Money, Recognition, Challenge, and Enjoyment:
A Response Surface Approach to Salesperson Motivation

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Abstract

Purpose – Research on salesperson motivation has historically emphasized extrinsic over intrinsic motivation, often assuming these cannot co-exist. However, research in the field of psychology suggests that certain types of motivational orientations, when combined, can enhance work outcomes. The purpose of this study is to investigate how the interplay and balance between cognitive and affective orientations of intrinsic and extrinsic motivation may influence salesperson performance and work engagement.

Design/methodology/approach – Data is collected from a cross-sectional sample of professional salespeople. Using polynomial regression with response surface analysis, this paper examines how combining and balancing intrinsic and extrinsic motivational orientations affects salesperson performance and work engagement.

Findings – Study findings reveal that combining salesperson intrinsic and extrinsic motivational orientations has a positive effect on performance and work engagement. Specifically, the highest levels of performance are achieved when salespeople's intrinsic and extrinsic motivational orientations are balanced. Finally, results highlight the important role of challenge-seeking (an intrinsic motivational orientation) in achieving the highest levels of performance and work engagement.

Originality – To the best of our knowledge, no research to date has examined the effects of combining and balancing intrinsic and extrinsic motivational orientations on the performance and work engagement of salespeople. This study expands the existing literature on salesperson motivation by utilizing polynomial regression with response surface analysis to explore the effect of combining and balancing intrinsic and extrinsic motivational orientations on salesperson performance outcomes.

Key words: *salesperson motivation, intrinsic and extrinsic motivation, response surface analysis.*

Article classification: Research paper.

1. Introduction

Salesperson motivation has long been one of the most critical challenges for sales managers (Steenburgh & Ahearne, 2012) and has been widely studied by sales researchers (Schrock *et al.*, 2016). The two most commonly discussed types of motivation are intrinsic and extrinsic (Mallin & Pullins, 2009).

Intrinsic motivation (IM) is defined as the inclination or drive to perform an activity that arises from enjoying the activity itself, without external reinforcements or rewards (Ryan & Deci, 2000), whereas extrinsic motivation (EM) is the inclination or drive to perform an activity in order to receive separable rewards, distinct from the activity itself (Deci & Ryan, 1985). While both have been studied in sales settings, EM has received the most significant attention (Khusainova *et al.,* 2018). Schrock *et al.* (2016) call for additional focus on IM in sales research, as well as the application of theoretical lenses beyond the classical expectancy theory introduced into sales by Churchill *et al.* (1976).

We respond to this call in several ways. First, we introduce an expanded conceptualization of motivational orientations in a sales setting. In doing so, we draw upon Self-Determination Theory (SDT) and on research by Amabile (1993) who suggests that intrinsic and extrinsic motivations each actually consist of cognitive and affective motivational orientations, labeled challenge-seeking (IM), task enjoyment (IM), compensation-seeking (EM), and recognition-seeking (EM).

Insert Table 1 about here

Second, while these orientations have been considered in previous studies on salesperson motivation (see Table 1), to our knowledge, these studies did not consider the interplay between intrinsic and extrinsic motivational orientations, nor how this interplay affects salesperson

performance outcomes. Historically, a key premise of motivational research was that intrinsic and extrinsic motivation cannot co-exist (Lepper *et al.,* 1973) i.e., with the emergence of extrinsic motivators, IM diminishes. However, Amabile (1993) suggest that certain aspects of intrinsic and extrinsic motivations can indeed co-exist and even work in synergy. For example, a salesperson may be motivated both by the challenging nature of winning new business (IM) and by making money (EM). So far, however, there is little empirical evidence to support this assertion, as the results of previous research have been inconclusive (Kanfer *et al.,* 2017).

Thirdly, drawing upon marketing-duality research (Kim *et al.,* 2022), we consider two perspectives to empirically address this duality in intrinsic and extrinsic motivational orientations: 1) the combining perspective (i.e., how different types of motivational orientations combine to impact work outcomes); and 2) the balancing perspective (i.e., how achieving the right balance between the two underlying activities leads to stronger performance) (Josephson *et al.,* 2016; Lavie & Rosenkopf, 2006). We use a multidimensional response surface modelling approach, which involves an omnibus test that coalesces these two perspectives, positing that both synergy and balance are important (Cao *et al.,* 2009). As such, our results support Amabile's (1993) proposed mechanism, suggesting that combining intrinsic and extrinsic motivational orientations can positively affect salesperson job outcomes. Our findings also reveal the positive effect of balancing intrinsic and extrinsic motivational orientations. We thus empirically address Schrock *et al.*'s (2016) call for new perspectives on salesperson motivation and expand the focus on intrinsic aspects of motivation. In doing so, we present significant contributions to future sales force research, as well as actionable suggestions for sales managers.

2. Research background

2.1. Intrinsic and Extrinsic Motivational orientations

Historically, the sales literature has largely concentrated on various methods of increasing EM, presenting monetary reward as a primary motivator for salespeople while mostly neglecting IM (e.g., Cravens *et al.,* 1993; Wotruba *et al.,* 1991). However, more recent research also found IM to be a stronger predictor of performance. In addition, IM was found to yield several other positive outcomes, such as increased job satisfaction, reduced burnout (Grant *et al.,* 2001; Low *et al.,* 2001), and a reduction in problematic behaviors (Murphy, 2004). Good, Hughes and Wang (2022) suggest that investigating the possibility of IM and EM co-existing will help clarify existing ambiguities and inconsistencies in the field of salesperson motivation.

The combined effects of employee IM and EM on job outcomes have been explored in organizational psychology (much of which is summarised by Kanfer *et al.,* 2017). For example, Cerasoli *et al.* (2014) conclude that although extrinsic rewards (incentives) can undermine IM (as investigated at the level of intrinsic versus extrinsic motivation), they can still co-exist fruitfully. This notion is supported by Amabile (1993, 1997), who argued that "given the right combination of personality traits and work environment contexts, intrinsic and extrinsic motivation can combine synergistically to yield high levels of performance and personal satisfaction" (Amabile, 1993, p.187). Indeed, motivation to earn money (EM), personal enjoyment of selling (IM), motivation to earn recognition from peers (EM), and willingness to work hard (IM) have all been found among the key success factors for salespeople (Keck *et al.,* 1995).

Further, Khusainova *et al.* (2018) call for future research to "investigate how salespeople's motivational orientations might work in synergy… by employing extrinsic rewards in such a way that they enhance IM" (p.13). Yet, to the best of our knowledge, no study to date has attempted to investigate the combined effect of intrinsic and extrinsic motivations upon salespeople.

Another potential solution to the question of whether and how IM and EM can combine is found in the unit of analysis. Traditionally, salesperson motivation has been investigated in terms of general intrinsic and extrinsic motivation types. However, Amabile *et al.* (1994) proposed a more refined level of analysis of motivational orientations, dividing both IM and EM into cognitive

and affective. These motivational orientations can be defined as follows: challenge-seeking (solving new and complex problems and seeking out challenging tasks); task enjoyment (enjoying sales); compensation-seeking (how much money one can earn); and recognition-seeking (receiving recognition from others). See Table 2.

Insert Table 2 about here

Accordingly, Miao, Evans and Zou (2007) found that affective and cognitive motivational orientations are distinct and that disaggregating motivation into separate orientations provides a more complete understanding. Addressing these calls for research, we examine the effect of the interplay between affective and cognitive orientations of IM and EM on salesperson outcomes. However, one question remains unanswered: is it more effective to combine intrinsic and extrinsic motivational orientations, and/or to balance them?

2.2. Self-Determination Theory and extrinsics in service of intrinsics

To answer these calls for research, we first draw on Self-Determination Theory (SDT, Deci and Ryan, 1980). SDT proposes that humans have three basic psychological needs (autonomy, competence and relatedness), and that external contexts either satisfy or frustrate these needs (Gagne & Deci, 2005). Previous applications of SDT in sales settings found strong support for its assumptions (e.g., Guenzi & Nijssen, 2024; Hohenberg & Homburg, 2016).

Second, we draw on the work of Amabile (1993), who proposed two mechanisms that underlie the positive effects of combining intrinsic and extrinsic motivations: the *motivation-work cycle match* and *extrinsics in service of intrinsics*. The *motivation-work cycle match* suggests that different types of motivations are relevant to different stages of a work cycle. While this mechanism explains how intrinsic and extrinsic motivations can operate consecutively, it does not account for situations where they co-exist. The *extrinsics in service of intrinsics* mechanism,

however, suggests that certain types of extrinsic motivators can synergistically combine with IM. For example, if a salesperson enjoys their work and finds it challenging, extrinsic rewards such as money and recognition will not diminish their intrinsic motivation. This mechanism involves extrinsic factors that enhance an individual's sense of competence (one of SDT's basic psychological needs) without undermining their autonomy in making work-related decisions (another of SDT's basic psychological needs). In other words, both financial and non-financial rewards that signify a salesperson's competence will "operate in service of intrinsic motivation" (Amabile, 1993, p.194).

3. Hypothesis development

3.1. The effect of combining intrinsic and extrinsic motivational orientations on different performance outcomes

Research on salesperson motivation has long acknowledged that motivation has a positive impact on tangible outcomes (Churchill *et al.,* 1985). One performance dimension commonly discussed in the sales literature is output performance (Oliver & Anderson, 1994), referring to the quantitative results of a salesperson's effort, such as achieving annual sales targets or generating dollar sales to the major accounts (Baldauf *et al.,* 2001).

Following Amabile's (1993) *extrinsics in service of intrinsics* mechanism, we argue that a salesperson can indeed be simultaneously motivated by monetary rewards (compensation-seeking, EM) and also by enjoying sales (task enjoyment, IM). If a salesperson experiences a high level of task enjoyment, an extrinsic motivational orientation towards monetary rewards (compensation-seeking, EM) will act in service of IM (Amabile, 1993) to deliver a more positive output performance.

Accordingly, salespeople with high task enjoyment could internalize extrinsic goals, such as sales quotas. These internalized extrinsic rewards satisfy the basic psychological need for competence (Gagne & Deci, 2005), which in turn encourages striving for good output performance. Hence, we hypothesize:

H1a. Task enjoyment (IM) combined with compensation-seeking (EM) will have a positive effect on salesperson output performance.

In addition, salespeople with high task enjoyment are more likely to feel connected to their organization, satisfying the basic psychological need for relatedness and making them likely to pursue acknowledgement and recognition (Miao *et al.*, 2007). In line with the *extrinsics in service of intrinsics* mechanism (Amabile 1993), recognition-seeking (EM) would facilitate task enjoyment (IM) to satisfy salesperson's basic psychological need for relatedness, enhancing overall motivation and improving their output performance. Hence, we hypothesize:

H1b. Task enjoyment (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson output performance.

Challenge-seeking denotes seeking out challenging sales tasks to confirm salespersons' competence (Ryan and Deci, 2000). Salespeople with high challenge-seeking consider compensation another way of signaling competence, and thereby internalize extrinsic rewards (compensation-seeking, EM). Again, the mechanism of *extrinsics in service of intrinsics* applies (Amabile 1993), where compensation-seeking (EM) facilitates challenge-seeking (IM) resulting in stronger overall motivation and better output performance. Hence, we hypothesize:

H1c. Challenge-seeking (IM) combined with compensation-seeking (EM) will have a positive effect on salesperson output performance.

Furthermore, as hypothesized in H1b and consistent with Miao *et al.* (2007), challenge-seekers are more likely to feel connected to their organization, supporting their growth mindset; whereas recognition-seekers want acknowledgment from colleagues and managers (Amabile *et al.,* 1994). Again, extrinsics in service of intrinsics applies: being acknowledged and appreciated strengthens challenge-seeking behavior and fosters a sense of connectedness, ultimately improving performance. Hence, we hypothesize:

H1d. Challenge-seeking (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson output performance.

3.2. Motivational combinations and work engagement

Recently, research has captured the importance of less tangible performance outcomes such as work engagement (Salanova *et al.,* 2005; Verbeke *et al.,* 2011). Such outcomes have important implications for overall organizational development, customer orientation, job satisfaction, and organizational commitment, which have all been linked to performance outcomes (e.g., Amabile, 1996; Miao & Wang, 2016). Indeed, Heckman and Kautz (2012) argue that society places too much emphasis on tangible variables such as outcome performance, whereas less tangible variables (e.g., work engagement) more closely predict and even create success.

Work engagement is defined as a "positive, fulfilling, work-related state of mind" characterized by "vigor, dedication, and absorption" (Schaufeli *et al.*, 2002, p.72). It is an affective-cognitive state that is not specifically concentrated on any particular objects or behavior (Schaufeli *et al.*, 2002). Hence, it does not deal with measurable and quantifiable work outcomes such as output performance, nor with specific selling activities as in behavioral performance. Rather, work engagement is about employee's connection to the work itself. It thus offers a more nuanced perspective into the relationship an employee has with their work (Maslach *et al.*, 2001).

Salespeople with high intrinsic motivation orientations, and specifically task enjoyment, are more likely to internalize external goals (e.g., sales quotas and targets, i.e., financial compensation). If a salesperson experiences high task enjoyment, an extrinsic motivational orientation towards monetary rewards can act as a supportive mechanism in service of task enjoyment (IM) (Amabile, 1993, p.194). As a result, salespeople who combine task enjoyment and compensation-seeking connect with the work itself. Hence, we hypothesize:

H2a. Task enjoyment (IM) combined with compensation-seeking (EM) will have a positive effect on salesperson work engagement.

Furthermore, salespeople with high task enjoyment (IM) are likely to seek organizational identification (Beeler *et al.*, 2020) and connection. This desire for organizational connection and recognition from peers (EM) will act in service of task enjoyment (IM), creating a fuller connection to the work itself as part of the salesperson's connection to organization, thereby positively influencing work engagement. Hence, we hypothesize:

H2b. Task enjoyment (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson work engagement.

Challenge-seeking salespeople are more likely to internalize compensation as a sign of their capability and competence (Niemiec & Ryan, 2009), so compensation-seeking (EM) will act in service of challenge-seeking through the satisfaction of the psychological need for competence. Salespeople with high challenge-seeking and internalized compensation are more likely to immerse themselves in the job, resulting in positive work engagement. Hence, we hypothesize:

H2c. Challenge-seeking (IM) combined with compensation-seeking (EM) will have a positive effect on salesperson work engagement.

Similarly, salespeople with high challenge-seeking (IM) will consider recognition as part of organizational recognition (EM), once again through the extrinsics in service of intrinsics mechanism (Amabile, 1993) and tapping into SDT's need for relatedness. Salespeople with high challenge-seeking and recognition-seeking therefore have their need for relatedness fully addressed, leading to them immersing themselves in their work and improved work engagement. Hence, we hypothesize:

H2d. Challenge-seeking (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson work engagement.

3.3. Motivational combinations and behavioral performance

A third performance criterion involves behavioral performance, which is often considered in the sales literature (e.g., Baldauf *et al.*, 2001; Miao *et al.*, 2007). This involves such activities as adaptive selling, team working, sales planning and presentations, which salespeople undertake routinely (Baldauf *et al.*, 2001).

Salespeople with high task enjoyment (IM) tend to internalize external goals, such as sales targets and other types of compensation (EM; Ryan and Deci, 2000). They will also internalize extrinsic behavior-related goals and sales tasks, such as team working and sales planning, which aligns with (1993) extrinsics in service of intrinsics mechanism. Therefore, we argue that combining task enjoyment and compensation-seeking positively affects specific selling behaviors in pursuit of external goals, i.e., behavioral performance. Hence, we hypothesize:

H3a. Task enjoyment (IM) combined with compensation-seeking (EM) will have a positive effect on salesperson behavioral performance.

Similarly, salespeople with high task enjoyment (IM) are also likely to enjoy the tangible rewards that come from success, such as compensation (EM). Compensation-seeking in service of task enjoyment will tap into the need for competence (Ryan, 2009) thereby encouraging salespersons to connect to their organization and positively influencing work engagement. Hence, we hypothesize:

H3b. Task enjoyment (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson behavioral performance.

Further, salespeople with high challenge-seeking will increasingly value external goals as a result of their high cognitive capacity, linking challenge-seeking with compensation-seeking (Miao *et al.*, 2007) in a fruitful combination that will improve performance. Hence, we hypothesize:

H3c. Challenge-seeking (IM) in combined with compensation-seeking (EM) will have a positive effect on salesperson behavioral performance.

Salespeople with high challenge-seeking will also incorporate organizational relatedness as an internal goal, thereby combining challenge-seeking (IM) with recognition-seeking (EM) to achieve higher levels of behavioral performance. Hence, we hypothesize:

H3d. Challenge-seeking (IM) combined with recognition-seeking (EM) will have a positive effect on salesperson behavioral performance.

3.4. The balancing approach

So far, research has focused on the effect of combining marketing and sales concepts that are in duality, like salesperson intrinsic and extrinsic motivation (Khusainova *et al.*, 2018), or related to differing perceptions of work-related capabilities, such as leadership styles. For instance, a study in a retail setting shows that when store managers underestimate their own leadership style compared to their frontline employees do, this positively impacts employee performance, as employees recognize and appreciate their manager's humility (Vieira *et al.*, 2021).

However, increasing attention is drawn to the balancing approach, to empirically address such dualities (e.g., Aron *et al.*, 1991; Kim *et al.*, 2022). We examine the notion of balance and propose that when intrinsic and extrinsic motivational orientations are in balance, output performance will improve.

Prior research (e.g., Good *et al.*, 2022; Khusainova *et al.,* 2018) suggests that IM and EM both impact output performance. Although IM is commonly reported as a stronger predictor of sales performance (Jaramillo *et al.*, 2007; Pettijohn *et al.*, 2002), EM still plays a vital role in the motivation-performance relationship (e.g., Miao & Evans, 2007), acting in service of IM (Amabile, 1993) when combined. Pullins (2001) suggested that less than half of a salesperson's motivation comes from EM, with the majority coming from IM. Prior research on balancing also suggests that equal engagement in different role domains buffers employees from the negative experiences encountered when too focused on a single role (Barnett & Hyde, 2001). Thus, we argue that a balance of intrinsic and extrinsic motivational orientations will lead to higher output performance. Hence, we hypothesize:

H4. Balancing combinations of affective and cognitive components of intrinsic and extrinsic motivation will lead to better salesperson output performance than when there is an imbalance.

In an attempt to explain why IM and EM have different performance outcomes, Sujan (1986) suggested that IM leads salespeople to work smarter, which has a greater impact than EM (which leads salespeople to work harder). Working smarter and harder both have important implications for salesperson's behavioral performance. As such, salespeople with high IM and EM will work both smarter and harder and will improve their ability to undertake sales-related tasks and activities than where there is an imbalance. Furthermore, balancing engagement across two distinct motivational orientations fosters more stable performance behavior, buffering the salesperson against the disadvantages of singular focus on one particular motivational orientation (Van der Borgh *et al.*, 2019). Henceforth, a balance of intrinsic and extrinsic motivational orientations will improve behavioral performance. Hence, we hypothesize:

H5. Balancing combinations of affective and cognitive components of intrinsic and extrinsic motivation will lead to better salesperson behavioral performance than when there is an imbalance.

Finally, we argue that when salespeople have high IM and EM, they will experience synergetic benefits of both intrinsic and extrinsic motivational states, leading to them being fully engaged in their work. When IM and EM are in balance, the *extrinsics in service of intrinsics* mechanism support a full connection to work and a more active performance (Kahn, 1990). Work engagement is a work-related affective-cognitive state of mind (Schaufeli *et al.*, 2002). In addition, salespeople who are driven by different motivational orientations display a more comprehensive and well-rounded engagement with the different aspects of their work context, including both the nature of the work and its outcomes (Van der Borgh *et al.*, 2019). As such, when intrinsic and extrinsic motivational orientations are in balance, staff will have a stronger effect on work engagement than when there is imbalance. Hence, we hypothesize:

H6. Balancing combinations of affective and cognitive components of intrinsic and extrinsic motivation will lead to better salesperson work engagement than when there is an imbalance.

With the three main outcome variables in mind, we empirically test the conceptual framework presented in Fig. 1.

Insert Figure 1 about here

4. Research method

4.1. Sample and data collection procedure

In order to test the proposed hypotheses, a cross-sectional survey with B2B salespeople was administered, utilizing a "snowballing" technique (Laios & Xideas, 1994) whereby respondents were encouraged to repost and spread the survey. Initially, a combination of email and social media channels was utilized to distribute the survey, primarily professional social media networks and discussion groups. Research Ethics Approval Application was submitted and granted by the Aston University Ethics Committee.

Data was collected over three weeks, generating a total of 212 salesperson questionnaires. After a manual check, 16 questionnaires were eliminated as incomplete, leaving 195 usable questionnaires. In order to ensure that only professional B2B salespeople participated in the study, two screener items were used. The first question was at the beginning of the questionnaire, asking respondents to confirm that they work in B2B sales. Respondents were screened out if they did not confirm. The second question was positioned towards the end of the questionnaire, as a final check, asking the respondents to re-state their position and industry.

Salespeople represented B2B companies from various industries with the greatest proportion from the UK and US. The group 'other' contained several countries with two respondents per country (New Zealand, Bulgaria, Australia, Germany, Malaysia, Brazil and two unknown) and one respondent per country (Bosnia and Herzegovina, Brunei, Hong Kong, Indonesia, Italy,

South Korea, Lithuania, Luxemburg, Pakistan, Poland, Portugal, Qatar, Spain and Tasmania). Table 3 below presents the respondents by region and country.

Insert Table 3 about here

4.2. Measurement model

The questionnaire was based on existing validated scales from recent marketing and sales literature (see Appendix 1). The four motivational orientations (two for IM and two for EM) were measured using scales developed by Miao and Evans (2014a), based on Amabile *et al.* (1994). Scale reliability (Cronbach's alpha) for challenge-seeking is 0.85; for task enjoyment 0.77; for compensation-seeking 0.70; and for recognition-seeking 0.87. Output performance and behavioral performance were both measured using a scale developed by Miao and Evans (2007) based on Behrman and Perreault Jr (1982). Scale reliabilities are 0.80 and 0.61 respectively. Work engagement was measured using a short version of the Utrecht Work Engagement Scale (UWES-9) that has been validated in a number of countries (Salanova *et al.,* 2005). Scale reliability is 0.92. Further, the questionnaire sought demographic information, including age, gender, education and sales experience (general experience in sales, experience in the current position and experience in the current company). Descriptive statistics for the study data are presented Table 4.

Insert Table 4 about here

Confirmatory factor analysis (CFA) was conducted to assess the psychometric properties for each construct, demonstrating acceptable results for the constructs under study (see Table 5). The overall model fit indices demonstrate an acceptable model fit. The Chi-Square $\chi^2 = 487.890$ (df =

303)), comparative fit index (CFI) = .909 and Tucker-Lewis index (TLI) = 0.895) (Hu & Bentler, 1999). Root Mean Square Error Of Approximation (RMSEA) = 0.058, which is below the recommended value of 0.06 (Hu & Bentler, 1998). Standardized Root Mean Square Residual (SRMR) = 0.074 which is below the recommended threshold of 0.08 (Hu & Bentler, 1998, 1999). Close examination of individual residuals and other indicators indicated no major deviations or concerns.

In addition, the CFA shows highly significant standardized factor loadings (Table 5), indicating convergent validity (Anderson & Gerbing, 1988). Goodness-of-fit indices for the CFA indicate that model fit could be somewhat improved (χ^2= 393.23; d.f. = 84; χ^2/d.f. = 4.68; root mean square error of approximation [RMSEA] = 0.14 ; comparative fit index [CF] = 0.77; standardized root mean square residual [SRMR] =0.13) (Hu and Bentler, 1998, 1999). However, composite reliability values (CR) range between 0.70 and 0.87, above the threshold of 0.60 suggested by Bagozzi and Yi (1988), and the average variance extracted (AVE) ranged between 0.41 and 0.72, with compensation-seeking and task enjoyment constructs slightly below the recommended threshold of 0.50 (Fornell & Larcker, 1981). Discriminant validity is assessed by comparing the correlations of all pairs of constructs with the square-root of AVE (highest correlation 0.28 challenge-seeking/task enjoyment compared to lowest square-root of AVE, 0.64). Such a comparison supports discriminant validity. In conclusion, analyzing the validity of Miao and Evans (2014b) IM and EM dimensions using CFA largely warrants their inclusion in the analysis. As such, we judged that our model was appropriate to test theory.

Insert Table 5 about here

4.3. Analytical procedure

Once the data was organized and cleaned, polynomial regression with response surface analysis was performed following the steps outlined by Shanock *et al.* (2010) and Ahearne *et al.* (2013). This approach was chosen because it allows for a fine-grained exploration of the interactions between intrinsic and extrinsic motivation orientations. Unlike traditional interaction-based approaches, response surface models does not assume a linear relationship between predictors and outcomes, but instead capture curvilinear effects and patterns of congruence (balance) or discrepancy (imbalance). The response surface analysis technique has previously been applied to model complex relationships between interacting psychological constructs (Shanock *et al.*, 2010). More specifically, applying this method and isolating dependent variables for empirical testing, we aim to disentangle the complex interactions between intrinsic motivation (IM) and extrinsic motivation (EM) on salesperson job outcomes. This approach allows us to systematically examine the unique interaction effects of IM and EM dimensions on behavioral and output performance. By isolating these effects, we can assess how IM and EM individually and in combination contribute to different dimensions of salesperson job outcomes, thereby providing a more nuanced understanding of different motivational dimensions' relative importance in driving salesperson performance. This analytical approach aligns with the complex entanglement of motivational dimensions hypothesized and enables us to explore the relationships between motivation and performance in greater detail. Applying this method allows us to sees the degree and direction of balance or imbalance between intrinsic and extrinsic motivational orientations.

For instance, in the first combination of motivational orientations, X is a challenge-seeking orientation (IM, cognitive), Y is a compensation-seeking orientation (EM, cognitive) and Z is an output performance (outcome variable). Hence, the polynomial regression where challenge-seeking and compensation-seeking variables form a congruence measure, and output performance is specified as the dependent variable, can be presented as follows:

$$Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e.$$

(Eq. 1)

where b_1 is the unstandardized beta coefficient for the

centered challenge-seeking variable; and

b_2 is the unstandardized beta coefficient for the centered compensation-seeking variable

A three-dimensional plot is then created where Z is dependent on the values of the congruence measure (i.e., X and Y); and the information from the surface along the symmetry (congruence) line represents the change in the outcome variable as a result of a change in the level of congruence between X and Y (Ahearne *et al.*, 2013). The surface of the line of perfect agreement (Y = X) can be presented as follows:

$$Z = b_0 + (b_1 + b_2)X + (b_3 + b_4 + b_5)X^2 + e.$$

(Eq. 2)

Where b_3 is the unstandardized beta coefficient for the centered challenge-seeking variable squared;

b4 is the unstandardized beta coefficient for the cross-product of the centered challenge-seeking and centered compensation-seeking variables; and

b5 is the beta coefficient for the centered compensation-seeking variable squared.

In equation (Eq. 2), $b_1 + b_2$ represent a_1, i.e., $a_1 = (b_1 + b_2)$ which characterizes the slope of the line of perfect agreement between challenge-seeking and compensation-seeking as they relate to output performance, whereas $b_3 + b_4 + b_5$ represent a_2, $(= b_3 + b_4 + b_5)$ which characterizes the curvature along the line of perfect agreement as related to output performance.

Contrary to this, a surface along the asymmetry (incongruence) line (Y = -X) represents the change in the outcome variable, output performance, as incongruence between X (challenge-seeking) and Y (compensation-seeking) increases:

$$Z = b_0 + (b_1 - b_2)X + (b_3 - b_4 + b_5)X^2 + e.$$

(Eq. 3).

In this equation, $b_1 - b_2$ represent a_3, i.e., $a_3 = (b_1 - b_2)$ which characterizes the direction of the discrepancy (challenge-seeking higher than compensation-seeking or vice versa), and $b_3 - b_4 + b_5$ represent a_4, i.e., $a_4 = (b_3 - b_4 + b_5)$ which represents the curvature of the line of incongruence as related to Z (output performance) demonstrating the degree of discrepancy between X (challenge-seeking) and Y (compensation-seeking), and output performance.

Below, the steps required to complete the hypothesis testing are outlined and discussed.

Step 1 aims to detect discrepancies in the sample, as well as their percentage and direction. This step, initially suggested by Fleenor *et al.* (1996), consisted of calculating how many participants in the study would be considered to have discrepancies in the predictor variables of IMxEM, EMxEM and IMxIM combinations. For instance, for the challenge-seeking and compensation-seeking combination, participants with a standardized score (ZScore) for challenge-seeking that were half a standard deviation above or below the ZScore for compensation-seeking were considered discrepant (Shanock *et al.,* 2010). In the present sample, for all combinations of IMxEM, IMxIM and EMxEM, more than half of the variables in each combination are different from each other in one direction or the other. Table 6 demonstrates the frequencies of challenge-seeking levels over, under, and in agreement with compensation-seeking levels. For instance, in 40% of cases, levels of challenge-seeking are greater than those of than compensation-seeking; in 21% of the cases they are in agreement; and in 38% of cases levels of challenge-seeking are lower than those for compensation-seeking.

Insert Table 6 about here

As can be seen from Table 5, more than half our sample has values discrepant from each other in one direction or the other. Hence, it can be concluded that proceeding with this analysis is practically meaningful (Shanock *et al.,* 2010).

In Step 2 polynomial regression was run and the surface values were calculated (as recommended by Atwater *et al.*, 1998). Here the values were centered around the midpoint of the

scale, as recommended by Edwards (2007). Since all the variables were measured on a 7-point Likert scale (from 1= strongly disagree to 7 = strongly agree), 4 was subtracted from each score.

Next, three new variables were created. In the first example of the combination of challenge-seeking and compensation-seeking, the following new variables are created: (1) centered challenge-seeking squared; (2) centered compensation-seeking squared; (3) and a cross-product of centered challenge-seeking and compensation-seeking. Next the results are evaluated using four surface test values: a1, a2, a3 and a4.

In Step 3 results are graphed in Excel using the graphing function. Finally, step 4 concerns the interpretation of the results which are presented and discussed in the next section. To improve the robustness of the results, we included controls for salesperson characteristics (geographical region, gender, age, educational level and experience). We also ran robustness checks, substituting regional affiliations with Hofstede's cultural dimensions to produce similar results.

5. Analysis and results

5.1. Main results

The results of the polynomial regression with response surface analysis are interpreted using three-dimensional response surface graphs and the calculated surface values, as shown in Figures 2 and 3 below.

Insert Figure 2 about here

Insert Figure 3 about here

Figure 2 presents the three-dimensional response surface for the relationship between task enjoyment (IM), compensation-seeking (EM) and output performance. The surface plot indicates that higher levels of both task enjoyment and compensation-seeking lead to better output performance, with the highest levels observed when both motivational orientations are balanced at high levels. This supports H1a, confirming that intrinsic and extrinsic motivation can work together synergistically rather than in opposition.

In contrast, Figure 3 presents the response surface for challenge-seeking (IM) and recognition-seeking (EM) on salesperson work engagement. Interestingly, this model exhibits a different pattern: work engagement increases when challenge-seeking is high, regardless of recognition-seeking levels. This suggests that salespeople who are highly driven by challenges do not necessarily require external recognition to stay closely engaged with their work. This finding indicates that certain extrinsic rewards may become redundant when intrinsic motivation is sufficiently high (Amabile, 1993).

H1a-H1d and H2a-H2d suggest that the combinations of intrinsic and extrinsic motivational orientations (IMxEM) will have a positive effect on (H1) salesperson output performance and (H2) salesperson work engagement. Hence, H1and H2 would be supported if the coefficient a1 is significant and positive in the relevant results. These coefficients can be seen in Table 7, which presents the results for the hierarchical polynomial regression models for output performance, and for work engagement.

Insert Table 7 about here

Table 7 shows that the surface tests for all four combinations result in significant slope coefficients (a1) and nonsignificant curvatures (a2) for both outcome performance and workplace engagement. Thus, H1a-H1d and H2a-H2d are all supported.

H3a-H3d suggest that combinations of intrinsic and extrinsic motivational orientations will have a positive effect on salesperson behavioral performance. However, for all motivational

combinations as they relate to behavioral performance, a1 is not significant. Hence, H3a-H3d are not supported. For the purposes of clarity, these results are not included in Table 7, although they are available on request from the authors.

H4 and H5 posit that balance in the combinations of intrinsic and extrinsic motivational orientations (IMxEM) will improve salesperson output performance (H4) and work engagement (H5) than when there is an imbalance. Thus, H4 and H5 will be supported if the highest levels of output performance (H4) and the highest level of work engagement (H5) are achieved in situations when there is a balance between these motivational orientations.

The results of the surface tests suggest that, for combinations of motivational orientation constructs that include task enjoyment, graphs show a slightly inverted u-shape, indicating imbalance. However, there is a significantly positive a1 for all combinations, resulting in the highest levels of output performance and work engagement when motivational combinations are in agreement (i.e., balance) at their highest levels. Only the model in which challenge-seeking (IM) and recognition-seeking (EM) relate to output performance shows significant results in relation to a3, indicating that the highest level of output performance is achieved when there is discrepancy rather than balance between the two motivational constructs. This suggests that being motivated by challenges renders recognition-seeking orientation redundant. For all remaining models, there is no significant a3 or a4, indicating that output performance and work engagement can be increased when discrepancy is present, but the highest outcome levels are achieved when motivational constructs are in balance. Hence, H4 is partially supported and H5 is fully supported.

H6 states that congruence in combinations of affective and cognitive components of intrinsic and extrinsic motivation is an important influence on salesperson behavioral performance. Again, as the relationships between the combinations of motivational orientations and behavioral performance are not significant, the information on the importance of congruence within motivational orientations as they relate to behavioral performance cannot be assessed. Hence, H6a-H6d are not supported. Results of these tests are available on request.

5.2. Additional (non-hypothesized) results

In addition to the main hypothesized relationships, the results of the surface tests shed some light on which combinations of IM and EM lead to the best output performance.

Specifically, the surface tests show that for the combination of challenge-seeking and recognition-seeking motivational constructs, the slope of the line of incongruence as related to output performance (a3) is statistically significant, indicating that a discrepancy between these two variables influences salesperson output performance. That is, output performance increases with increasing discrepancy in challenge-seeking and recognition-seeking motivation, i.e., challenge-seeking increases and recognition-seeking decreases, all other things being equal. For the two models including task enjoyment as a motivational construct, the table shows a statistically significant a4. This indicates a curvature along the line of incongruence, indicating that an increase in output performance is associated with high levels of task enjoyment combined with lower levels of compensation, and vice versa.

These results suggest that high levels of output performance are associated with three different types of motivational combination: a) when compensation-seeking is high and task enjoyment is low; b) when task enjoyment is high and compensation is low; and c) when both compensation-seeking and task enjoyment are at their highest levels, which is when the highest level of output performance is observed. This is also the case for the combination of task enjoyment and recognition-seeking, as this model also has a statistically significant a4.

Insert Figure 4 about here

Further to this, we also include additional analyses of purely intrinsic (IMxIM) and purely extrinsic combinations (EMxEM) in relation to the notion of balance (Figure 4). These analyses further highlight the role of balance in achieving desired outcomes. The IMxIM combination of task enjoyment and challenge-seeking exhibits a positive slope (a1: b=0.85, p=0.003) for output performance and for work engagement (b=0.98, p=0.000). However, the significant negative

curvature (a2: b=-0.14, p=0.001) suggests a nonlinear relationship, where work engagement drops sharply when both task enjoyment and challenge-seeking are at their lowest levels. In contrast, the EMxEM combination of recognition-seeking and compensation-seeking shows a linear, but weaker, positive effect on both output performance and work engagement (a1: b=0.31, p=0.002 and b=0.32, p=0.001, respectively). These results suggest that extrinsic motivation alone is a weaker driver of sales outcomes compared to the IMxEM or IMxIM combinations.

Taken together, our findings reinforce that balance, particularly between intrinsic and extrinsic motivation, drives optimal outcomes. While IMxIM combinations can be effective, their impact diminishes at low levels, while, purely extrinsic motivation (EMxEM) has a weaker and more linear effect, suggesting that financial and recognition-based incentives alone are suboptimal. This highlights the importance of integrating intrinsic divers into motivation strategies.

6. Discussion and research implications

Research on salesperson motivation spans decades, yet little is known about how intrinsic and extrinsic motivational orientations combine to impact sales performance and work engagement. Using polynomial regression with response surface analysis, this study uncovers novel insights, such as the importance of balance in the combinations of motivational orientations, thereby expanding our understanding of salesperson motivation. As such, our results offer important contributions to the sales domain.

First, our results demonstrate that intrinsic and extrinsic motivational orientations can indeed co-exist and in combination have a positive combined effect on salesperson work outcomes. All four combinations of intrinsic and extrinsic motivational orientations have a positive effect on salesperson output performance and work engagement. Thus, salespeople can simultaneously be both intrinsically and extrinsically motivated. Furthermore, response surface modeling enabled us to detect that extrinsic motivation alone (EMxEM) has a weaker, more linear effect. Traditionally, salesperson motivation to perform has been linked almost exclusively to extrinsic motivators (e.g., Oliver, 1974; Walker *et al.*, 1977), an assumption commonly referred to as the "conventional wisdom" of salesperson motivation (e.g., Cravens *et al.*, 1993; Wotruba *et al.*,

1991). Our findings demonstrate that in fact the highest levels of output performance and work engagement are associated with IMxEM combinations. This study herewith uncovers a more complex structure to the relationship between salesperson motivation and key outcomes.

Second, balance between intrinsic and extrinsic motivational orientations has been found to lead to higher levels of output performance and work engagement, compared to imbalance (e.g., high challenge-seeking (IM) combined with low compensation-seeking (EM)). This finding empirically substantiates the notion that in order to maximize the "power" of motivation, it is best to consider both intrinsic and extrinsic motivational orientations, creating a motivational synergy (Amabile, 1993).

Next, the study results provide an insightful view into the challenge-seeking orientation (IM), shedding new light on this important intrinsic motivational orientation. In all variations of IMxEM combinations, the highest levels of both output performance and work engagement are achieved by a combination of challenge-seeking with either compensation-seeking (for output performance outcome) or recognition-seeking (for work engagement) respectively. Challenge-seeking denotes staff taking pleasure in solving new and complex problems and seeking out challenging tasks (Stoverisk *et al.,* 2018). Prior studies of challenge-seeking in the sales motivational literature have been extremely limited (e.g., Miao *et al.,* 2007). Hence, our study reveals the significance of this motivational orientation in overall salesperson motivation.

Finally, our results suggest there were no significant effects of any of the combinations of the IM and EM on behavioral performance. Behavioral performance typically reflects specific customer-related sales activities. While it is a well-established measure, it appears that, due to recent changes in the sales field (Khusainova *et al.*, 2018; Mullins *et al.*, 2023), salespeople regard these specific sales activities as a less essential aspect of their performance compared to output performance and work engagement (Salanova *et al.*, 2005). These latter outcomes may allow salespeople to feel the sense of autonomy that is a basic psychological need, according to the SDT (Deci and Ryan, 1985). Salespeople may want to have more control over how they achieve their performance outcomes. Perhaps, it is time to replace the measure of behavioral performance with more suitable soft job outcome measures, such as learning orientation (Sujan *et al.,* 1994) or growth mindset (Dweck, 2015).

7. Managerial implications

This study offers several important suggestions for managers. Sales managers should seek to create a workplace that facilitates and promotes task enjoyment, without an over-emphasis on compensation-seeking. A focus on performance-contingent rewards such as bonuses and commissions (Kishore *et al.*, 2013) can be harmful to IM (see Kanfer *et al.*, 2017 for summary). As Alfie Kohn (1993) put it: "pay workers well and fairly and then do everything possible to help them forget about money".

In terms of work engagement, the most effective strategy is to nurture task enjoyment in combination with recognition-seeking. Recognition is one of the key non-monetary rewards available to salespeople (Chonko *et al.*, 1992). Such acknowledgements might include appearing in an organization newsletter or a public 'pat on the back' from a supervisor. In addition, sales managers are advised to nurture task enjoyment by providing salespeople with variety and autonomy.

Finally, sales managers are encouraged to focus on performance management practices that promote autonomy (i.e., a sense of freedom and choice for salespeople), adapting feedback and management styles even in rigid reporting environments.

In summary, we encourage sales managers to explore and become familiar (in a strategic sense) with management practices and organizational norms around sales management and utilize a more balanced approach to salespeople motivation. In this way, sales managers can avoid an overemphasis or concentration (perceived or otherwise) on a single type of motivation.

8. Limitations and future research

Although this study offers valuable insights for research in salesperson performance and motivational research, it is not without limitations. Firstly, while the data and methods were sufficient for exploring IM and EM motivational combinations, they include some constraints on establishing causal relationships. While such an endeavor is always difficult in behavioral research, future studies should consider alternative designs to strengthen the robustness of the paper's results. For instance, future studies could take an experimental approach to manipulate the antecedents of the affective and cognitive components of IM and EM motivations and combinations. Second, adopting a longitudinal design, rather than a cross-sectional one, could enable an even more nuanced and robust understanding of the dynamic and complex interplay between motivations and salesperson performance over time (Childs *et al.*, 2024). Such a design could also consider the impact of external contextual factors such as economic conditions or changes in the market. Third, to assess the psychometric quality of the motivational orientation measures, CFA was performed. Although some items showed relatively low loadings, the overall outcome was acceptable. To remain theoretically consistent with recent work, which uses the same scales (e.g., Miao and Evans 2007), we decided to keep the measures as originally specified. We acknowledge this as a limitation and recommend future research consider ways to update and adjust these scales to further improve their psychometric quality.

Finally, future research should explore whether tailoring motivational approaches to specific customer-related goals yields better results. This would require developing a more detailed and precise measure of motivational factors that align more closely with specific performance criteria. Investigating how these customized motivational strategies impact targeted customer outcomes can provide a clearer understanding of the relationship between motivation and achieving specific goals.

Appendix 1. Questionnaire items

Construct/variable and source	Items (1=fully disagree, 7=fully agree)
Challenge-seeking Miao and Evans (2014a) based on Amabile *et al.* (1994).	• I enjoy tackling sales problems that are completely new to me. • I enjoy trying to solve complex sales problems. • The more difficult the sales problem, the more I enjoy trying to solve it. • I prefer work that stretches my abilities.
Task enjoyment (as above)	• What matters most to me is enjoying my selling job. • It is important for me to be able to enjoy my selling job. • I enjoy selling for the pleasure of it. • It is the experience of selling that gives me the most pleasure
Compensation-seeking (as above)	• I am strongly motivated by the money I can earn in my sales job. • I want fellow workers to find out how good I really can be at work. • I am keenly aware of the promotion goals I have for myself. • Money is the main motivator of my selling job.
Recognition-seeking (as above)	• I am strongly motivated by the recognition I can earn from other people. • I want other people to find out how good I really can be at my work. • It is important that fellow workers look up to me.
Output performance Behrman and Perreault Jr (1982)	• I am very effective in contributing to my firm's market share. • I am very effective in generating high-level sales. • I am very effective in selling to major accounts. • I am very effective in exceeding annual sales targets and objectives.
Behavioral performance (as above)	• I am very effective in maintaining good customer relations. • I am very effective in providing accurate information to customers and other people in my company. • I am very effective in providing accurate and complete paperwork.

	• I am very effective in acquiring the necessary knowledge about my products, competitor's products, and my customers' needs.
Work engagement Salanova *et al.* (2005)	• At my work, I feel bursting with energy. • At my job, I feel strong and vigorous. • When I get up in the morning, I feel like going to work. • I am enthusiastic about my job. • My job inspires me. • I am proud of the work that I do. • I feel happy when I am working intensely. • I am immersed in my work. • I get carried away when I am working.

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