DOI: 10.1111/emre.12535

SPECIAL ISSUE ARTICLE

EMR European Management Review
The Journal of The European Academy of Management

# How agency and self-efficacy moderate the effects of strategic improvisational behaviors on sales performance: Evidence from an emerging market

**Magnus Hultman**[1] | **Nathaniel Boso**[2,3] | **Abena Animwaa Yeboah-Banin**[4] | **Ian Hodgkinson**[5] | **Anne L. Souchon**[5] | **Ekaterina Nemkova**[6] | **Joao Oliveira**[7] | **Paul Hughes**[8]

[1]Goodman School of Business, Brock University, St. Catharines, Ontario, Canada

[2]KNUST School of Business, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

[3]Gordon Institute of Business Science, University of Pretoria, Pretoria, South Africa

[4]Department of Communication Studies, University of Ghana, Legon, Ghana

[5]School of Business and Economics, Loughborough University, Loughborough, UK, Loughborough, UK

[6]IÉSEG School of Management, Paris, France

[7]Essex Business School, University of Essex, Southend on Sea, UK

[8]School of Business, University of Leicester, Leicester, LE2 1RQ, UK

**Correspondence**
Magnus Hultman, Goodman School of Business, Brock University, St. Catharines, ON, Canada.
Email: mhultman@brocku.ca

**Abstract**

This study develops and tests arguments that improvisation is not universal in its benefits for the firm, but rather its multidimensional characteristics (action-orientation, creativity, and spontaneity) hold differential performance effects. The study further examines whether these relationships are contingent upon individual agency and self-efficacy. Drawing on primary data from industrial sales account managers in Ghana, the study finds that an increasing level of action-orientation is associated with decreases in perceived sales performance and the decrease in performance is more pronounced under conditions of stronger sense of agency and self-efficacy. Similarly, an increasing level of creativity is associated with decreases in perceived sales performance when agency is stronger. However, an increasing level of spontaneity is associated with increases in performance and this increase is strengthened under conditions of stronger sense of self-efficacy. The study concludes that the effect of strategic improvisation on sales performance outcome within the context of an emerging economy (such as Ghana) is more nuanced than established improvisation literature suggests.

**KEYWORDS**

action-orientation, agency, creativity, emerging economy, improvisation, perceived sales performance, self-efficacy, spontaneity

## INTRODUCTION

There is limited fine-grained theory and evidence about the occurrence of strategic improvisation and when it generates value for firms operating in fast changing and precarious market environments. Strategic improvisation encompasses improvisational activities that can shape firm-level goals and performance (Cunha et al., 2016). Such improvised activities are often defined as "the spontaneous and creative process of attempting to achieve an objective in a new way" (Vera & Crossan, 2005, p. 733), highlighting the importance of realized actions (Cunha et al., 2002; Pina e Cunha et al., 1999), of extemporaneousness (Moorman & Miner, 1998), and of inventiveness/creativity (Kamoche et al., 2003; Kamoche & Cunha, 2001; Nemkova et al., 2015). Understood as the simultaneous enactment of strategy composition and performance (Perry, 1991), strategic improvisation is observed to encompass "a reduced temporal gap between the planning and implementation of unique actions … it applies to actions and decisions that are novel, or deviations from standard practices" (Bergh & Lim, 2008, p. 599).

While studies have captured the strategic improvisation construct as an umbrella term encompassing a complex set of organizational processes (Pina e Cunha et al., 2014), at its core is individual decision practices and actions. Strategic improvisation (hereafter improvisation) has been conceptualized as a three-dimensional construct comprising elements of creativity, spontaneity, and action-orientation (Nemkova et al., 2015). Specifically, creativity encapsulates generation of novel and useful solutions to emergent and neglected problems and opportunities (Evans et al., 2012; Proctor, 1991).

  

Spontaneity captures ability to react to situations and make decisions "in the moment" (Souchon et al., 2016). Action-orientation consists of a willingness to perform intended activities to address imminent problems (Hmieleski et al., 2013). As discussed by Nemkova et al. (2015, p. 44): "The spontaneity dimension is related to time orientation, meaning that people react to situations and make decisions in the moment rather than anticipate what might happen […] The creativity dimension of improvisation relates to the search for novelty and usefulness while making decisions […] Finally, improvisation incorporates action orientation, which reflects managers' ability to maintain an activity and focus their attention on imminent problems." While previous research has made efforts to advance knowledge on the dimensionality of the improvisation construct (e.g., Ciuchta et al., 2021; O'Toole et al., 2020), knowledge is lacking on the extent to, and the conditions under which, the individual dimensions of improvisation contribute to firm-level outcomes.

Thus, the objective of this study is to explore the microfoundation of the strategic improvisation construct my examining the relationship between its conceptual components (i.e., spontaneity, creativity, and action-orientation) and sales performance (a firm-level outcome), and the psychological processes under which these relationships are more or less pronounced. Accordingly, this study examines the research question: What are the forms of the relationships between improvisational behaviors and sales performance, and under what conditions are these relationships more or less pronounced? In answering this research question, we advance the existing improvisation literature by demonstrating how each component element uniquely contribute to sales performance. The study further advances the improvisation literature by identifying individual agency and self-efficacy as two psychological processes to explain the conditions under which improvisational behaviors are more or less related to sales performance (Shalley et al., 2004; Singh & Koshy, 2010; Sousa & Coelho, 2011). Agency is defined as an individual's ability to make decisions, take purposeful action, and influence decision-making (Corbett et al., 2018; Lawrence & Suddaby, 2006; Wolfgramm et al., 2015). Because agency enables individuals to be increasingly purposeful and persistence when making decisions, greater agency may minimize the extent to which improvisational behaviors contribute to sales performance. Additionally, self-efficacy captures individuals' belief in their own abilities to meet challenges before them and to effectively complete tasks (Akhtar, 2008). Because self-efficacy highlights individuals' overall belief in their ability to succeed, greater self-efficacy may be associated with a stronger relationship improvisational behaviors and sales performance.

The unique contextual setting of the study is one where use of improvisation is salient and relevant in solving organizational problems under unpredictable and precarious business environment conditions. To test the study's hypotheses, therefore, primary data are obtained from sales managers involved in complex business-to-business sales negotiations with industrial customers where competence in finding creative, spontaneous, and actionable solutions to imminent customer problems is very important. This study examines the behavior of industrial sales managers in Ghana, a turbulent emergent economy market that is experiencing significant market restructuring and institutional changes. The empirical setting for this study addresses several calls on researchers to examine the improvisation construct in evolving and fast changing industrial and market settings (e.g., Panagopoulos et al., 2011).

## THEORY AND HYPOTHESIS DEVELOPMENT

### Improvisation as a choice-action process

Decision theory suggests that decision choices may be driven by either normative or descriptive approaches (Cabantous & Gond, 2011; Nemkova et al., 2012; Nutt, 2008). The traditional normative decision-making perspective argues that individuals make optimal and rational choices based on formalized generation, evaluation, and utilization of information surrounding situations (Cao et al., 2019). The dominant theme of the normative decision-making approach suggests that organizations should examine their environment and then derive lists of possible decisions (Bell et al., 1988). For this, they need to initially develop a set of objective criteria to evaluate alternatives. Therefore, decision-making represents a series of sequential and analytical processes that include collection and analysis of information (e.g., surveys and focus groups), formulation of different alternatives of action, evaluation of these alternatives, and making a choice that will maximize the outcomes. Here, individuals draw on mental frameworks to guide decision choices (Simon, 1960). Drawing from cognitive theories, mental frameworks (e.g., Gaglio & Katz, 2001) such as cognitive schemas (e.g., Baron & Ensley, 2006) determine how individual decision-makers respond to new information. For instance, individuals may use customer problem alertness schemas to identify problems and respond to this new information by systematically designing rational solutions to resolve the problem (Gaglio & Katz, 2001). Consequently, the rational-design literature emphasizes a normative step-by-step approach that is grounded on formal information processing as a precursor to effective selling (Anderson & Huang, 2006; Moncrief & Marshall, 2005). The rational-planning model, as has been observed in emerging East Asian markets, constitutes an example of such type of approach (Hughes et al., 2018).

However, we argue that in the current era where sales success is based on contextual responsiveness (Wang & Netemeyer, 2004), the descriptive decision approach offers more insight (Locander et al., 2014; Nemkova et al., 2012). In reality, "decision makers satisfy instead of optimize, rarely engage in comprehensive search and discover their goals in the process of searching" (Eisenhardt & Zbaracki, 1992, p. 22). A tenet of descriptive decision theory is that decision choices are not context free and often "flow from cognitive limitations, political processes, routines, and environmental constraints" (Haley & Stumpf, 1989, p. 447). Such notion often manifests itself, in practical terms, through the existence of a discrepancy between what organizations expect of their staff and what staff are themselves more likely to do (Crossan et al., 2005). This suggests that choices are inherently bounded in rationality (Etzioni, 2014), as human rationality has its natural limitations due to the psychological ability to process information and draw conclusions (Simon, 1955). To remove this limitation, individuals must focus on cues present within given situations to respond quickly and appropriately to unpredictable events (Mendonça et al., 2004) and identify situation-relevant solutions and opportunities (Bonney & Williams, 2009). In addition to situational cues, individuals also rely on heuristics, experience, and intuition to devise useful solutions to problems (Eling et al., 2014; Hodgkinson & Sadler-Smith, 2018; Leybourne & Sadler-Smith, 2006). For instance, decisions following the descriptive school of thought can be linked to "fast and frugal" decision-making where a decision-maker relies on a repertoire of simple heuristics, including the Recognition heuristic and the Take the Best heuristic (Goldstein & Gigerenzer, 2002). The former allows for exploiting knowledge gaps whereas the latter deliberately ignores information (is akin to information disavowal). Therefore, rather than using information to plan future choices (as prescribed by the normative approach), in the descriptive approach, individuals are in tune with what is happening in the "here and now" to inform behavior and choice options within the given situation (Wiltbank et al., 2006). Such phenomenon is appropriately described by Hodgkinson et al. (2009) as knowing the "right" course of action but without knowing why or, in other words, as improvisation in decision-making.

Because sales situations are typically ambiguous (Wang & Netemeyer, 2004) due to the closeness of the sales function to customers' evolving problems (Kim et al., 2019), the most plausible options often tend to consist of descriptive choices that emphasize unplanned solutions. Because sales roles are largely unstructured and often self-governed (Agnihotri et al., 2013), sales account managers often choose to "delight customers in unconventional ways" through their extemporaneous decision actions (Agnihotri et al., 2013, p. 2). Moreover, behaviors associated with improvisation (e.g., Strutton et al., 2009) typically enable decision-makers to better cope with challenging and vaguely structured situations such as under crises (e.g., Hughes et al., 2020) and often experienced in the sales context (Wang & Netemeyer, 2004) and, thus, to contribute to enhance organizational performance (e.g., Agnihotri et al., 2013; Martinaityte & Sacramento, 2013; Sousa & Coelho, 2011; Wang & Miao, 2015; Wang & Netemeyer, 2004).

In spite of the expected positive outcomes of improvisation for organizations, empirical evidence suggests inconclusive and conflicting findings at the dimensional level (e.g., Ford & Sullivan, 2004; Gong et al., 2013; Martinaityte & Sacramento, 2013). The ambiguity in the extant literature highlights that while improvisation may contribute to firm performance, this may not always be the case. As explained by Vera and Crossan (2005), improvisation in itself is neither good nor bad; its effectiveness in terms of contributing to firm performance will depend on decision-makers' improvisational skills. Therefore, there is a strong argument to further investigate the form of relationship between improvisation and performance and the boundary conditions of this relationship. Figure 1 displays this study's conceptual framework.

## Improvisation and sales performance

Sparks (1994) viewed sales improvisation as the degree of latitude and autonomy afforded to salespeople and concluded that low levels of improvisation inhibit sales success. Since then, improvisation in the sales function has enjoyed a more direct conceptual understanding (Banin et al., 2016) mirroring evolving work on strategic improvisation (e.g., Ciuchta et al., 2021; O'Toole et al., 2020; Parhizgar et al., 2017). That said, results remain few and inconclusive. Following the approach used by previous research, we address this issue by positing that improvisation may have nonlinear (i.e., curvilinear) relationship with sales performance. That is, the strength and sign of the relationships between sales performance and the different dimensions of improvisation (i.e., creativity, spontaneity, and action-orientation) may not be constant for all levels of those dimensions. More specifically, we argue that those relationships may have an inverted U-shape.

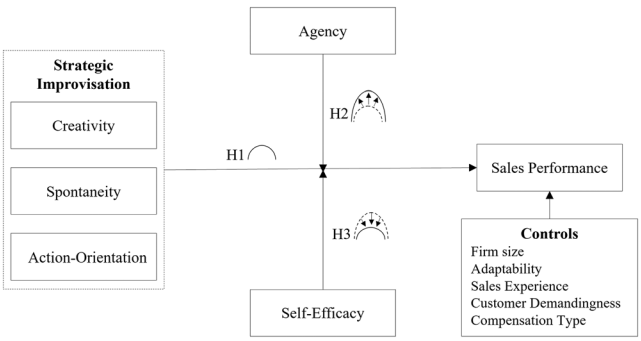


**FIGURE 1** Conceptual framework

We argue that improvisation enhances timely responsiveness to specific situations (Nemkova et al., 2015). Because real responsiveness lies not merely in generating solutions to customer problems, but in doing so timeously (Homburg et al., 2007; O'Toole et al., 2020; Tom & Lucey, 1997), the ability to apply moderate levels of improvisation in decision-making should improve sales performance. However, high levels of improvisation may have detrimental effects on sales performance. Being a descriptive choice process by nature means that improvisation exudes bounded rationality. Coupled with this fact, high levels of improvisation will likely mean that managers rely excessively on fast and frugal decision-making processes (e.g., heuristics). As such, given that bounded rationality implies that sales account managers lack situational clarity, especially in economies experiencing significant transitions as in Ghana, excessive reliance on fast and frugal decision-making processes (e.g., heuristics) means that managers may fall too short in terms of expending the needed effort to engage in situations enough to boost their clarity. As such, a high degree of improvisation in emergent markets may generate ineffective choices, which is detrimental for sales performance.

Moreover, because improvisation itself is disruptive of established routines with which customers are familiar and comfortable, it is also surrounded by uncertainty (Ferguson, 2009). According to Mueller et al. (2011), such a situation can be unsettling for customers and may produce undesired outcomes when customers see the company's offerings being high risk (Nemkova et al., 2015). Nevertheless, the absence of improvisation, or improvisation at low levels, may inhibit the development of agility within firm decision-making, the latter being a necessity for firms operating in high resource-constrained and precarious environments (Souchon et al., 2016), such as those found in Ghana. Collectively, the arguments put forward in the above discussion (as well as extant empirical evidence) suggest that the impact of improvisation on sales performance is low for low levels of improvisation, it then increases at moderate levels of improvisation and then goes down again for high levels of improvisation, indicating the existence of a nonlinear (i.e., curvilinear) relationship between improvisation and sales performance.

In line with this study's objective of exploring the microfoundation of the relationship between improvisation and sales performance, therefore, we argue that curvilinear relationship are also expected at the dimensional level. For instance, several researchers have tested the creativity–performance relationship and confirmed that it is beneficial to sales organizations (Agnihotri et al., 2013; Lassk & Shepherd, 2013; Proctor, 1991; Strutton et al., 2009), while others point to conflicting and inconclusive findings regarding creativity's impact (e.g., Gong et al., 2013; Martinaityte & Sacramento, 2013). Similarly, spontaneity has been observed to lead to positive firm outcomes through greater responsiveness (Nemkova et al., 2015). Yet spontaneity could lead to "chaos" (Eisenhardt & Brown, 1998), which may "result in actions that emerge with little consideration of their place within the firm's overarching strategy" (Souchon et al., 2016, p. 676), thereby undermining firm success. Furthermore, similar assertions can also be made regarding action-orientation. For instance, at low levels of action-orientation, the sales activity will not function effectively given a lack of responsiveness to the dynamism of customer needs. On the other hand, at high levels of action-orientation, the decision-maker will pursue action over analysis to stay focused on the customer problem (Nemkova et al., 2015). This may lead to an escalation of commitment and unequivocal belief in what the "solution" *can* be, rather than in what it *should* be. Therefore, emphasizing creativity, spontaneity, and action-orientation at their respective median levels (as opposed to low and high levels), is expected to boost firm-level sales performance. Thus, we argue that

> **H1.** The dimensions of improvisation have inverted U-shaped relationships with sales performance: such that the impacts of (a) creativity, (b) spontaneity, and (c) action-orientation on sales performance are low for low levels of those dimensions of improvisation, the impacts then increase at moderate levels and then go down again for high levels of those dimensions.

## Moderating roles of individual agency and self-efficacy

Given that improvisation is a descriptive choice behavior, we identify two psychological processes that may explain the boundary condition of the relationship between the dimensions of the improvisation and sales performance. Prior research suggests that the environment and individual characteristics shape individual actions while the latter also, in turn, affects the environment and the individual (Bandura, 1989). Thus, conditions of the selling situation may place explain the extent to which improvisational behavior is enacted by sales account managers and the consequences of the behavior. Such conditions interact with person-based characteristics in determining the actual enacted behaviors. In turn, the result of the chosen behavior affects firm-level sales outcomes and future client interactions, as well as the future success and survival of the firm (Hultman et al., 2019).

Bandura (1982) highlights two psychological processes as key in this bidirectional interaction between environment, individual, and behavior: individual agency and self-efficacy. Agency drives intentional behaviors through goal setting and behavior persistence until they are achieved (Bandura, 1989; Ling & Dale, 2013).

Self-efficacy, on the other hand, refers to judgments of one's capability to effectively respond to given situations. It has significant implications for whether a given choice is made and acted upon (Maddux, 2016). Both self-efficacy and individual agency are likely to alter the hypothesized quadratic relationships between creativity, spontaneity and action-orientation, and sales performance.

## Individual agency

Individual agency is defined as a drive to shape one's life outcomes (Bandura, 2001). It depicts individuals as not mere passive experiencers but also as driven to generate actions that contribute to their desired life outcomes (Bandura, 2001; Ling & Dale, 2013). Agency manifests as intentionality, enabling anticipatory behavioral control and a commitment to making things happen. It enables persistence such that high-agency individuals stick to the predefined behaviors they believe would lead to personal goal achievement. Agency also manifests as self-reflectiveness, an ongoing metacognitive evaluation of one's actions towards intended outcomes. This ensures that individuals constantly examine the extent of fit between their choices and their desired outcomes (Bandura, 2001, 2006).

While ordinarily, high-agency should make sales managers' behaviors more purposeful, in the specific context of achieving situational responsiveness, it appears to be counterproductive. Inherent in individual agency is the tendency to ignore situational nuances (such as the complexity of operating in precarious and challenging environments as such the emergent in Ghana), a condition that renders high-agency people to sometimes appear ruthless and self-centered (Bagozzi et al., 2010). While engaging in creative, spontaneous, and action-oriented behaviors, high-agency managers may be too preoccupied with their choice-predefined outcome fit resulting in a neglect of situational requirements and customer needs (Bagozzi et al., 2010). Agency might reduce the task focus which is instrumental in boosting performance by directing attention (Brown et al., 2005), to the extent that this creates "off-task thoughts" (Martin & Tesser, 1996, p. 12). In addition, where situations demand deviation from predefined structures, this agentic self-reflective tendency may generate negative affective consequences that interfere with successful selling.

Hence, a strong sense of agency is expected to further weaken the hypothesized diminishing effects of high-improvisation. Because creativity, spontaneity, and action-orientation suffer as a function of bounded rationality and cognitive limitations, the tendency for high-agency managers to overlook situational demands heightens the threat to the benefits of improvisation for the firm. In other words, high-agency managers may be too concerned with fitting their responses to personal goals instead of attending to customers' needs. In such situations, high-agency might dispose sales account managers to a selling orientation that aligns to their personal goals rather than a customer orientation, at the expense of firm performance (e.g., Boles et al., 2001). Thus,

> **H2.** The inverted U-shaped relationships between (a) creativity, (b) spontaneity, and (c) action-orientation, and sales performance is steepened (more pronounced) as individual agency increases.

## Self-efficacy

Bandura (1982) defines self-efficacy as judgments about people's own capability to effectively respond to situations (see also Akhtar, 2008). Far from actual skills held for effective response, efficacy operates at the evaluative level to prescribe to individuals a sense of what they can and cannot handle. The strength of the resulting conviction defines whether they will even try to cope with given situations (Bandura, 1997, 1977). Consequently, where people perceive the demands of a situation to exceed their capabilities, they resort to avoidance behaviors. Whereas, in contrast, when judging themselves capable of competently handling a situation they behave decisively (Maddux, 2016).

Self-efficacy has been widely proposed as a strong driver of employee performance as demonstrated by meta-analytic evidence (e.g., Stajkovic & Luthans, 1998). Within sales research, similar evidence is proposed by Brown et al. (1998) and Wang and Netemeyer (2002). However, our interest in self-efficacy lies beyond its direct implications for sales performance. We posit that self-efficacy has an attenuating effect on the hypothesized quadratic (inverted U-shaped relationship) link between the improvisation dimensions of creativity, spontaneity, and action-orientation, and firm-level sales performance.

Specifically, whereas high levels of improvisation as captured across creativity, spontaneity, and action-orientation in decision-making may be detrimental (in that they are inherently disruptive and surrounded by uncertainty), a strong sense of efficacy will likely counter the diminishing effects of these improvisational behaviors. Efficacy enables individuals to "focus their attention and motivation on the tasks necessary for achieving targeted performance levels and persevere in the face of difficulties" (Brown et al., 2005, p. 974); thus, account managers deploying creative solutions, spontaneous decisions, and real-time focus on customer needs would invest the needed effort to attain situational clarity (Wang & Netemeyer, 2002). The prevalence of high-efficacy would also imply that sales managers exude confidence when applying improvisation in their decision-making. This should make them appear outwardly credible and reduce customer apprehensions when

presented with untested and unchartered courses of action (Krishnan et al., 2002). Therefore,

> **H3.** The inverted U-shaped relationship between (a) creativity, (b) spontaneity, and (c) action-orientation and sales performance is flattened (less pronounced) as self-efficacy increases.

# METHOD

## Research context and data collection

The study's hypotheses are tested using data from industrial senior sales managers and directors in Ghana. Ghana provides a suitable and important context to test the applicability of constructs previously examined in developed market settings, thereby, bringing turbulent emerging country insight to the strategic selling discourse. With more than three decades of experience operating an open market economy, GDP growth rates surpassing those of many developed economies, and being ranked as the easiest place to do business in West Africa (World Bank, 2019), Ghana presents an interesting opportunity to examine improvisation. Despite its growth trajectory, the Ghanaian economy is still characterized by major institutional adversities (e.g., weak law enforcement) that have the potential to further boost the need for sales managers to exhibit improvisational behaviors in their boundary spanning roles (Hultman et al., 2019). Additionally, Ghana is largely a small-business economy with almost 90% of all economic activity carried out by small- and medium-sized enterprises (SMEs) (Donbesuur et al., 2020). As such, the boundary spanning sales managers' and directors' improvisation decisions also effectively become their firms' strategic decisions (Child, 1972) as opposed to the case in more mature and consolidated markets where individual managers' decisions carry less weight for overall firm strategy.

Following extant industrial selling literature (e.g., Auh & Menguc, 2013; Baldauf & Cravens, 2002), we used structured questionnaire to collect data from sales account managers/directors working in industrial firms across a multitude of sectors. We identified 4125 industrial firms (with at least five employees) listed in the 2014 Ghana business directory and Ghana association of industries database (Acquaah, 2012). However, given the heavy concentration of Ghana's commercial activities in few cities (Grant, 2001), and to balance cost of survey administration and sample size required to achieve statistical power, we limited our sampling to four major commercial cities (i.e., Accra, Tema, Takoradi, and Kumasi), thus reducing the sampling frame to 1472 firms. The total sampling frame could not be approached due to research budget constraints so a random sample of 400 firms was drawn from the original 1472 to receive invitation letters. The letters were addressed to the divisional heads requesting them to introduce the study to their respective industrial (or business-to-business) account managers/directors. A trained researcher subsequently administered structured questionnaires in person. A total of 224 completed surveys were received, yielding a 56% response rate. Post hoc data screening led to the exclusion of six responses, leaving an effective sample of 218, with an average of 3.84 years of industrial selling experience (SD = 2.65) at a senior capacity at their current firm.

The sample firms mirror the underlying population with regards to industry representation with wholesale and retail being the largest group (20.2% of the sample) followed by financial and insurance (18.8%), information and communication (18.3%), manufacturing (17.0%). A majority of the informants (59.6%) were mainly involved with selling services with the remainder selling tangible products (40.4). Most of the sampled firms were domestically oriented (63.8%) rather than internationally oriented (36.2%), and there were more male (79%) than female (21%) key informants.

We controlled for nonresponse bias through Armstrong and Overton's (1977) extrapolation method. Specifically, *t* tests comparing study's key constructs between those who agreed to participate after the first contact and those who needed reminders indicated no significant differences thus enhancing our confidence in unbiased data. A series of analysis of variance tests further failed to detect any significant differences in neither the independent nor the dependent the study variables based on industry, type of product sold, domestic versus international orientation, or gender ($p \geq 0.118$), thus ruling out industry, organization, and gender biases.

## Measures

Multi-item indicators were used to measure all constructs in the model (see Appendix A). The dependent variable, sales performance (Cronbach's $\alpha = 0.896$), was operationalized as the level of perceived sales achievement of sales account managers: increasing market share, selling to large volume customers, and expanding share of business with major accounts (Miao & Evans, 2014; Theodosiou & Katsikea, 2007). Creativity ($\alpha = 0.808$) measured the extent to which managers tried new approaches to sales problems, aimed at originality in generating sales solutions, and were inventive in overcoming barriers across sales situations (Wang & Netemeyer, 2004). Spontaneity ($\alpha = 0.808$) focused on being responsive in the moment, acting spontaneously, and responding on the spot impulsively (Vera & Crossan, 2005). Action-orientation ($\alpha = 0.713$) was adapted from O'Reilly et al. (1991) with four items tapping the managers' focus in dealing with upcoming situations and responding by taking action.

Individual agency ($\alpha = 0.889$) was captured as the drive to shape life outcomes by persisting in behavior towards the achievement of their plans, being conscious of how events relate to their identity, being conscious of what they can and cannot handle, and constantly evaluating their actions (Bandura, 2001). Self-efficacy ($\alpha = 0.882$) was also captured at individual level and measured with a three-item scale capturing respondents' confidence in their ability to perform their job well (Wang & Netemeyer, 2002). As previous research suggests possible confounding effects, we also included adaptive selling behavior ($\alpha = 0.874$), customer demandingness ($\alpha = 0.798$), sales account manager experience ($\alpha = 0.875$), compensation type (percentage of salary versus commissions), and firm size (natural logarithm of number of firm employees) as controls.

Despite being the most appropriate respondents for the survey, our data were obtained from single informants in each organization, which can raise the potential threat of common method variance (CMV) (Podsakoff et al., 2003). However, we argue that our conceptual model is complex enough to minimize any risk of CMV influencing our results (Siemsen et al., 2010). In fact, Siemsen et al. (2010, p. 456) demonstrate that "quadratic and interaction effects cannot be artefacts of CMV." Our study contains both quadratic, interaction, and quadratic-interaction variables, thus, making it extremely difficult for the estimated parameters to be inflated by CMV as it, by nature, causes temporal, proximal, and psychological separation of our measurements compared to if the model was based on direct and linear effects only. The complex model specifications also serve to create counterbalanced question ordering which helps neutralize priming effects (Podsakoff et al., 2003). Nonetheless, we followed two statistical procedures to formally rule out any major CMV influences on our results.

We followed Lindell and Whitney's (2001) recommendation for accounting for CMV in cross-sectional research designs to include a marker variable in the study: "There are too many demands on my time," which measures *role overload* as a single item (Banin et al., 2016). We initially found that this marker variable is not significantly correlated with any of the study's variables. A further extension of Lindell and Whitney's (2001) involved using the average correlation for the marker variable with the other model variables (0.052) to compute a CMV-adjusted correlation matrix using the following equation:

$$r_A = (r_u - r_M)/(1 - r_M),$$

where $r_A$ is the CMV-adjusted correlation, $r_u$ is the original correlation, and $r_M$ is the marker variable (Malhotra et al., 2006). Because the results showed from this exercise reveal only small and insignificant differences between the two correlation matrices ($\Delta r \leq 0.063$) and similar pattern of significant and nonsignificant correlations after adjustment, CMV is not likely to distort the study results.

As an additional safeguard, we followed Carson (2007) to run a combined congeneric measurement model by estimating a confirmatory factor analysis (CFA) model for all multi-item scales in the presence of an unmeasured common method factor, modeled to load on all observed items. This enabled us to control for some of the variances and covariances that may have been introduced as a result of obtaining responses from single informants. Carson's approach also made it possible to recalculate the factor loadings, composite reliability (CR), and average variance extracted (AVE) values in the presence of the common method factor and respective error terms. Findings show that all adjusted factor loadings, CR, and AVE values remained qualitatively unchanged. Thus, our confidence in the absence of severe CMV is further enhanced.

## ANALYSIS AND RESULTS

### Measure validation

Confirmatory factor analyses using the elliptical reweighted least squares (ERLS) procedure was used in EQS 6.2 to examine reliability and validity of the scales in the model. The ERLS procedure was specifically chosen due to its ability to produce unbiased parameter estimates for both multivariate normal and nonnormal data (Sharma et al., 1989). Model fit was assessed using traditional chi-square ($\chi^2$) difference tests together with several approximate fit heuristics. Results show that the measurement model fit the data well ($\chi^2$/degrees of freedom [*df*] = 570.298/507, $p = 0.026$; root mean squared error of approximation [RMSEA] = 0.024; normed fit index [NFI] = 0.998; nonnormed fit index [NNFI] = 0.999; comparative fit index [CFI] = 0.999; standardized root mean square residual [SRMR] = 0.061). As proof of convergent validity, all item loadings are significant at 1% level, with loadings ranging from 0.63 to 0.94. In addition, CR values for each construct exceed the minimum cut-off point of 0.60 (see Appendix A). We assessed discriminant validity using interconstruct correlations, AVE in each construct, as well as the highest shared variance (HSV) between construct pairs. All the interconstruct correlations fall below the AVE square root in evidence of adequate discriminant validity. Table 1 shows the measurement descriptive statistics and correlations.

### Hypothesis testing

To ensure robust and stable results, the approach for testing the hypotheses rely on a dual methodology consisting of both structural equation modeling (SEM) and on a

**TABLE 1** Interconstruct correlations and descriptive statistics

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Firm size | - | | | | | | | | | | |
| 2. Creativity | 0.409 | **0.719** | | | | | | | | | |
| 3. Spontaneity | 0.157 | 0.323 | **0.823** | | | | | | | | |
| 4. Action-orientation | 0.374 | 0.478 | 0.581 | **0.709** | | | | | | | |
| 5. Adaptability | 0.247 | 0.365 | 0.106 | 0.316 | **0.849** | | | | | | |
| 6. Customer demandingness | 0.164 | 0.170 | 0.260 | 0.335 | 0.395 | **0.757** | | | | | |
| 7. Agency | 0.159 | 0.378 | −0.110 | 0.266 | 0.479 | 0.325 | **0.820** | | | | |
| 8. Self-Efficacy | 0.171 | 0.278 | −0.106 | 0.181 | 0.515 | 0.236 | 0.619 | **0.817** | | | |
| 9. Experience | −0.067 | 0.036 | −0.206 | −0.040 | 0.071 | 0.108 | 0.208 | 0.205 | **0.855** | | |
| 10. Compensation type | −0.051 | −0.039 | 0.000 | −0.014 | −0.059 | 0.019 | −0.140 | −0.008 | 0.161 | - | |
| 11. Performance | 0.061 | 0.055 | 0.244 | 0.218 | 0.212 | 0.171 | 0.065 | 0.203 | −0.035 | −0.008 | **0.829** |
| Mean | 1.605 | 5.168 | 4.776 | 5.213 | 5.562 | 6.155 | 5.543 | 5.678 | 4.540 | 3.406 | 5.118 |
| SD | 0.186 | 0.676 | 0.964 | 0.683 | 0.718 | 0.759 | 0.683 | 0.670 | 2.714 | 2.120 | 0.805 |

*Note*: Correlations larger than ±0.13 are significant at $p = 0.05$ (two tailed). The square root of AVE is reported on the diagonal in bold.

series of ordinary least squares (OLS) regressions with the expectation that analogous results would enhance the confidence in our findings. We controlled for multivariate outliers by calculating Mahalanobis distances without detecting any severe concerns (largest Mahalanobis distance was $48.282_{(25\ df)}$; $p > 0.001$). Thereafter, following established procedures for testing moderated relationships, a multiplicative approach to structural equation modeling was adopted (Ping, 1995). Actual estimation of the structural model was undertaken using the ERLS estimation method. We mean-centered the constructs that were used for multiplicative interactive analysis to minimize any multicollinearity problem prior to calculating the loading and error variances of the interaction terms. The results imply a reasonably close-fitting structural model ($\chi^2/df = 2138.196/1088$; RMSEA = 0.074; NFI = 0.994; NNFI = 0.995; CFI = 0.996; SRMR = 0.075).

Table 2 shows the standardized parameter estimates and the directional significance levels for the investigated paths. Table 2 also shows the OLS regression analyses that were carried out hierarchically in five steps: Model 1 included the four control variables. Model 2 added the direct effects of the three improvisation dimensions and two moderators. Model 3 introduced the squared terms of the improvisation dimensions to test the nonlinear effects while Model 4 saw the inclusion of all linear interaction terms for control purposes. Finally, Model 5 included the interactions with nonlinear terms to complete the model and test the remaining hypotheses.

We compared the models by computing $R^2$ difference tests which, apart from Model 4 (which was only added for control purposes), confirmed that the added effects enhanced explanatory power to the original model ($p < 0.05$). A post hoc power analysis based on the achieved effect size for regression Model 5 ($f^2 = 0.410$) reveal that the obtained sample of 218 is appropriate and suitable for the tested model (power = 0.999; $\alpha$ err prob = 0.05; $df = 192$; critical $F = 1.564$). A multicollinearity test further reveals that the average variance inflation factor (VIF) across all estimated models is 3.236 with the highest VIF being 9.492 (for creativity$^2$ × agency) followed by 8.614 (spontaneity$^2$ × efficacy) and 8.373 (action-orientation$^2$ × efficacy). Although these values are in the higher ranges, they do not appear to show a systematically problematic variable because they are spread across different measures and are still below the generally accepted threshold value of 10.00. Larger VIFs are also to be expected given the large number of quadratic and interactive effects estimated (O'Brien, 2007), and the multicollinearity analysis indeed showed considerably lower VIFs among the non-quadratic variables and interaction terms where the highest recorded VIF was only 3.619 (for agency in Model 5). An investigation of the residuals from Model 5 further reveal that the skewness and kurtosis measures are within the standard error range while the Kolmogorov–Smirnov (KS) test returned nonsignificant results (KS = 0.109, $p = 0.200$) in support of approximate data normality. Finally, as the estimates in the SEM and OLS models display highly similar patterns of significant and nonsignificant results (Table 2), we are able to interpret the findings with a heightened degree of confidence.

## Results

The study hypothesized a curvilinear (inverted U-shape) relationship between the dimensions of improvisation and sales performance. Contrary to expectations, the results from the first hypothesis show that only

**TABLE 2** Results

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | SEM | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Beta** | ***t*** | **Beta** | ***t*** | **Beta** | ***t*** | **Beta** | ***t*** | **Beta** | ***t*** | **Beta** | ***t*** |
| Firm Size | −0.004 | −0.056 | −0.017 | −0.227 | 0.023 | 0.313 | 0.019 | 0.301 | 0.019 | 0.260 | | |
| Adaptability | 0.175 | 2.354* | 0.121 | 1.450 | 0.090 | 1.095 | 0.102 | 1.217 | 0.096 | 1.132 | 0.008 | 0.110 |
| Customer demandingness | 0.108 | 1.483 | 0.037 | 0.483 | 0.022 | 0.299 | 0.008 | 0.108 | 0.025 | 0.325 | 0.124 | 1.378 |
| Experience | −0.061 | −0.889 | −0.021 | −0.296 | −0.027 | −0.398 | −0.032 | −0.464 | −0.031 | −0.455 | 0.061 | 0.826 |
| Compensation type | 0.010 | 0.144 | −0.015 | −0.228 | −0.021 | −0.320 | −0.004 | −0.065 | 0.011 | 0.168 | 0.022 | 0.319 |
| Creativity | | | −0.135 | −1.752† | −0.253 | −2.916** | −0.163 | −1.695† | −0.120 | −1.211 | −0.134 | −1.121 |
| Spontaneity | | | 0.228 | 2.532* | 0.411 | 3.895*** | 0.327 | 2.867** | 0.351 | 3.107** | 0.332 | 2.105* |
| Action-orientation | | | 0.087 | 0.936 | 0.009 | 0.096 | 0.022 | 0.226 | 0.071 | 0.732 | −0.077 | −0.384 |
| Agency | | | −0.099 | −1.042 | −0.080 | −0.858 | −0.078 | −0.840 | 0.050 | 0.446 | −0.023 | −0.181 |
| Self-Efficacy | | | 0.246 | 2.793** | 0.291 | 3.374** | 0.280 | 3.186** | 0.247 | 2.225* | 0.213 | 2.112* |
| Creativity$^2$ | | | | | −0.078 | −1.016 | −0.061 | −0.710 | 0.097 | 0.921 | 0.103 | 1.592 |
| Spontaneity$^2$ | | | | | 0.310 | 3.276** | 0.348 | 3.211** | 0.282 | 2.544* | 0.214 | 2.913** |
| Action-orientation$^2$ | | | | | −0.239 | −2.937** | −0.225 | −2.317* | −0.217 | −2.053* | −0.325 | −4.300*** |
| Creativity × Agency | | | | | | | −0.037 | −0.276 | −0.124 | −0.883 | −0.082 | −0.838 |
| Spontaneity × Agency | | | | | | | −0.001 | −0.007 | 0.039 | 0.236 | 0.046 | 0.624 |
| Action-orientation × Agency | | | | | | | −0.072 | −0.495 | −0.117 | −0.747 | −0.113 | −1.184 |
| Creativity × Efficacy | | | | | | | −0.218 | −1.602 | −0.147 | −0.911 | −0.027 | −0.313 |
| Spontaneity × Efficacy | | | | | | | 0.141 | 1.124 | 0.091 | 0.640 | 0.031 | 0.399 |
| Action-orientation × Efficacy | | | | | | | 0.132 | 0.928 | 0.131 | 0.908 | 0.206 | 1.629 |
| Creativity$^2$ × Agency | | | | | | | | | −0.316 | −1.711† | −0.221 | −3.083** |
| Spontaneity$^2$ × Agency | | | | | | | | | 0.444 | 2.045* | 0.183 | 2.824** |
| Action-orientation$^2$ × Agency | | | | | | | | | −0.434 | −2.516* | −0.314 | −4.266*** |
| Creativity$^2$ × Efficacy | | | | | | | | | 0.033 | 0.163 | 0.106 | 1.282 |
| Spontaneity$^2$ × Efficacy | | | | | | | | | −0.153 | −0.879 | −0.049 | −0.742 |
| Action-orientation$^2$ × Efficacy | | | | | | | | | 0.394 | 2.268* | 0.307 | 3.911*** |
| $F$ | 2.585* | | 3.432*** | | 4.114*** | | 3.306*** | | 3.158*** | | | |
| $\Delta F_{(df)}$ | $2.585_{(5)}$* | | $4.087_{(5)}$** | | $5.641_{(3)}$** | | $1.422_{(6)}$ | | $2.294_{(6)}$* | | | |
| $R^2$ (adjusted $R^2$) | 0.057 (0.035) | | 0.142 (0.101) | | 0.208 (0.157) | | 0.240 (0.168) | | 0.291 (0.199) | | 0.513 | |
| $\Delta R^2$ | 0.057 | | 0.085 | | 0.066 | | 0.032 | | 0.051 | | | |

*Notes*: Fit indices for SEM: $\chi^2_{(1121)} = 1908.002$; NFI = 0.995; NNFI = 0.996; CFI = 0.996; SRMR = 0.047; RMSEA (90% confidence interval) = 0.038 (0.031–0.045).
*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$. †$p < 0.10$.

action-orientation displays the expected inverted U-shaped relationship ($\beta_{\text{action-orientation}^2} = -325$; $p < 0.001$). The squared term for creativity is nonsignificant ($\beta_{\text{creativity}^2} = 0.103$; $p > 0.05$), and spontaneity shows an opposite relationship to what was expected by displaying a positive and significant coefficient ($\beta_{\text{spontaneity}^2} = 0.214$; $p < 0.01$). The plotted relationships confirm the statistical results by showing how sales performance is highest at moderate levels of action-orientation (Figure 2) and lowest at moderate levels of spontaneity respectively (Figure 3). Therefore, the results support only H1c while H1a and H1b are rejected.

We further argue in H2 that the inverted U-shaped relationship between improvisation and performance will become even more accentuated in cases when managerial agency is high. The data favors this assumption in the case of creativity ($\beta_{\text{creativity}^2 \times \text{agency}} = -0.221$; $p < 0.01$) and action-orientation ($\beta_{\text{action-orientation}^2 \times \text{agency}} = -0.314$; $p < 0.001$) in support of H2a and H2c. Surprisingly, H2b is not supported as evidenced by the inverse relationship for the squared spontaneity × agency term on performance ($\beta_{\text{spontaneity}^2 \times \text{agency}} = 0.183$; $p < 0.01$), indicating that the relationship is U-shaped rather than the other way around. As plotted in Figures 4 and 5, with rising levels of agency, the initially positive relationship between the squared terms of creativity and agency, respectively, and sales performance turns negative, while Figure 6 shows the inverse.

Finally, the argument in H3 that a high sense of efficacy positively alters the relationship between creativity and sales performance is only supported in the case of action-orientation (H3c) as evidenced by the significantly positive coefficient for squared action-orientation × efficacy ($\beta_{\text{action-orientation}^2 \times \text{efficacy}} = 0.307$; $p < 0.001$) and the surface plot in Figure 7 that shows how the decreasing

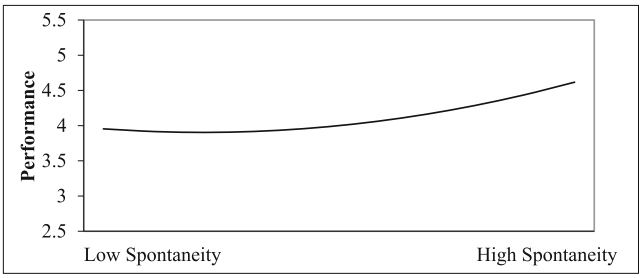


**FIGURE 2** Quadratic effects of sales account manager action-orientation

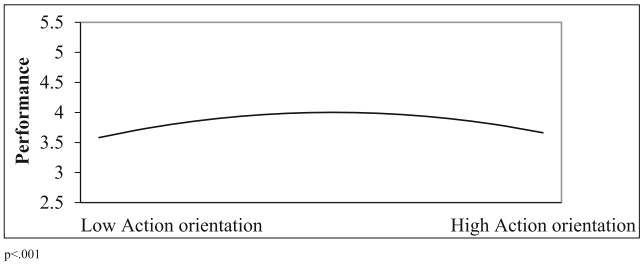


**FIGURE 3** Quadratic effects of sales account manager spontaneity

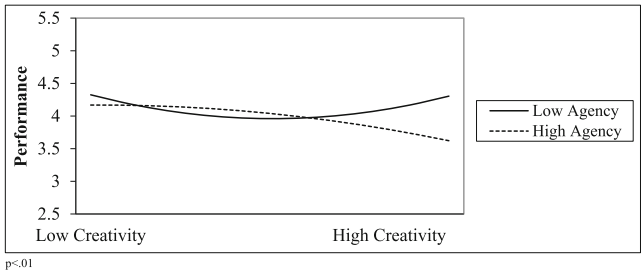


**FIGURE 4** The moderating effect of sales account manager agency on creativity

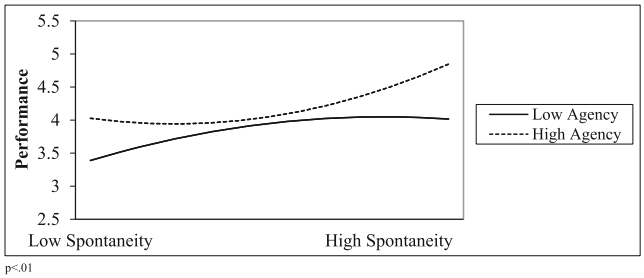


**FIGURE 5** The moderating effect of sales account manager agency on action orientation

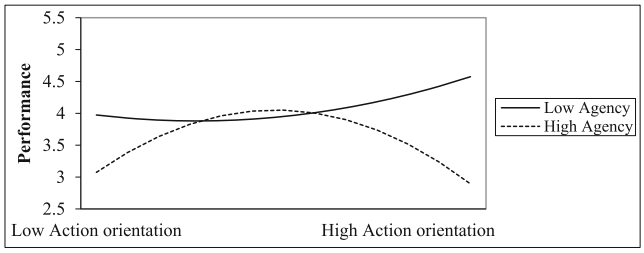


**FIGURE 6** The moderating effect of sales account manager agency on spontaneity

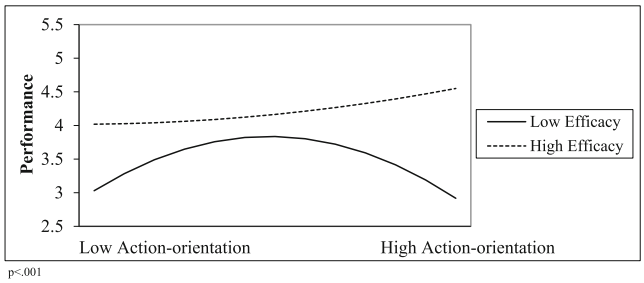


**FIGURE 7** The moderating effect of sales account manager self-efficacy on action orientation

effect of sales account manager creativity on sales performance is attenuated when self-efficacy increase in magnitude. Conversely, H3a and H3b are not supported as neither of the coefficients are significant ($\beta_{\text{creativity}^2\times\text{efficacy}} = 0.106$; $\beta_{\text{spontaneity}\times\text{efficacy}} = -0.049$; $p > 0.05$). Taken together, the hypotheses are therefore only fully supported for the action-orientation dimension of improvisation, while creativity yield mixed results by finding support in H2a but not H1a and H1c. Interestingly, spontaneity behaves contrary to expectations by displaying U-shapes rather than inverse U-shapes when testing H1b and H2b and nonsignificant results in the case of H3b.

## Additional analysis

To ensure the underlying appropriateness of treating improvisation as a construct comprising of three independent dimensions, we conducted an additional discriminant validity control on the basis of a chi-square difference test in which the correlations between all possible combinations of creativity, spontaneity, and action-orientation are first freely estimated and thereafter set to unity (Gerbing & Anderson, 1988). All chi-square difference tests between the three first-order constructs were significant, suggesting absence of collinearity and distinctiveness of individual study constructs (the smallest difference was between spontaneity and action-orientation; $\Delta\chi^2_{(1)} = 3.991$, $p < 0.05$). We further estimated an alternative second-order construct based on the three first-order dimensions and compared it with the original conceptualization comprising creativity, spontaneity, and action-orientation modeled as individual constructs. A comparison of fit indices between the two estimations reveal the superiority of the original conceptualization (second-order construct: $\chi^2/df = 93.618/51$; RMSEA = 0.105; NFI = 0.806; NNFI = 0.852; CFI = 0.859; SRMR = 0.109; first-order constructs: $\chi^2/df = 71.006/51$; RMSEA = 0.043; NFI = 0.937; NNFI = 0.976; CFI = 0.981; SRMR = 0.068).

To control the robustness of our model and further ascertain the result pattern obtained in the hypothesis testing, we employed an alternative analysis method that involved splitting the three independent variables into thirds based on percentile distribution, thus creating groups of "low," "medium," and "high" levels of creativity, spontaneity, and action-orientation, respectively.[1] The direct effects OLS regressions described in Table 2 (Model 2) were then repeated for each level of each independent variable. The results for the focal variables (i.e., creativity, spontaneity, and action-orientation) from this analysis are reported in the first panel of Table 3 and shows how the split group analysis confirm the quadratic regressions by returning analogous results. For instance, the effect of creativity on performance is nonsignificant at low, medium, and high levels, while action-orientation is positively related to performance at low levels and

**TABLE 3** Relationship between improvisation dimensions and sales performance at different levels

| Dimensions | | Low | | Medium | | High | |
|---|---|---|---|---|---|---|---|
| | | *β* (*t*) | Trend | *β* (*t*) | Trend | *β* (*t*) | Trend |
| A: Main effect relationships between low, medium, and high levels of improvisation dimensions and sales performance | | | | | | | |
| Creativity | | 0.024 (0.253) | → | −0.082 (−0.552) | → | −0.218 (−0.150) | → |
| Spontaneity | | 0.014 (0.101) | → | −0.029 (−0.120) | → | 0.193 (1.667†) | ↗ |
| Action-orientation | | 0.212 (1.878†) | ↗ | −0.035 (−0.217) | → | −0.246 (−1.704†) | ↘ |
| B: Relationships at high versus low levels of agency | | | | | | | |
| Creativity | Low | −0.035 (−0.244) | → | −0.197 (−0.943) | → | 0.375 (1.654†) | ↗ |
| | High | 0.070 (0.427) | → | −0.251 (−1.1450) | → | −0.236 (−1.385) | → |
| Spontaneity | Low | −0.080 (−0.369) | → | 0.052 (0.138) | → | −0.087 (−0.755) | → |
| | High | 0.062 (0.330) | → | −0.109 (−0.267) | → | 0.262 (1.896†) | ↗ |
| Action-orientation | Low | 0.236 (1.335) | → | 0.087 (0.384) | → | 0.042 (0.217) | → |
| | High | 0.315 (1.781†) | ↗ | −0.216 (−1.488) | → | −0.464 (−2.360*) | ↘ |
| C: Relationships at high versus low levels of efficacy | | | | | | | |
| Creativity | Low | 0.164 (1.363) | → | −0.166 (1.183) | → | −0.023 (−0.063) | → |
| | High | −0.028 (−0.177) | → | −0.035 (−0.101) | → | −0.263 (−1.531) | → |
| Spontaneity | Low | −0.059 (−0.271) | → | 0.158 (0.703) | → | 0.042 (0.360) | → |
| | High | 0.064 (0.328) | → | −0.030 (−0.084) | → | 0.163 (1.169) | → |
| Action-orientation | Low | 0.308 (1.881†) | ↗ | −0.106 (−0.677) | → | −0.549 (−2.407*) | ↘ |
| | High | 0.171 (1.022) | → | −0.207 (−1.155) | → | 0.053 (0.219) | → |

*$p < 0.05$. †$p < 0.10$.

negatively related at high levels (pointing towards a reverse U-shaped relationship). This corresponds well with both the quadratic regression and SEM coefficients and the plotted quadratic effects in Figures 2 and 3, respectively.

Following a similar procedure, we also created "low" and "high" groups of the two proposed moderators (agency and efficacy) using a median-split approach and then repeated the previously described series of subgroup analyses. Again, the pattern of results is in line with those previously obtained in the main analysis, providing further confidence in the robustness and stability of the study findings. This alternative analysis may also facilitate the interpretation of the results by, for instance, clearly indicating that the action-orientation aspect of strategic improvisation appears more detrimental for positive performance outcomes under conditions of high agency ($\beta = 0.464$, $p < 0.05$; Table 3, Panel B) and low efficacy ($\beta = 0.549$, $p < 0.05$; Table 3, Panel C), respectively, as evidenced by the negative and significant regression coefficients.

Although the general study results clearly evidence the importance of decomposing the strategic improvisation constructs into its dimensions to discern their individual effect, it may be of interest to investigate how the dimensions interact and determine what combination of dimensions (i.e., strategic improvisation profiles) are associated with the highest sales performance levels.[2] To this end, interaction terms for all possible combinations of dimensions were computed and thereafter regressed against the sales performance construct. The results reveal a significant model (adjusted $R^2 = 0.070$, $F = 3.317$, $p < 0.05$), and although all the possible two-way interactions were nonsignificant, the three-way interaction between creativity, spontaneity, and action-orientation produced a positive and significant coefficient ($\beta = 0.234$, $p < 0.05$). To visualize the three-way interaction, we plotted (see Figure 8) the relationship between creativity and sales performance during high and low levels of spontaneity and action-orientation.

Figure 8 illustrates that sales performance levels are the highest when the improvisation profile is characterized by low creativity in conjunction with high spontaneity and low action-orientation (Profile 2 in Figure 8) followed by low creativity together with low spontaneity and high action-orientation (Profile 3). The nonsignificant difference between these two profiles indicates that there is no one-size-fits-all improvisation style for maximum performance and that there appears to be an element of equifinality with regard to performance outcomes for different improvisation profiles. Figure 8 also shows that there is no significant difference between high and low creativity for the remaining two improvisation profiles (Profiles 1 and 4, respectively).

To capture the moderating effects of agency and self-efficacy, the overall sample was divided into high and low levels of the two moderator variables following a median-split approach, and the three-way regression models were repeated on each of the subsamples. The analysis produced significant results only at high levels of agency (adjusted $R^2 = 0.084$, $F = 2.492$, $p < 0.05$) and high levels of self-efficacy (adjusted $R^2 = 0.111$, $F = 2.993$, $p < 0.05$), respectively. Both the significant subgroup analyses also displayed a similar pattern of results as the full dataset with nonsignificant simple interactions but significant three-way coefficients ($\beta = 0.330$, $p < 0.05$ for the high-agency group and $\beta = 0.317$, $p < 0.1$ for the high self-efficacy group). Figure 9 shows the plot for the significant interaction in the high-agency condition, and it appears to enhance the effects for Profiles 2 and 3, respectively, at both high and low levels of creativity, whereas the significant plot for the high self-efficacy condition in Figure 10 seems to further enhance the positive performance of Profile 2 during low levels of creativity while further dampening the performance from Profile 3 during high levels of creativity. Taken together, these results further communicate complexity of the strategic improvisation construct and the perils of studying improvisation in an overly simplified manner without decomposing it to individual constituents.

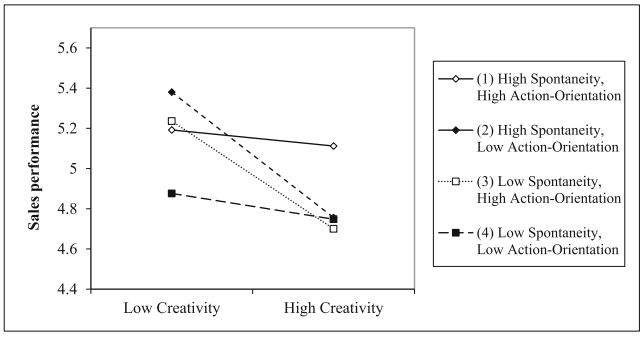


**FIGURE 8** Three-way interaction effect of strategic improvisation dimensions on sales performance

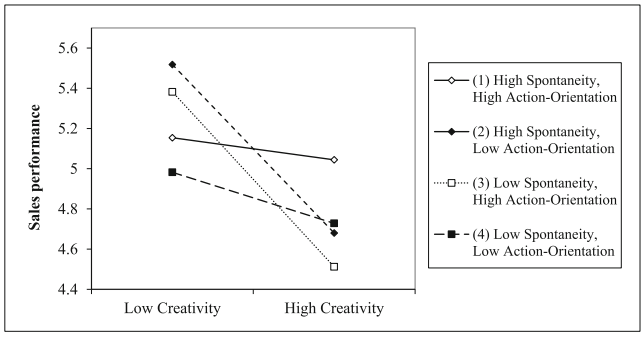


**FIGURE 9** Three-way interaction effect of strategic improvisation dimensions on sales performance at high levels of agency

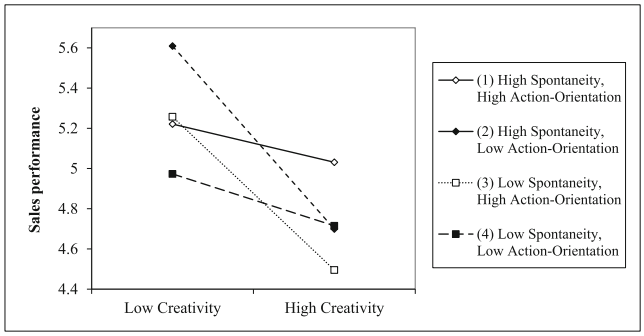


**FIGURE 10** Three-way interaction effect of strategic improvisation dimensions on sales performance at high levels of self-efficacy

# DISCUSSION

## Contributions to theory

Given the mixed empirical evidence of the benefits of improvisation and repeated assertions that improvisation may be fraught with challenges, this study set out to examine whether dimensions of improvisation display curvilinear relationships with firm-level perceived sales performance (thereafter referred to as sales performance). We specifically sought to examine the occurrence of creativity, spontaneity, and action-orientation and whether the prevalence of these behaviors have unintended consequences for firm sales performance.

Concerning the occurrence of improvisation at the dimensional level and the relationships therein with sales performance, dramatic differences are observed. The findings confirm that action-orientation on behalf of sales managers has an inverted U-shaped relationship with sales performance. Thus, low and high levels of action-orientation are negatively related to sales performance, while average levels are positively related to sales performance; consistent with the logic presented in hypothesis development. Contrary to the hypothesized negative quadratic effect, the findings point towards a regular U-shaped association between spontaneity and sales performance implying that both low and high degrees of spontaneity are more strongly related to performance as opposed to the hypothesized medium level. A possible explanation to this finding is that the inefficiencies and aligned costs that mid-levels of spontaneity might incur relative to low-spontaneity may decrease performance levels. Similarly, sales performance may go up in response to low-spontaneity because it involves incursion of risk minimization in approaches used to solving sales problems. In other words, it is possible that under low levels of spontaneity, sales account managers resort to established procedures when addressing customer problems. On the other hand, a high degree of spontaneity may produce increases in performance because the application of highly spontaneous solutions to customer problems enables the sales account manager to address the problems rapidly to the delight of the customer and as a result generate sales performance returns. Finally, there is no apparent direct relationship between creativity and sales performance, regardless of its intensity among sales managers.

Following decision theory logic and in viewing improvisation as descriptive and emergent choice behavior, we tested the moderating effects of individual agency and self-efficacy. First, the findings for agency suggest that the hypothesized relationship between the squared term of action-orientation and sales performance is strengthened under moderate levels of individual agency. However, the relationship between creativity and sales performance is contingent on the prevalence of individual agency, going from nonsignificant to significant, while the U-shaped relationship between the squared term of spontaneity and sales performance remains and is, in fact, strengthened by agency. Thus, for action-orientation and creativity, sales performance will benefit when sales account managers are confident in their ability to deliver to the demands of a given emergent sales situation (high-efficacy) and when they have a stronger sense of personal agency.

While the agentic psychological tendency to consider predefined behavioral scripts and personal goals can strengthen the relationships with sales performance for both action-orientation and creativity, at high levels and without recourse to contextual requirements, the impact on sales performance becomes negative. As suggested by Bagozzi et al. (2010), agency tendencies may predispose individuals to selfishness and ruthlessness, both of which may be harmful to their customer relationships. Yet individual agency does increase the positive spontaneity–sales performance relationship, given the U-shaped quadratic relationship uncovered.

Second, concerning self-efficacy, the decision-making perspective and cognition literature in general suggest that the ability to rely on context and intuitive frames in generating solutions should enhance sales performance (Gaglio & Katz, 2001). According to Bandura (1997, 1977), self-efficacy is both inhibitory and facilitating of choice and action: it drives action in any given situation and provides the necessary impetus to persist in the face of challenges. At the extreme, high-efficacy implies that people become imbued with confidence to persist in executing their intuition (Brown et al., 2005). To explain how efficacy might strengthen the relationship between action-orientation and sales performance, we draw on insights from Wang and Netemeyer (2002) and reason that because efficacious account managers would invest the needed effort to attain situational clarity and apply their action-oriented solutions with confidence and persistence, they are likely to appear credible in customer interactions, thus reducing any customer apprehensions with untested action-driven decisions (Krishnan et al., 2002). Yet at very high levels of efficacy, the

positive relationship between the squared terms for action-orientation and sales performance assume a negative relationship. Curiously, this significant effect is not observed for the other two improvisation dimensions.

### Implications for improvisation practice in emerging markets

The occurrence of improvisation and its ability to influence and shape strategic outcomes remains neglected within emerging market contexts, despite such settings offering opportunities to uncover a new understanding of the origins and outcomes of strategic improvisation under typically highly turbulent and fast-paced business conditions.

The study findings accomplish just this and point to an unusual optimal combination of improvisation dimensions for firm-level sales performance returns. Specifically, effective improvisation occurrence for sales performance gains takes the form of very low or very high action-orientation coupled with moderate spontaneity; irrespective of the degree of creativity which contradicts suggestions that creativity is a universally beneficial behavior for sales organizations (e.g., Agnihotri et al., 2013). This nuanced depiction of improvisation sheds a whole new light on the capacity for firms to operate and adapt to fast changing and unpredictable environments to ensure economic survival. By disaggregating the relevance of improvisation at the dimensional level, the findings demonstrate the form improvisation should take if it is to become an impactful tool in emerging markets. Added complexity is uncovered however when considering the role of individual agency. Based on the findings, high-level account managers may need to tone down their "in-behavior" self-evaluation and self-critique when engaging in real-time action-orientation and creative behaviors to satisfy customers. That said, should sales executive display a greater propensity for spontaneity, individual agency increases the positive spontaneity–sales performance relationship given the U-shaped quadratic relationship uncovered. Thus, prescriptions for SMEs in emerging markets such as Ghana need to pay close attention to the multidimensionality of improvisation and build organizational profiles to determine what the optimal combinations for superior firm performance.

In conclusion, unlike previous research that portrays improvisation as a positive behavioral manifestation, and in extending prior research that suggests that improvisation might not always be a good or a bad behavior, this study provides empirical evidence to demonstrate that the dimensions of improvisation contribute uniquely to sales performance and their effects are inhibited or facilitated at varying levels of sales managers' agency and self-efficacy.

## LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study suffers limitations as a result of its cross-sectional design and as such, it is impossible to make causal inferences from the findings. Given this limitation, we suggest that future research should extend this study's findings by tracking the relationships explored over time to establish the extent of their stability. Second, the use of perceptual sales performance measures, which although did not pose a method bias concern in the study, is a challenge. In particular, it may be argued that a more objective means of assessing sales performance using actual sales data may help explain the actual sales value the organizations derived from their sales account managers' improvisation. While acknowledging this limitation, it is important to note that such figures were not readily available from the organizations from which the sample was drawn. We therefore suggest that, where possible, future research should make efforts to obtain such objective sales figures on individual sales account managers to further validate the findings attained. Third, although we established that Ghana-based industrial sales managers constitute a suitable respondent base for studying strategic improvisation in sales, we recognize the limitation of a single country emerging economy context. It would therefore be interesting to expand the scope of the current investigation across different markets with different levels of economic development and institutional environments. A cross-country study of this study's investigated relationships would therefore be a natural future extension. Fourth, a future study would benefit from examining the moderating effect of initiative (Eissa, 2020) alongside individual agency. Initiative is a voluntary behavior that exceeds prescribed duties. As such, it may strengthen the effects of improvisation on performance in salespeople. Fifth, while considered as moderating variables in the improvisation–performance relationship, and therefore tested for linear effects (following hierarchical procedures for moderation testing), it may be the case that individual agency and self-efficacy themselves affect performance quadratically. Specifically, both the drive for achieving desired outcomes (agency) and confidence in one's own ability (self-efficacy) are likely to lead to objective fulfillment only up to a point of diminishing returns. Excessive agency and self-efficacy may be manifested in salesperson preoccupation with personal success at the expense of focus on the task at hand (e.g., listening to customer needs, being responsive to customer requests). A future study may therefore consider the quadratic effects of these variables on performance. Finally, one cannot rule out alternative explanations for the findings attained, as there may be other variables not included in this research which contribute to the findings attained. As such, future research should build on the current study and to seek to explore alternative explanations for the findings of this

research, for instance, via collecting data on additional performance predictors.

## ORCID

*Magnus Hultman* https://orcid.org/0000-0003-1771-8898
*Paul Hughes* https://orcid.org/0000-0002-7164-0406

## ENDNOTES

[1] We thank an anonymous reviewer for this helpful suggestion.

[2] We thank an anonymous reviewer for this helpful suggestion.

## REFERENCES

Acquaah, M. (2012) Social networking relationships, firm-specific managerial experience and firm performance in a transition economy: A comparative analysis of family owned and nonfamily firms. *Strategic Management Journal*, 33(10), 1215–1228. https://doi.org/10.1002/smj.1973

Agnihotri, R., Rapp, A.A., Andzulis, J.M. & Gabler, C.B. (2013) Examining the drivers and performance implications of boundary spanner creativity. *Journal of Service Research*, 17, 164–181. https://doi.org/10.1177/1094670513506494

Akhtar, M. (2008) *What is self-efficacy? Banduras 4 sources of efficacy beliefs*. UK: Positive Psychology.

Anderson, R.E. & Huang, W.Y.R. (2006) Empowering salespeople: Personal, managerial, and organizational perspectives. *Psychology and Marketing*, 23, 139–159. https://doi.org/10.1002/mar.20104

Armstrong, J.S. & Overton, T.S. (1977) Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14, 396–402. https://doi.org/10.1177/002224377701400320

Auh, S. & Menguc, B. (2013) Knowledge sharing behaviors of industrial salespeople: An integration of economic, social psychological, and sociological perspectives. *European Journal of Marketing*, 47(8), 1333–1355. https://doi.org/10.1108/03090561311324354

Bagozzi, R.P., Belschak, F. & Verbeke, W. (2010) The role of emotional wisdom in sales account managers' relationships with colleagues and customers. *Psychology and Marketing*, 27(11), 1001–1031. https://doi.org/10.1002/mar.20370

Baldauf, A. & Cravens, D.W. (2002) The effect of moderators on the sales account manager behavior performance and sales account manager outcome performance and sales organization effectiveness relationships. *European Journal of Marketing*, 36(11/12), 1367–1388. https://doi.org/10.1108/03090560210445227

Bandura, A. (1977) Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84, 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1982) Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. https://doi.org/10.1037/0003-066X.37.2.122

Bandura, A. (1989) Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175–1184. https://doi.org/10.1037/0003-066X.44.9.1175

Bandura, A. (1997) *Self-efficacy: The exercise of control*. New York: W. H. Freeman, pp. 1–606.

Bandura, A. (2001) Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

Bandura, A. (2006) Towards a psychology of human agency. *Perspectives on Psychological Science*, 1, 164–180. https://doi.org/10.1111/j.1745-6916.2006.00011.x

Banin, A.Y., Boso, N., Hultman, M., Souchon, A.L., Hughes, P. & Nemkova, E. (2016) Salesperson improvisation: Antecedents, performance outcomes, and boundary conditions. *Industrial Marketing Management*, 58, 12–130.

Baron, R.A. & Ensley, M.D. (2006) Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331–1344. https://doi.org/10.1287/mnsc.1060.0538

Bell, D.E., Raiffa, H. & Tversky, A. (1988) *Decision-making: Descriptive, normative and prescriptive interactions*. Cambridge: Cambridge University Press.

Bergh, D.D. & Lim, E.N.K. (2008) Learning how to restructure: absorptive capacity and improvisational views of restructuring actions and performance. *Strategic Management Journal*, 29(6), 593–616. https://doi.org/10.1002/smj.676

Boles, J.S., Babin, B.J., Brashear, T.G. & Brooks, C. (2001) An examination of the relationships between retail work environments, sales account manager selling orientation-customer orientation and job performance. *Journal of Marketing Theory and Practice*, 9(3), 1–13. https://doi.org/10.1080/10696679.2001.11501893

Bonney, F.L. & Williams, B.C. (2009) From products to solutions: the role of sales account manager opportunity recognition. *European Journal of Marketing*, 43(7/8), 1032–1052. https://doi.org/10.1108/03090560910961506

Brown, S.P., Cron, W.L. & Slocum, J.W., Jr. (1998) Effects of trait competitiveness and perceived intraorganizational competition on sales account manager goal setting and performance. *The Journal of Marketing*, 62(4), 88–98. https://doi.org/10.1177/002224299806200407

Brown, S.P., Eli, J. & Thomas, W.L. (2005) The attenuating effect of role overload on relationships linking self-efficacy and goal level to work performance. *Journal of Applied Psychology*, 90(5), 972–979. https://doi.org/10.1037/0021-9010.90.5.972

Cabantous, L. & Gond, J.P. (2011) Rational decision making as performative praxis: Explaining rationality's Éternel Retour. *Organization Science*, 22(3), 573–586. https://doi.org/10.1287/orsc.1100.0534

Cao, G., Duan, Y. & Cadden, T. (2019) The link between information processing capability and competitive advantage mediated through decision-making effectiveness. *International Journal of Information Management*, 44, 121–131. https://doi.org/10.1016/j.ijinfomgt.2018.10.003

Carson, S.J. (2007) When to give up control of outsourced new product development. *Journal of Marketing*, 71(1), 49–66. https://doi.org/10.1509/jmkg.71.1.49

Child, J. (1972) Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1–22. https://doi.org/10.1177/003803857200600101

Ciuchta, M.P., O'Toole, J. & Miner, A.S. (2021) The organizational improvisation landscape: Taking stock and looking forward. *Journal of Management*, 47(1), 288–316. https://doi.org/10.1177/0149206320966987

Corbett, J., Webster, J. & Jenkin, T.A. (2018) Unmasking corporate sustainability at the project level: Exploring the influence of institutional logics and individual agency. *Journal of Business Ethics*, 147(2), 261–286. https://doi.org/10.1007/s10551-015-2945-1

Crossan, M., Cunha, M.P.E., Vera, D. & Cunha, J. (2005) Time and organizational improvisation. *Academy of Management Review*, 30, 129–145. https://doi.org/10.5465/amr.2005.15281441

Cunha, M.P., Cunha, J.V. & Kamoche, K.N. (2002) Organizational improvisation: What, when, how and why. In: Cunha, M.P., Cunha, J.V. & Kamoche, K.N. (Eds.) *Organizational Improvisation*. London: Routledge, pp. 96–137.

Cunha, M.P., Miner, A.S. & Antonacopoulou, E. (2016) Improvisation processes in organizations. In: Langley, A. & Tsoukas, H. (Eds.) *The Sage Handbook of Process Organization Studies*. London: Sage.

Donbesuur, F., Boso, N. & Hultman, M. (2020) The effect of entrepreneurial orientation on new venture performance: Contingency roles of entrepreneurial actions. *Journal of Business Research*, 118, 150–161. https://doi.org/10.1016/j.jbusres.2020.06.042

Eisenhardt, K. & Brown, S.L. (1998) Competing on the edge: Strategy as structured chaos. *Long Range Planning*, 31, 786–789. https://doi.org/10.1016/S0024-6301(98)00092-2

Eissa, G. (2020) Individual initiative and burnout as antecedents of employee expediency and the moderating role of conscientiousness. *Journal of Business Research*, 110, 202–212. https://doi.org/10.1016/j.jbusres.2019.12.047

Eling, K., Griffin, A. & Langerak, F. (2014) Using intuition in fuzzy front-end decision-making: A conceptual framework. *Journal of Product Innovation Management*, 31(5), 956–972. https://doi.org/10.1111/jpim.12136

Etzioni, A. (2014) Humble decision-making theory. *Public Management Review*, 16(5), 611–619. https://doi.org/10.1080/14719037.2013.875392

Evans, K.R., McFarland, R.G., Dietz, B. & Jaramillo, F. (2012) Advancing sales performance research: A focus on five under researched topic areas. *Journal of Personal Selling and Sales Management*, 32, 89–105. https://doi.org/10.2753/PSS0885-3134320108

Ferguson, B. (2009) Creativity and integrity: Marketing the "in development" screenplay. *Psychology and Marketing*, 26(5), 421–444. https://doi.org/10.1002/mar.20281

Ford, C. & Sullivan, D.M. (2004) A time for everything: How the timing of novel contributions influences project team outcomes. *Journal of Organizational Behavior*, 25, 279–292. https://doi.org/10.1002/job.241

Gaglio, C.M. & Katz, J.A. (2001) The psychological basis of opportunity identification: Entrepreneurial alertness. *Small Business Economics*, 16, 95–111. https://doi.org/10.1023/A:1011132102464

Gerbing, D.W. & Anderson, J.C. (1988) An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25, 186–192. https://doi.org/10.1177/002224378802500207

Goldstein, D.G. & Gigerenzer, G. (2002) Models of ecological rationality: the recognition heuristic. *Psychological Review*, 109(1), 75–90. https://doi.org/10.1037/0033-295X.109.1.75

Gong, Y., Zhou, J. & Chang, S. (2013) Core knowledge employee creativity and firm performance: The moderating role of riskiness orientation, firm size, and realized absorptive capacity. *Personnel Psychology*, 66, 443–482. https://doi.org/10.1111/peps.12024

Grant, R. (2001) Liberalization policies and foreign companies in Accra, Ghana. *Environment and Planning*, 33(6), 997–1014. https://doi.org/10.1068/a33144

Haley, U.C. & Stumpf, S.A. (1989) Cognitive trails in strategic decision-making: linking theories of personalities and cognitions. *Journal of Management Studies*, 26(5), 477–497. https://doi.org/10.1111/j.1467-6486.1989.tb00740.x

Hmieleski, K.M., Corbett, A.C. & Baron, R.A. (2013) Entrepreneurs improvisational Behavior and firm performance: A study of dispositional and environmental moderators. *Strategic Entrepreneurship Journal*, 7, 138–150. https://doi.org/10.1002/sej.1143

Hodgkinson, G.P. & Sadler-Smith, E. (2018) The dynamics of intuition and analysis in managerial and organizational decision making. *Academy of Management Perspectives*, 32, 473–492. https://doi.org/10.5465/amp.2016.0140

Hodgkinson, G.P., Sadler-Smith, E., Burke, L.A., Claxton, G. & Sparrow, P.R. (2009) Intuition in organizations: Implications for strategic management. *Long Range Planning*, 42(3), 277–297. https://doi.org/10.1016/j.lrp.2009.05.003

Homburg, C., Grozdanovic, M. & Klarmann, M. (2007) Responsiveness to customers and competitors: the role of affective and cognitive organizational systems. *Journal of Marketing*, 71, 18–38. https://doi.org/10.1509/jmkg.71.3.018

Hughes, P., Morgan, R.E., Hodgkinson, I.R., Kouropalatis, Y. & Lindgreen, A. (2020) A diagnostic tool to determine a strategic improvisation Readiness Index Score (IRIS) to survive, adapt, and thrive in a crisis. *Industrial Marketing Management*, 88, 485–499. https://doi.org/10.1016/j.indmarman.2020.05.020

Hughes, P., Souchon, A.L., Nemkova, E., Hodgkinson, I.R., Oliveira, J.S., Boso, N., *et al.* (2018) Quadratic effects of dynamic decision-making capability on innovation orientation and performance: Evidence from Chinese exporters. *Industrial Marketing Management*, 59, 120–130. https://doi.org/10.1016/j.indmarman.2018.11.005

Hultman, M., Yeboah-Banin, A.A. & Boso, N. (2019) Linking improvisational behavior to customer satisfaction: the roles of relationship cordiality and customer exercised coercive power. *The Journal of Business and Industrial Marketing*, 34(6), 1183–1193. https://doi.org/10.1108/JBIM-11-2017-0298

Kamoche, K. & Cunha, M.P.E. (2001) Minimal structures: From jazz improvisation to product innovation. *Organization Studies*, 22(5), 733–764. https://doi.org/10.1177/0170840601225001

Kamoche, K., Cunha, M.P.E. & Cunha, J.V.D. (2003) Towards a theory of organizational improvisation: Looking beyond the jazz metaphor. *Journal of Management Studies*, 40(8), 2023–2051. https://doi.org/10.1046/j.1467-6486.2003.00410.x

Kim, M., Sudhir, K., Uetake, K. & Canales, R. (2019) When salespeople manage customer relationships: Multidimensional incentives and private information. *Journal of Marketing Research*, 56, 749–766. https://doi.org/10.1177/0022243719847661

Krishnan, B.C., Netemeyer, R.G. & Boles, J.S. (2002) Self-efficacy, competitiveness, and effort as antecedents of sales account manager performance. *Journal of Personal Selling and Sales Management*, 22, 285–295.

Lassk, F.G. & Shepherd, C.D. (2013) Exploring the relationship between emotional intelligence and sales account manager creativity. *Journal of Personal Selling and Sales Management*, 33(1), 25–37. https://doi.org/10.2753/PSS0885-3134330103

Lawrence, T.B. & Suddaby, R. (2006) Institutions and institutional work. In: Clegg, S.R., Hardy, C., Lawrence, T.B. & Nord, W.R. (Eds.) *Handbook of organization studies*, 2nd edition. London: Sage.

Leybourne, S. & Sadler-Smith, E. (2006) The role of intuition and improvisation in project management. *International Journal of Project Management*, 24(6), 483–492. https://doi.org/10.1016/j.ijproman.2006.03.007

Lindell, M.K. & Whitney, D.J. (2001) Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86, 114–121. https://doi.org/10.1037/0021-9010.86.1.114

Ling, C. & Dale, A. (2013) Agency and social capital: characteristics and dynamics. *Community Development Journal*, 49(1), 4–20. https://doi.org/10.1093/cdj/bss069

Locander, D.A., Mulki, J.P. & Weinberg, F.J. (2014) How do salespeople make decisions? The role of emotions and deliberation on adaptive selling, and the moderating role of intuition. *Psychology and Marketing*, 31(6), 387–403. https://doi.org/10.1002/mar.20702

Maddux, J.E. (2016) In: Trusz, S. & Babel, P. (Eds.) *Self efficacy. Interpersonal and intrapersonal expectancies*. London: Routledge.

Malhotra, N.K., Kim, S.S. & Patil, A. (2006) Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865–1883. https://doi.org/10.1287/mnsc.1060.0597

Martin, L. & Tesser, A. (1996) Some ruminative thoughts. In: Wyer, R.S., Jr. (Ed.) *Ruminative thoughts: Advances in social cognition*. Hillsdale: Erlbaum, pp. 1–48.

Martinaityte, I. & Sacramento, C.A. (2013) When creativity enhances sales effectiveness: The moderating role of leader–member exchange. *Journal of Organizational Behavior*, 34, 974–994. https://doi.org/10.1002/job.1835

Mendonça, S., Pina e Cunha, M., Kaivo-oja, J. & Ruff, F. (2004) Wild cards, weak signals and organisational improvisation. *Futures*, 36(2), 201–218. https://doi.org/10.1016/S0016-3287(03)00148-4

Miao, C.F. & Evans, K.R. (2014) Motivating industrial salesforce with sales control systems: An interactive perspective. *Journal of Business Research*, 67, 1233–1242. https://doi.org/10.1016/j.jbusres.2013.04.007

Moncrief, W.C. & Marshall, G.W. (2005) The evolution of the seven steps of selling. *Industrial Marketing Management*, 34, 13–22. https://doi.org/10.1016/j.indmarman.2004.06.001

Mueller, J.S., Melwani, S. & Goncalo, J.A. (2011) The bias against creativity why people desire but reject creative ideas. *Psychological Science*, 23, 13–17. https://doi.org/10.1177/0956797611421018

Nemkova, E., Souchon, A.L. & Hughes, P. (2012) Export decision-making orientation: an exploratory study. *International Marketing Review*, 29(4), 349–378. https://doi.org/10.1108/02651331211242610

Nemkova, E., Souchon, A.L., Hughes, P. & Micevski, M. (2015) Does improvisation help or hinder planning in determining export success? Decision theory applied to exporting. *Journal of International Marketing*, 23(3), 41–65. https://doi.org/10.1509/jim.14.0071

Nutt, P.C. (2008) Investigating the success of decision making processes. *Journal of Management Studies*, 45, 425–455. https://doi.org/10.1111/j.1467-6486.2007.00756.x

O'Brien, R.M. (2007) A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673–690. https://doi.org/10.1007/s11135-006-9018-6

O'Reilly, C.A., III, Chatman, J. & Caldwell, D.F. (1991) People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34, 487–516. https://doi.org/10.5465/256404

O'Toole, J., Gong, Y., Baker, T., Eesley, D.T. & Miner, A.S. (2020) Startup responses to unexpected events: The impact of the relative presence of improvisation. *Organization Studies*, 42(11), 1741–1765. https://doi.org/10.1177/0170840620937859

Panagopoulos, N.G., Lee, N., Pullins, E.B., Avlonitis, G.J., Brassier, P., Guenzi, P. & Oksanen-Ylikoski, E. (2011) Internationalizing sales research: Current status, opportunities, and challenges. *Journal of Personal Selling and Sales Management*, 31(3), 219–242. https://doi.org/10.2753/PSS0885-3134310302

Parhizgar, M.M., Elhami, S. & Gheysari, K.H. (2017) The effect of sales account manager improvisation on sales performance in 3 hypermarkets. *Journal of Administrative Management, Education and Training*, 13, 302–311.

Pina e Cunha, M., Clegg, S., Rego, A. & Neves, P. (2014) Organizational improvisation: From the constraint of strict tempo to the power of the avant-garde. *Creativity and Innovation Management*, 23(4), 359–373. https://doi.org/10.1111/caim.12076

Pina e Cunha, M., Vieira da Cunha, J. & Kamoche, K. (1999) Organizational improvisation: What, when, how and why. *International Journal of Management Reviews*, 1(3), 299–341. https://doi.org/10.1111/1468-2370.00017

Ping, R.A. (1995) A parsimonious estimating technique for interaction and quadratic latent variables. *Journal of Marketing Research*, 32(3), 336–347. https://doi.org/10.1177/002224379503200308

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. & Podsakoff, N.P. (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Proctor, R.A. (1991) The importance of creativity in the management field. *British Journal of Management*, 2(4), 223–230. https://doi.org/10.1111/j.1467-8551.1991.tb00028.x

Shalley, C.E., Zhou, J. & Oldham, G.R. (2004) The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6), 933–958. https://doi.org/10.1016/j.jm.2004.06.007

Sharma, S., Durvasula, S. & Dillon, W.R. (1989) Some results on the behavior of alternate covariance structure estimation procedures in the presence of non-normal data. *Journal of Marketing Research*, 26, 214–221. https://doi.org/10.1177/002224378902600207

Siemsen, E., Roth, A. & Oliveira, P. (2010) Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13(3), 456–476. https://doi.org/10.1177/1094428109351241

Simon, H.A. (1955) A behavioural model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99–118. https://doi.org/10.2307/1884852

Simon, H.A. (1960) *The new science of management decision*. New York: Harper and Brothers.

Singh, R. & Koshy, A. (2010) Determinants of B2B sales account managers' performance and effectiveness: a review and synthesis of literature. *The Journal of Business and Industrial Marketing*, 25(7), 535–546. https://doi.org/10.1108/08858621011077763

Souchon, A.L., Hughes, P., Farrell, A.M., Nemkova, E. & Oliveira, J.S. (2016) Spontaneity and international marketing performance. *International Marketing Review*, 33(5), 671–690. https://doi.org/10.1108/IMR-06-2014-0199

Sousa, C.M. & Coelho, F. (2011) From personal values to creativity: evidence from frontline service employees. *European Journal of Marketing*, 45(7/8), 1029–1050. https://doi.org/10.1108/03090561111137598

Sparks, J.R. (1994) Machiavellianism and personal success in marketing: The moderating role of latitude for improvisation. *Journal of the Academy of Marketing Science*, 22, 393–400. https://doi.org/10.1177/0092070394224008

Stajkovic, A.D. & Luthans, F. (1998) Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240–261. https://doi.org/10.1037/0033-2909.124.2.240

Strutton, D., Pentina, I. & Pullins, E.B. (2009) Necessity is the mother of invention: Why sales account manager creativity is more important now than ever and what we can do to encourage it. *Journal of Selling and Major Account Management*, 9, 20–35.

Theodosiou, M. & Katsikea, E. (2007) How management control and job-related characteristics influence the performance of export sales managers. *Journal of Business Research*, 60, 1261–1271. https://doi.org/10.1016/j.jbusres.2007.05.003

Tom, G. & Lucey, S. (1997) A field study investigating the effect of waiting time on customer satisfaction. *The Journal of Psychology*, 131, 655–660. https://doi.org/10.1080/00223989709603847

Vera, D. & Crossan, M. (2005) Improvisation and innovative performance in teams. *Organization Science*, 16(3), 203–224. https://doi.org/10.1287/orsc.1050.0126

Wang, G. & Miao, C.F. (2015) Effects of sales force market orientation on creativity, innovation implementation, and sales performance. *Journal of Business Research*, 68(11), 2374–2382. https://doi.org/10.1016/j.jbusres.2015.03.041

Wang, G. & Netemeyer, R.G. (2002) The effects of job autonomy, customer demandingness, and trait competitiveness on sales account manager learning, self-efficacy and performance. *Journal of the Academy of Marketing Science*, 30, 217–228. https://doi.org/10.1177/00970302030003003

Wang, G. & Netemeyer, R.G. (2004) Sales account manager creative performance: conceptualization, measurement, and nomological validity. *Journal of Business Research*, 57, 805–812. https://doi.org/10.1016/S0148-2963(02)00483-6

Wiltbank, R., Dew, N., Read, S. & Sarasvathy, S.D. (2006) What to do next? The case for non-predictive strategy. *Strategic Management Journal*, 27(10), 981–998. https://doi.org/10.1002/smj.555

Wolfgramm, R., Flynn-Coleman, S. & Conroy, D. (2015) Dynamic interactions of agency in leadership (Dial): An integrative framework for analysing agency in sustainability leadership. *Journal of Business Ethics*, 126(4), 649–662. https://doi.org/10.1007/s10551-013-1977-7

World Bank. (2019) *The Little Data Book on Africa 2019*. Washington, DC: World Bank.

Moorman, C. & Miner, A.S. (1998) The convergence of planning and execution: Improvisation in new product development. *Journal of marketing*, 62(3), 1-20.

Perry, L.T. (1991), "Strategic improvising; how to formulate and implement competitive strategies in concert". *Organizational Dynamics*, 19, 51-64.

**How to cite this article:** Hultman, M., Boso, N., Yeboah-Banin, A.A., Hodgkinson, I., Souchon, A.L., Nemkova, E. et al. (2022) How agency and self-efficacy moderate the effects of strategic improvisational behaviors on sales performance: Evidence from an emerging market. *European Management Review*, 19(3), 417–435. https://doi.org/10.1111/emre.12535

## APPENDIX: CONSTRUCT ITEMS AND MEASUREMENT STATISTICS

| Constructs and their measures | Loading (*t* value) | Mean (SD) | $\alpha$ | CR | AVE |
|---|---|---|---|---|---|
| Creativity | | 5.168 (0.676) | 0.808 | 0.748 | 0.517 |
| I think out of the box | 0.626 (7.653**) | 5.392 (0.901) | | | |
| I try new approaches to problems | 0.738 (9.376**) | 5.084 (0.841) | | | |
| I aim at originality in generating solutions | 0.729 (9.225**) | 5.053 (0.863) | | | |
| I am inventive in overcoming barriers | 0.775 (9.970**) | 5.152 (0.797) | | | |
| Spontaneity | | 4.776 (0.964) | 0.893 | 0.827 | 0.678 |
| I respond in the moment | 0.829 (11.482**) | 4.980 (1.130) | | | |
| I deal with it on the spot | 0.858 (12.066**) | 4.911 (1.112) | | | |
| I act spontaneously | 0.836 (11.616**) | 4.744 (1.028) | | | |
| I respond impulsively | 0.769 (10.337**) | 4.480 (1.167) | | | |
| Action-orientation | | 5.213 (0.683) | 0.713 | 0.764 | 0.503 |
| I take action | 0.688 (7.982**) | 5.363 (1.058) | | | |
| I become focused on dealing with the situation | 0.695 (8.168**) | 5.594 (1.015) | | | |
| I don't have any problem getting started on my response | 0.742 (8.980**) | 4.892 (0.782) | | | |
| I become action oriented | 0.711 (8.382**) | 5.011 (0.843) | | | |
| Adaptability | | 5.562 (0.718) | 0.874 | 0.807 | 0.720 |
| I am very flexible in the selling approach I use | 0.860 (12.013**) | 5.551 (0.808) | | | |
| I can easily use a wide variety of selling approaches | 0.940 (13.607**) | 5.492 (0.826) | | | |
| I am very sensitive to the needs of my customers | 0.733 (9.724**) | 5.653 (0.772) | | | |
| Customer demandingness | | 6.155 (0.759) | 0.798 | 0.724 | 0.573 |
| The customers I serve demand very high standards of quality | 0.759 (9.466**) | 6.301 (0.931) | | | |
| My customers require a perfect fit between their needs and our offerings | 0.806 (10.151**) | 5.994 (0.916) | | | |
| My customers expect the highest levels of product and service quality | 0.702 (8.642**) | 6.171 (0.850) | | | |
| Agency | | 5.543 (0.683) | 0.889 | 0.825 | 0.673 |
| I actively keep myself on track to complete my plans | 0.737 (9.781**) | 5.634 (0.770) | | | |
| I am conscious of my actions because they define my personal identity | 0.882 (12.566**) | 5.510 (0.816) | | | |
| When completing tasks I am conscious of what I can and cannot handle | 0.827 (11.453**) | 5.503 (0.805) | | | |
| When completing tasks, I tend to evaluate the effectiveness of my choices | 0.828 (11.484**) | 5.533 (0.763) | | | |
| Self-efficacy | | 5.678 (0.670) | 0.882 | 0.824 | 0.667 |
| I feel confident in my ability to perform my job well | 0.687 (8.983**) | 6.020 (0.731) | | | |
| I feel very capable of dealing with the demands of the sales job | 0.864 (12.243**) | 5.562 (0.814) | | | |
| I feel I have the capabilities to successfully perform this job | 0.927 (12.583**) | 5.584 (0.806) | | | |
| I feel very capable of dealing effectively with job-related problems | 0.769 (10.413**) | 5.552 (0.768) | | | |

(Continues)

| Constructs and their measures | Loading (*t* value) | Mean (SD) | $\alpha$ | CR | AVE |
|---|---|---|---|---|---|
| Experience | | 4.540 (2.714) | 0.875 | 0.810 | 0.731 |
| How many years of experience do you have in a sales job? | 0.854 (11.802**) | 6.041 (3.596) | | | |
| How many years of experience do you have in your current territory? | 0.781 (10.512**) | 3.442 (2.313) | | | |
| How many years of experience do you have in the current industry? | 0.925 (13.163**) | 4.140 (3.057) | | | |
| Compensation type | | - | - | - | - |
| Please circle the point (x) on the scale that best reflects how you are paid … (0% to 100% salary vs. commission) | 0.989 (15.484**) | 3.412 (2.120) | | | |
| Firm size | | - | - | - | - |
| Number of full-time employees (log) | 0.902 (14.111**) | 1.605 (0.186) | | | |
| Performance | | 5.118 (0.805) | 0.896 | 0.832 | 0.687 |
| Increasing market share for my company | 0.843 (11.736**) | 4.140 (0.879) | | | |
| Selling products with higher profit margins | 0.793 (10.798**) | 5.101 (0.914) | | | |
| Selling to large volume customers in my territory | 0.905 (12.991**) | 5.172 (0.995) | | | |
| Meeting the sales targets assigned to me | 0.768 (10.336**) | 5.072 (0.896) | | | |

*Note*: Fit indices: $\chi^2_{(507)} = 570.298$; NFI = 0.998; NNFI = 0.999; CFI = 0.999; SRMR = 0.061; RMSEA (90% confidence interval) = 0.024 (0.009–0.034).