the weighted creativity

Table I.
Means, standard deviations and correlations (store level)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Store size (number of employees)	12.89	8.47	-												
2. Mean education ^a	2.22	0.27	0.19	-											
3. Mean tenure in the store (years)	1.56	1.00	0.15	0.32*	-										
4. Demographic diversity	0.00	3.45	0.22	0.01	0.24	-									
5. Previous store sales achievement ^b	80.57	8.47	0.22	-0.17	0.07	0.27	-								
6. Mean creativity (reported by half of store respondents)	2.72	0.38	0.07	-0.10	-0.23	-0.12	0.10	-							
7. Mean potency (reported by the other half)	3.18	0.42	-0.11	-0.14	-0.08	-0.06	0.08	0.53****	-						
8. Weighted creativity (Variable 6 divided by the SD of creativity of the store)	6.12	3.32	-0.11	0.09	-0.23	-0.02	0.17	0.54****	0.39**	-					
9. Weighted potency (Variable 7 divided by the SD of potency of the store)	10.01	8.62	-0.26	-0.01	-0.19	-0.27	-0.08	0.30*	0.50****	0.69****	-				
10. Auditing (1: low; 2: middle; 3: high)	1.96	0.71	-0.34*	-0.10	0.05	0.10	-0.16	0.00	0.35*	0.32*	0.41**	-			
11. Subsequent store sales achievement ^b	96.15	0.19	-0.03	-0.08	-0.10	0.21	0.52****	0.08	-0.03	0.31*	0.20	0.08	-		
12. Composite indicator of performance (summative)	4.02	1.12	-0.21	-0.06	0.02	0.20	0.16	-0.01	0.11	0.34*	0.37**	0.66****	0.70****	-	
13. Composite indicator of performance (multiplicative)	4.07	2.29	-0.21	-0.08	0.05	0.20	0.16	-0.05	0.11	0.35*	0.42**	0.69****	0.66****	0.98****	
14. Weighted auditing score (Variable 10 × Variable 11)	1.89	0.82	-0.29	-0.13	0.01	0.18	0.10	0.02	0.29	0.42****	0.48****	0.89****	0.51**	0.87****	0.90****

Notes: * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$; ^a 1: six or fewer years of schooling; 2: nine years; 3: 12 years; 4: undergraduate university degree or more; ^b percentage of the sales target

relates positively with the five indicators of performance. While mean potency relates positively with only one indicator of store performance (the correlation with the last indicator is significant for $p = 0.051$), the weighted potency relates positively with four indicators of performance. The auditing score and sales performance do not intercorrelate. The strong correlations between those two indicators and the composite indicators are not surprising (the latter is constituted from the former two).

The study tests the hypothesized model through path analysis, a subset of structural equation modeling (SEM; via LISREL; maximum likelihood estimation method). Store size (i.e. number of employees), mean education, mean tenure in the store, demographic diversity and previous store sales achievement (three previous months) are included for control. Because the direct path between creativity and the indicators of performance emerges as non-significant ($H1$ not supported), the paper presents the findings without that path. Figure 1(a)-(d) shows that creativity predicts potency ($H3$ supported), and that potency predicts the auditing score and the three composite measures of performance ($H2$ supported for four indicators of performance). Sobel's test computes the mediating effects of potency in the relationship between creativity and performance. Mediating effects emerge for predicting the multiplicative composite performance ($z = 2.18, p \leq 0.05$) and the weighted auditing score ($z = 2.09, p \leq 0.05$, two-tailed). A modest mediating effect ($z = 1.75, p \leq 0.08$, two-tailed) also emerges for predicting the summative composite performance. Considering that no direct significant path between creativity and performance emerges, the findings suggest an indirect-only mediation (Zhao *et al.*, 2010). Thus, $H4$ is only partially supported for two indicators of performance.

Discussion and conclusions

Main findings and contributions

The findings suggest that store creativity predicts store performance indirectly through store potency. The finding that store potency predicts store performance is consistent with the literature (Gully *et al.*, 2002; Stajkovic *et al.*, 2009) and corroborates evidence suggesting that group potency nurtures collective performance across a wide range of contexts. The main contribution of our study is, however, that store creativity predicts store performance via potency. Although the literature is often optimistic about the relevance of group creativity for group performance, empirical evidence is less optimistic, and some empirical evidence shows no significant relationship between group creativity and performance (Merlo *et al.*, 2006). This study suggests that the effects of store creativity on store performance are not direct, and that they are instead mediated by mechanisms such as group potency. The fact that a store is able to produce creative ideas does not mean that those ideas are put into practice and translated into creative/innovative behaviors toward the customers. Mediators are necessary to translate creativity into performance. The findings make this explanation plausible: potency may be one such mediator. Future studies may incorporate this and other mediators (e.g. customers' satisfaction, loyalty and perceived service quality) in the relationship between creativity and performance.

The fact that the mediated relationship between store creativity and store performance is found for predicting only some composite measures of performance is also an important contribution. Performance is multidimensional, although studies tend

to include one-dimensional measures. Store creativity may explain *integrative* measures of performance, even without predicting *specific* performance indicators. The study does not defend that store creativity is not relevant for those specific measures; rather, it suggests that future investigations may include multidimensional measures of performance as much as possible. One should not ignore the fact, however, that sales performance has weaknesses as an indicator of store performance. The way company management defines a sales target may suffer from biases and is not sufficiently grounded on pertinent data. Moreover, sales achievement is a modest indicator of store performance. For example, a store may increase sales at the expense of profits, and/or adopt questionable sales practices that negatively impact the customer satisfaction and loyalty in the middle and long run. Such idiosyncrasies of this indicator may explain why the independent/mediating variables of this study do not predict sales achievement.

The fact that no direct relationship between store creativity and performance emerges may have at least three explanations. The first is the small sample size (decreasing the statistical power), with stores belonging to a single organization operating in a single sector. The second explanation is that other variables moderate such a relationship (Martinaityte and Sacramento, 2013). For example, employees may be more motivated to capitalize on their collective creativity if they share a greater sense of psychological safety (Edmondson and Lei, 2014), with these conditions leading them to use creativity and implement creative ideas in risky situations. The third explanation, which our findings make plausible, is discussed above: mediators are necessary to translate creativity into performance. Creativity does not translate directly into performance, and mediating mechanisms operating in the process are necessary. Thus, future studies should include a larger sample, collected in different organizations, and include other mediators (e.g. proactive behaviors, cooperative behaviors, customer satisfaction and loyalty and customer perceived service quality) and moderators (e.g. psychological safety, the broader context, trust in leaders and leader-member exchange).

Although not central to the hypothesized model, a relevant methodological contribution that helps to explain the findings relates to how the measures of store creativity and store potency are operationalized. The hypothesized model (at least, the most relevant paths) is only empirically supported when weighted scores of creativity and potency (i.e. the mean score at the store level is weighted by the dispersion of the individual scores on the store), instead of mean scores, are used. Possibly, the weighted scores are better predictors because they are more valid in representing the *real* potency and creativity of the stores. By considering store creativity and potency as collective phenomena, the paper considers it plausible to assume that more *consistent* descriptions of a store are more valid than *disparate* descriptions. Future studies should continue to explore the issue in other contexts and with different variables to clarify whether the predictive value of the weighted scores found here are, or are not, a product of chance, and for which variables they are valid for measurement.

Limitations and (other) future studies

The study is not without limitations, and future studies are necessary to clarify if such limitations may have influenced the empirical findings. The first limitation relates to how store creativity was measured (via self-reports of store members), and this may

explain some findings. Other sources (e.g. leaders or customers) should be used. Countering authors who suggest that supervisors are the most appropriate raters of employee creativity (Shalley *et al.*, 2004), this study considers that for predicting the store performance holistically there is no “one best single source”. The best source may be a combination of sources. Being a multidimensional construct, performance is influenced by a combination of different sorts of creativity within a store, and there are reasons to believe that different sources are able to describe such different sorts of creativity. For example: creativity aimed at helping colleagues to deal with a problematic customer should be better reported by stores’ members; creativity adopted by individuals when dealing directly with customers is better reported by customers (Madjar and Ortiz-Walters, 2008). A high level of creativity toward one specific target is not necessarily associated with a higher level of creativity toward other targets. The performance of the store is influenced by the combination of the different sorts of creativity, and the best way to measure the store creativity is to consider its sum (e.g. sales performance may be more affected by creativity observed, experienced and described by customers). Thus, different types of creativity are more correctly considered as formative rather than reflective indicators of the store creativity (Diamantopolous and Winklhofer, 2001). Future studies should test this possibility. If the arguments presented above are valid, future studies should use creativity reported by different sources as formative indicators of the store creativity measure. Objective measures of creativity may also be used (Bechtoldt *et al.*, 2010).

A second limitation relates to how this study measures store performance. Future studies should include a wider range of financial and economic indicators (e.g. return on sales, sales per employee) and avoid auditing indicators produced internally. A third issue relates to causality. Assuming that store performance has enduring causes (data showing that previous sales achievement predicts subsequent sales achievement, supporting this proposition), one may consider that stores with higher performance develop stronger beliefs in store effectiveness and greater creativity (de Jong *et al.*, 2005; Jung and Sosik, 2003). Thus, future studies should adopt a longitudinal design to test these reciprocal effects. Such a method would also allow testing possible reciprocal influences between potency and creativity.

There are theoretical reasons to posit both causality nexuses between both variables, and only future studies with longitudinal, or experimental or quasi-experimental designs may clarify the issue. For example, the study considers it reasonable to expect (Bandura, 1997) that more potent stores, being more “adaptable and more willing to explore and experiment with new perspectives, facets, and procedures” (Zhang *et al.*, 2011, p. 855), are more likely to develop new and useful ideas to reach the store’s goals. Store potency leads employees to work together and, with tenacity, to reach the store’s targets, even in the face of difficulties and drawbacks (Bandura, 1997, 2000). One way to succeed in doing so is to adopt new and useful ideas, or early revision of ideas that do not produce the desired results, namely, by combining tested ideas with new ones (Harvey, 2014).

The small sample size is an additional explanation for the non-significant direct relationship between creativity and performance. Moreover, splitting the store to gain different measures of different variables led to having, in some stores, only two employees to describe potency and/or creativity. In addition, the study was carried out within a single organization of a specific sector (i.e. appliance) that may depend heavily

on sales force “consultancy”[2]. Although controlling for extraneous influences on the stores, this condition limits the generalizability of the findings. Therefore, future studies should collect a larger sample and include stores with at least three raters per variable. Testing whether the findings are replicated in stores within different kinds of sectors and organizations is also recommended.

Implications for management

Despite these limitations, the study indicates that cultivating creativity (via the selection of creative individuals and nurturing contextual conditions that encourage creativity, including through incentives) may have at least indirect effects on store performance. Retail organizations may also profit by developing stores with high potency via other pathways. Considering the literature (Hu and Liden, 2011; de Jong *et al.*, 2005; Rego *et al.*, 2013), managers may facilitate such a characteristic in several ways, including:

- adopting authentic leadership behaviors;
- promoting a virtuous store climate;
- supporting employees as individuals and as a collective, treating them with dignity and respect and helping them to grow and succeed;
- providing the store with the necessary resources to perform effectively; and
- clarifying the store’s goals and processes.

Concluding remarks

This study makes several contributions. First, group-level creativity continues to be an “under-researched area” (James and Drown, 2012, p. 24). This study contributes to the field. Second, few studies have related group potency to group creativity, as does the present investigation. Still fewer studies have focused on the impact of group creativity on performance via potency, as our research does. Third, although the literature is clear about the importance of group potency as an antecedent of group performance, limited studies have tested this relationship in the retail sector. Fourth, the non-significant direct relationship between store creativity and performance invites researchers to include a wider range of performance variables in their studies, and to consider store performance across longer periods of time. Creative initiatives may require a longer incubation period before they have an impact on group performance. More importantly, the study presents theoretical and empirical evidence suggesting that the relationship between store creativity and performance may be indirect, potency being a potential mediator. Fifth, the study indicates that future research focusing on group level constructs, such as group potency and group creativity, may consider not only the mean score within each group but also the discrepancy/consistency among the employees’ perceptions within the group. The fact that the study is conducted in an understudied national context (that of Brazil) also makes it a valuable contribution to the organizational behavior field, in which the imbalance favoring North-American and Asian contexts is evident. In an age of global standardization, allowing retail teams to preserve some creativity and the capacity of responding to local needs may indeed constitute an important advantage for organizations in the sector.

Notes

1. Some authors differentiate between organizational performance and organizational effectiveness (Hannan and Freeman, 1977), while others do not (Henri, 2004).
2. We are grateful to one reviewer for having pointed out this particularity.

References

- Bandura, A. (1997), *Self-Efficacy: The Exercise of Control*, Freeman, New York, NY.
- Bechtoldt, M.N., De Dreu, C.K.W. and Choi, H.S. (2010), "Motivated information processing, social tuning, and group creativity", *Journal of Personality and Social Psychology*, Vol. 9 No. 4, pp. 622-637.
- Biemann, T., Cole, M.S. and Voelpel, S. (2012), "Within-group agreement: on the use (and misuse) of rwg and rwg(J) in leadership research and some best practice guidelines", *Leadership Quarterly*, Vol. 23 No. 1, pp. 66-80.
- Bliese, P.D. (2000), "Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis", in Klein, K.J. and Kozlowski, S.W. (Eds), *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions*, Jossey-Bass, San Francisco, CA, pp. 349-381.
- Bluedorn, A.C. (1980), "Cutting the Gordian knot: a critique of the effectiveness tradition in organizational research", *Sociology and Social Research*, Vol. 64 No. 1, pp. 477-496.
- Boies, K., Fiset, J. and Gill, H. (2015), "Communication and trust are key: unlocking the relationship between leadership and team performance and creativity", *The Leadership Quarterly*, Vol. 26 No. 6, pp. 1080-1094.
- Cameron, K.S. (1986), "Effectiveness as paradox: consensus and conflict in conceptions of organizational effectiveness", *Management Science*, Vol. 32 No. 5, pp. 539-553.
- Carmeli, A.M. and Paulus, P.B. (2015), "CEO ideational facilitation leadership and team creativity: the mediating role of knowledge sharing", *Journal of Creative Behavior*, Vol. 49 No. 1, pp. 53-75.
- Carton, R.B. and Hofer, C.W. (2006), *Measuring Organizational Performance*, Edward Elgar, Cheltenham.
- Chen, G., Mathieu, J.E. and Bliese, P.D. (2004), "A framework for conducting multi-level construct validation", in Yammarino, F.J. and Dansereau, F. (Eds), *Research in Multilevel Issues: Multilevel Issues in Organizational Behavior and Processes*, Elsevier, Oxford, pp. 273-303.
- Coelho, F., Augusto, M. and Lages, L.F. (2011), "Contextual factors and the creativity of frontline employees: the mediating effects of role stress and intrinsic motivation", *Journal of Retailing*, Vol. 87 No. 1, pp. 31-45.
- Cohen, A., Doveh, E. and Nahum-Shani, I. (2009), "Testing agreement for multi-item scales with the indices $r_{WG(j)}$ and $AD_{M(j)}$ ", *Organizational Research Methods*, Vol. 12 No. 1, pp. 148-164.
- Cunha, M.P., Rego, A. and Kamoche, K. (2009), "Improvisation in service recovery", *Managing Service Quality*, Vol. 19 No. 6, pp. 657-669.
- De Jong, A., de Ruyter, K. and Wetzels, M. (2005), "Antecedents and consequences of group potency: a study of self-managing service teams", *Management Science*, Vol. 51 No. 4, pp. 1610-1625.
- Diamantopolous, A. and Winklhofer, H.M. (2001), "Index construction with formative indicators: an alternative to scale development", *Journal of Marketing Research*, Vol. 38 No. 2, pp. 269-277.

- Edmondson, A.C. and Lei, Z. (2014), "Psychological safety: the history, renaissance, and future of an interpersonal construct", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 1 No. 1, pp. 23-43.
- Elsass, P.M. and Graves, L.M. (1997), "Demographic diversity in decision-making groups: the experiences of women and people of color", *Academy of Management Review*, Vol. 22 No. 4, pp. 946-973.
- Gelade, G.A. and Young, S. (2005), "Test of a service chain model in the retail banking sector", *Journal of Occupational and Organizational Psychology*, Vol. 78 No. 1, pp. 1-22.
- Gilson, L.L., Mathieu, J.E., Shalley, C.E. and Ruddy, T.M. (2005), "Creativity and standardization: complementary or conflicting drivers of team effectiveness?", *Academy of Management Journal*, Vol. 48 No. 3, pp. 521-531.
- Gong, Y., Cheung, S.Y., Wang, M. and Huang, J.C. (2012), "Unfolding the proactive process for creativity: integration of the employee proactivity, information exchange, and psychological safety perspectives", *Journal of Management*, Vol. 38 No. 5, pp. 1611-1633.
- Gully, S.M., Joshi, A., Incalcaterra, K.A. and Beaubien, J.M. (2002), "A meta-analysis of team-efficacy, potency, and performance: interdependence and level of analysis as moderators of observed relationships", *Journal of Applied Psychology*, Vol. 87 No. 5, pp. 819-832.
- Guzzo, R.A., Yost, P.R., Campbell, R.J. and Shea, G.P. (1993), "Potency in groups: articulating a construct", *British Journal of Social Psychology*, Vol. 32 No. 1, pp. 87-106.
- Gwinner, K.P., Bitner, M.J., Brown, S.W. and Kumar, A. (2005), "Service customization through employee adaptiveness", *Journal of Service Research*, Vol. 8 No. 2, pp. 131-148.
- Hannan, M.T. and Freeman, J. (1977), "The population ecology of organizations", *American Journal of Sociology*, Vol. 82 No. 5, pp. 924-964.
- Harvey, S. (2014), "Creative synthesis: exploring the process of extraordinary group creativity", *Academy of management Review*, Vol. 39 No. 3, pp. 324-343.
- Henri, J. (2004), "Performance measurement and organizational effectiveness: bridging the gap", *Managerial Finance*, Vol. 30 No. 6, pp. 93-123.
- Hirst, G., van Dick, R. and van Knippenberg, D. (2009), "A social identity perspective on leadership and employee creativity", *Journal of Organizational Behavior*, Vol. 30 No. 7, pp. 963-982.
- Hu, J. and Liden, R.C. (2011), "Antecedents of team potency and team effectiveness: an examination of goal and process clarity and servant leadership", *Journal of Applied Psychology*, Vol. 96 No. 4, pp. 851-862.
- Im, H., Hokanson, B. and Johnson, K.P. (2015), "Teaching creative thinking skills: a longitudinal study", *Clothing and Textiles Research Journal*, Vol. 33 No. 2, pp. 129-142.
- James, K. and Drown, D. (2012), "Organizations and creativity: trends in research, status of education and practice, agenda for the future", in Mumford, M. (Ed.), *Handbook of Organizational Creativity*, Academic Press, London, pp. 17-38.
- Jung, D.I. and Sosik, J.J. (2003), "Group potency and collective efficacy: examining their predictive validity, level of analysis, and effects of performance feedback on future group performance", *Group and Organization Management*, Vol. 28 No. 1, pp. 366-391.
- Kenny, D.A. and la Voie, L. (1985), "Separating individual and group effects", *Journal of Personality and Social Psychology*, Vol. 48 No. 2, pp. 339-348.
- Kent, T. (2007), "Creative space: design and the retail environment", *International Journal of Retail & Distribution Management*, Vol. 35 No. 9, pp. 734-745.

- LeBreton, J.M. and Senter, J.L. (2008), "Answers to 20 questions about interrater reliability and interrater agreement", *Organizational Research Methods*, Vol. 11 No. 1, pp. 815-852.
- Lee, C., Farh, J. and Chen, Z. (2011), "Promoting group potency in project teams: the importance of group identification", *Journal of Organizational Behavior*, Vol. 32 No. 8, pp. 1147-1162.
- LePine, J., Piccolo, R., Jackson, C., Mathieu, J. and Saul, J. (2008), "A meta-analysis of teamwork processes: tests of a multidimensional model and relationships with the team effectiveness criteria", *Personnel Psychology*, Vol. 61 No. 2, pp. 273-307.
- Lester, S.W., Meglino, B.M. and Koorsgaard, M.A. (2002), "The antecedents and consequences of group potency: a longitudinal investigation of newly formed work groups", *Academy of Management Journal*, Vol. 45 No. 2, pp. 352-368.
- Leung, K. (1997), "Relationships among satisfaction, commitment, and performance: a group-level analysis", *Applied Psychology: An International Review*, Vol. 46 No. 2, pp. 199-206.
- Leung, K. and Jie, W. (2015), "Social processes and team creativity in multicultural teams: a socio-technical framework", *Journal of Organizational Behavior*, Vol. 36 No. 7, pp. 1008-1025.
- McLeod, P.L., Lobel, S.A. and Cox, T.H. Jr. (1996), "Ethnic diversity and creativity in small groups", *Small Group Research*, Vol. 27 No. 2, pp. 246-264.
- Madjar, N. and Ortiz-Walters, R. (2008), "Customers as contributors and reliable evaluators of creativity in the service industry", *Journal of Organizational Behavior*, Vol. 29 No. 4, pp. 949-966.
- Martinaityte, I. and Sacramento, C.A. (2013), "When creativity enhances sales effectiveness: the moderating role of leader-member exchange", *Journal of Organizational Behavior*, Vol. 34 No. 7, pp. 974-994.
- Mathieu, J., Ahearne, M. and Taylor, S.R. (2007), "A longitudinal cross-level model of leader and salesperson influences on sales force technology use and performance", *Journal of Applied Psychology*, Vol. 92 No. 2, pp. 528-537.
- Merlo, O., Bell, S.J., Mengüç, B. and Whitwell, G.J. (2006), "Social capital, customer service orientation and creativity in retail stores", *Journal of Business Research*, Vol. 59 No. 12, pp. 1214-1221.
- Meyer, M.W. and Gupta, V. (1994), "The performance paradox", in Staw, B.M. and Cummings, L.L. (Eds), *Research in Organizational Behavior*, JAI Press, Greenwich, CT, Vol. 16, pp. 309-369.
- Paulus, P.B., Dzindolet, M. and Kohn, N.W. (2012), "Collaborative creativity and team innovation", in Mumford, M.D. (Ed.), *Handbook of Organizational Creativity*, Academic Press, New York, NY, pp. 327-357.
- Pirola-Merlo, A. and Mann, L. (2004), "The relationship between individual creativity and team creativity: aggregating across people and time", *Journal of Organizational Behavior*, Vol. 25 No. 2, pp. 235-257.
- Pugh, S.D. (2001), "Service with a smile: emotional contagion in the service encounter", *Academy of Management Journal*, Vol. 44 No. 5, pp. 1018-1027.
- Quinn, R.E. and Rohrbaugh, J. (1983), "A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis", *Management Science*, Vol. 29 No. 1, pp. 363-377.
- Rego, A., Reis Júnior, D., Cunha, M.P., Stallbaum, G. and Neves, P. (2014), "Store creativity mediating the positive affective tone and performance relationship", *Managing Service Quality*, Vol. 24 No. 1, pp. 63-85.

- Rego, A., Sousa, F., Marques, S. and Cunha, M.P. (2014), "Hope and positive affect mediating the authentic leadership and creativity relationship", *Journal of Business Research*, Vol. 67 No. 2, pp. 200-210.
- Rego, A., Sousa, F., Marques, S. and Cunha, M.P. (2012), "Retail employees' self-efficacy and hope predicting their positive affect and creativity", *European Journal of Work and Organizational Psychology*, Vol. 21 No. 2, pp. 923-945.
- Rego, A., Vitória, A., Magalhães, A., Ribeiro, N. and Cunha, M.P. (2013), "Are authentic leaders associated with more virtuous, committed and potent teams?", *The Leadership Quarterly*, Vol. 24 No. 1, pp. 61-79.
- Reiter-Palmon, R., Wigert, B. and de Vreede, T. (2012), "Team creativity and innovation: the effect of group composition, social processes, and cognition", in Mumford, M. (Ed.), *Handbook of Organizational Creativity*, Academic Press, London, pp. 295-326.
- Rhee, S. and Yoon, H.J. (2012), "Shared positive affect in workgroups", in Cameron, K.S. and Spreitzer, G. (Eds), *The Oxford Handbook of Positive Organizational Scholarship*, Oxford University Press, New York, NY, pp. 215-227.
- Robertson, Q.M., Sturman, M.C. and Simons, T.L. (2007), "Does the measure of dispersion matter in multilevel research? A comparison of the relative performance of dispersion indexes", *Organizational Research Methods*, Vol. 10 No. 4, pp. 564-588.
- Schneider, B., Salvaggio, A.N. and Subirats, M. (2002), "Climate strength: a new direction for climate research", *Journal of Applied Psychology*, Vol. 87 No. 2, pp. 220-229.
- Sergeant, A. and Frenkel, S. (2000), "When do customer contact employees satisfy customers?", *Journal of Service Research*, Vol. 3 No. 1, pp. 18-34.
- Shalley, C.E., Zhou, J. and Oldham, G.R. (2004), "The effects of personal and contextual characteristics on creativity: where should we go from here?", *Journal of Management*, Vol. 30 No. 6, pp. 933-958.
- Shin, S.J. and Zhou, J. (2007), "When is educational specialization heterogeneity related to creativity", *Journal of Applied Psychology*, Vol. 92 No. 6, pp. 1709-1721.
- Sonenshein, S. (2014), "How organizations foster the creative use of resources", *Academy of Management Journal*, Vol. 57 No. 3, pp. 814-848.
- Stajkovic, A.D., Lee, D. and Nyberg, A.J. (2009), "Collective efficacy, group potency, and group performance: meta-analyses of their relationships, and test of a mediation model", *Journal of Applied Psychology*, Vol. 94 No. 3, pp. 814-828.
- Stasser, G. (1992), "Pooling of unshared information during group discussions", in Worchel, S., Wood, W. and Simpson, J.A. (Eds), *Group Process and Productivity*, Sage, Newbury Park, CA, pp. 48-67.
- Staw, B. (2009), "Is group creativity really an oxymoron? Some thoughts on bridging the cohesion-creativity divide", *Research on Managing Groups and Teams*, Vol. 12 No. 1, pp. 311-323.
- Sung, S.Y. and Choi, J.N. (2012), "Effects of team knowledge management on the creativity and financial performance of organizational teams", *Organizational Behavior and Human Decision Processes*, Vol. 118 No. 1, pp. 4-13.
- Taggar, S. (2002), "Individual creativity and group ability to utilize individual creative resources: a multilevel model", *Academy of Management Journal*, Vol. 45 No. 2, pp. 315-330.
- Tsai, W.C., Chi, N.W., Grandey, A.A. and Fung, S.C. (2012), "Positive group affective tone and team creativity: negative group affective tone and team trust as boundary conditions", *Journal of Organizational Behavior*, Vol. 33 No. 5, pp. 638-656.

-
- Walton, E.J. and Dawson, S. (2001), "Managers' perceptions of criteria of organizational effectiveness", *Journal of Management Studies*, Vol. 38 No. 2, pp. 173-199.
- Zhang, A.Y., Tsui, A.S. and Wang, D.X. (2011), "Leadership behaviors and group creativity in Chinese organizations: the role of group processes", *The Leadership Quarterly*, Vol. 22 No. 5, pp. 851-862.
- Zhao, X., Lynch, J. Jr. and Chen, Q. (2010), "Reconsidering Baron and Kenny: myths and truths about mediation analysis", *Journal of Consumer Research*, Vol. 37 No. 2, pp. 197-206.
- Zhou, J. and George, J.M. (2001), "When job dissatisfaction leads to creativity: encouraging the expression of voice", *Academy of Management Journal*, Vol. 44 No. 4, pp. 682-696.
- Zhou, J. and Hoever, I.J. (2014), "Research on workplace creativity: a review and redirection", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 1 No. 1, pp. 333-359.
- Zhou, J. and Ren, R. (2012), "Striving for creativity: building positive contexts in the workplace", in Cameron, K.S. and Spreitzer, G. (Eds), *The Oxford Handbook of Positive Organizational Scholarship*, Oxford University Press, New York, NY, pp. 97-109.

Further reading

- Bandura, A. (2000), "Exercise of human agency through collective-efficacy", *Current Directions in Psychological Science*, Vol. 9 No. 3, pp. 75-78.
- Kirby, J. (2005), "Toward a theory of high performance", *Harvard Business Review*, Vol. 83 No. 7, pp. 30-39.

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