Journal of the Academy of Marketing Science

Artificial Intelligence in Salesperson Judgment and Decision Making: A Contingency Model

--Manuscript Draft--

Manuscript Number:	JAMS-D-25-00028
Full Title:	Artificial Intelligence in Salesperson Judgment and Decision Making: A Contingency Model
Article Type:	Original Empirical Research
Keywords:	Salespeople Judgment; Uncertainty; Escalation of commitment; Artificial intelligence; Selling situation
Corresponding Author:	Khashayar Afshar Bakeshloo, Ph.D. University of Mississippi Oxford, Mississippi UNITED STATES OF AMERICA
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	University of Mississippi
Corresponding Author's Secondary Institution:	
First Author:	Khashayar Afshar Bakeshloo, Ph.D.
First Author Secondary Information:	
Order of Authors:	Khashayar Afshar Bakeshloo, Ph.D. Raj Agnihotri Elizabeth Hoffman Barry Babin
Order of Authors Secondary Information:	
Funding Information:	Iowa State University — Dr. Khashayar Afshar Bakeshloo
Abstract:	Salespeople are unique decision-makers and have access to many company resources. Yet, limited research addresses their judgment and decision-making, especially concerning salespeople's biases. The authors investigate selling situations as a primary driver of salespeople's biases in judgment and decision-making (i.e., escalation of commitment). They identify four categories of selling situations based on two determinants. Our results show that salespeople's escalation of commitment is highest when they sell solutions (vs. products) and do not use AI in the selling and decision-making process. In contrast, escalation of commitment is lowest when salespeople sell products and use AI in the selling and decision-making process. The extent of this bias also varies by salesperson-specific moderators, such as their hunting orientation and newness of the customer portfolio. The authors discuss the theoretical and managerial implications of these findings. In particular, the results portray persistence as a two-headed monster and offer guidance for management in understanding and managing salespeople to reap benefits and avoid detriments of salesperson persistence. One key is the manner in which AI is deployed.

Professors Charles Noble and Stephanie Noble
Editors-in-Chief, *Journal of Academy of Marketing Science*

Dear Professors Charles Noble and Stephanie Noble,

My co-authors—Raj Agnihotri, Elizabeth Hoffman, Barry Babin—and I are delighted to submit our manuscript titled "Artificial Intelligence in Salesperson Judgment and Decision Making: A Contingency Model" for consideration for possible publication in the *Journal of the Academy of Marketing Science*.

Salespeople are unique decision-makers with access to many company resources. However, limited research examines their judgment and decision-making, particularly regarding biases. Our study investigates selling situations as a primary driver of salespeople's biases in judgment and decision-making, specifically escalation of commitment. We identify four categories of selling situations based on two key determinants.

Our findings reveal that salespeople's escalation of commitment is highest when selling solutions (versus products) and not using AI in their selling and decision-making processes. In contrast, escalation of commitment is lowest when selling products and using AI. Furthermore, the extent of this bias varies depending on salesperson-specific moderators, such as their hunting orientation and the newness of their customer portfolio. We discuss the theoretical and managerial implications of these findings, highlighting the dual nature of persistence and offering guidance for leveraging AI to optimize salesperson performance.

To assist in the review process, we would like to suggest the following potential reviewers for your consideration:

- Dr. Nawar Chaker; nawarchaker1@lsu.edu
- Dr. Ryan Mullins; rmullin@clemson.edu

We look forward to hearing from you and the review team once the review process is complete.

Sincerely,

Kash Afshar
Assistant Professor of Marketing
The University of Mississippi

Title Page w/ ALL Author Contact Info.

Artificial Intelligence in Salesperson Judgment and Decision Making: A Contingency Model

Khashayar (Kash) Afshar Bakeshloo*
Assistant Professor of Marketing
Department of Marketing, Analytics, and Professional Sales
Ole Miss Business, The University of Mississippi
Email: kafshar@olemiss.edu

Raj Agnihotri
Morrill Professor, Mary Warner Fellow, and Professor of Marketing
Assistant Dean of Industry Engagement
Ivy College of Business
Iowa State University
Email: raj2@iastate.edu

Elizabeth Hoffman
Professor of Economic
Iowa State University
President Emerita, University of Colorado System (Public finance, graduate experimental economics, and micro principles)
Email: bhoffman@iastate.edu

Barry Babin
Professor of Marketing
Chair of the Department of Marketing, Phil B. Hardin Chair
Department of Marketing, Analytics, and Professional Sales
Ole Miss Business, The University of Mississippi
Email: bjbabin@olemiss.edu

* Corresponding author.

Declarations

Conflict of interest. The authors declare that they have no conflict of interest. The authors have no relevant financial or non-financial interests to disclose.

Funding. This research was funded by Iowa State University through PhD student research support.

Ethical Approval. This study received approval (with an "Exempt" tag) from IRB (Iowa State University- irb@iastate.edu) on October 12, 2021.

Author contributions:

Khashayar Afshar Bakeshloo [study design, material preparation, data collection, analysis, conceptualization, writing, review and editing, funding acquisition]
Raj Agnihotri [study design, material preparation, data collection, conceptualization, review and editing, writing]
Elizabeth Hoffman [study design, material preparation, review and editing]
Barry Babin [review and editing]

Data Availability. The data for this study are available upon request.

Acknowledgment. We gratefully acknowledge the contributions and support of all individuals and organizations who helped develop this research. Their insights and resources have been invaluable in shaping the direction and quality of this work.

Artificial Intelligence in Salesperson Judgment and Decision Making: A Contingency Model

Abstract

Salespeople are unique decision-makers and have access to many company resources. Yet, limited research addresses their judgment and decision-making, especially concerning salespeople's biases. The authors investigate selling situations as a primary driver of salespeople's biases in judgment and decision-making (i.e., escalation of commitment). They identify four categories of selling situations based on two determinants. Our results show that salespeople's escalation of commitment is highest when they sell solutions (vs. products) and do not use AI in the selling and decision-making process. In contrast, escalation of commitment is lowest when salespeople sell products and use AI in the selling and decision-making process. The extent of this bias also varies by salesperson-specific moderators, such as their hunting orientation and newness of the customer portfolio. The authors discuss the theoretical and managerial implications of these findings. In particular, the results portray persistence as a two-headed monster and offer guidance for management in understanding and managing salespeople to reap benefits and avoid detriments of salesperson persistence. One key is the manner in which AI is deployed.

Keywords: Salespeople Judgment; Uncertainty; Escalation of commitment; Artificial intelligence; Selling situation

Introduction

Inaccurate judgments and biased decision-making by salespeople impact the organizational bottom lines through lost revenue and/or increased costs of sales. Consequently, salespeople must make good decisions about spending scarce resources, choosing which accounts to pursue, and time allocations to customers and prospects (Mayberry et al., 2018; Bonney et al., 2014). Given the idiosyncratic characteristics of their job, salespeople can be viewed as unique decision-makers (Lam & van der Burgh, 2021). Consequently, recent scholarly attention has shifted toward salespeople's judgment and decision-making (e.g., Hall et al., 2015; Lam & van der Burgh, 2021; Xu et al., 2022). Further, they are expected to effectively balance their resource allocation among different activities such as selling vs. service (e.g., Mullins et al. 2020) and/or hunting vs. farming (e.g., DeCarlo & Lam., 2016).

Previous research on salespeople's judgment and decision-making falls into several categories. For example, (i) salespeople's judgment of customer or market information (e.g., Hall et al., 2015; Mullins et al., 2014; Homburg et al., 2009; McFarland et al., 2006) (ii) how salespeople make decisions or the factors influencing their decision-making (e.g., Locander et al., 2014; Agnihotri et al., 2012), (iii) the impact of salespeople's judgment on their behavior (e.g., Sarin et al., 2012), and (iv) salespeople's role in dealing with uncertainty (Ahearne et al., 2010; Ulaga & Kohli, 2018). Yet, a more recent research trend in salespeople's judgment and decision-making focuses on salespeople's biases in decision-making (Bonney et al., 2014; Mayberry et al., 2018; Lam et al., 2019). Although the extant research offers valuable insights into judgment and decision-making in the sales context (See Table 1), these insights are, at best, fragmented (Lam & van der Borgh, 2021), and several critical gaps still exist in the literature.

First, literature emphasizes the need to study the impact of various factors such as different selling tasks and technology on salespeople's judgment and decision-making (Lam & van der Borgh, 2021). For example, it has been shown that solution selling (vs. product selling) involves more uncertainty and requires unique responsibilities from salespeople (Ulaga & Kohli, 2018). Research also suggests that a solution-selling approach affects a salesperson's calibration decision-making strategy (Xu et al., 2022). However, limited research investigates this factor as a selling situation determinant affecting other aspects of salespeople's judgment and decision-making, including their biases.

Second, cutting-edge technologies, such as those powered by artificial intelligence (AI), significantly impact different aspects of business such as marketing strategies, sales processes, and buyer behaviors (Davenport et al., 2020). Sales organizations are encouraged to use AI for different tasks including training, lead generation and qualification, presentation, pricing, personalization, and service (Luo et al., 2021; Syam & Sharma, 2018; Huang & Rust, 2021; Grewal et al., 2020; Huang & Rust, 2018; Fotheringham & Wiles, 2023). However, there is a lack of research investigating the impact of such technologies on salespeople's judgment and decision-making. Specifically, little is known about a salesperson's decision on *whether or when to* adopt AI or for *what* kind of tasks (Lam & van der Borgh, 2021). This is an important gap, given the widespread use of AI in selling tasks.

Third, previous sales research examines outcomes related to judgment and decision-making (e.g., Xu et al., 2021). However, with a few exceptions (e.g., Mayberry et al., 2018), there is little research investigating salespeople's biases and rationalities in their judgment and decision-making in certain tasks (Lam & van der Borgh, 2021). Specifically, there is a gap regarding the biases in judgment and decision-making related to salespeople's effective resource

allocation on pursuing and re-pursuing customer accounts. Research shows (e.g., Bonney et al., 2014) that salespeople, like other decision-makers, are vulnerable to biases in decision-making under radical uncertainty. In other words, when faced with potential losses, they tend to be prone to escalation bias, termed as escalation of commitment (hereafter, EOC) to a certain account, while the better decision would be to terminate the project to prevent losing more resources and opportunities. Given the detriments that such bias of the salespeople can cause to the firm, it is vital to study and understand this phenomenon further.

Based on the above-mentioned research gaps, this paper is a response to call for research (Lam & van der Borgh, 2021) on salespeople's decision-making and judgment. To this end, we address following research questions:

RQ1: Whether escalation biases in judgment and decision-making are an issue in the sales context?

RQ2: What type of selling situations impact salespeople's judgment and decision regarding resource allocation in the B2B sales context?

RQ3: Do salespeople escalate their commitment to a specific account more in the presence or absence of AI?

RQ4: What are the boundary conditions that selling organizations should be aware of to minimize the impact of salespeople biases?

To answer these questions, first, we use depth interviews with B2B salespeople of a U.S.-based global manufacturer to evaluate the prevalence of salespeople's biases in their judgment and decision-making. This effort helps us understand that the origin of one such bias in salespeople's judgment and decision-making is the tension between salespeople's persistence

and effective resource allocation. We, then investigate a unique CRM dataset provided to the researchers by a U.S.-based consulting firm. The dataset includes details of the customer problems and seller's offerings. A qualitative exploration of project descriptions combined with an investigation of the literature enables us to identify different selling situations. We categorize selling situations into four groups by combining two factors: (1) whether the salesperson is oriented toward selling products vs. providing customer solutions, and (2) whether the lead was generated and qualified by AI. We build on conviction narrative theory (Tuckett & Nicolic, 2017)- a theoretical lens adopted from the psychological economics literature- to develop our hypotheses. Finally, we empirically test our framework on a set of individual-level experimental data from real salespeople. Given the nature of decision-maker escalation bias in judgment and decision-making, experimental research is an appropriate approach to test the framework (e.g., Bonney et al. 2014; Boulding et al., 2017; Biyalogorsky et al., 2006).

The results suggest that salespeople are most prone to EOC wherein they sell a customer a solution (vs. product) and the lead has not been qualified using AI technology. We find that salespeople using AI for lead generation and qualification exhibit this bias. This aligns with the theoretical reasoning that using AI technology inserts objectivity in decision-making, reducing individual biases. Our analysis further demonstrates that the impact of the selling situation on EOC is contingent upon salesperson-specific factors. Salespeople who are more hunting-oriented are more likely to escalate their commitment to a customer account qualified by AI when selling a customer solution. In other words, they are less likely to consider AI suggestions when deciding to continue selling a customer solution. Moreover, we find that the salesperson's customer portfolio newness (i.e., the ratio of new customers to total customers) reduces the impact of AI and customer solutions on escalation commitment. In other words, when

salespeople have had more recent success in winning customers, they are less likely to incorporate AI in their decision-making when selling customer solutions.

This study offers several contributions. First, through in-depth interviews with B2B salespeople, we demonstrate the presence and magnitude of escalation bias in salespeople's judgment and decision-making. Second, we investigate the effect of the different selling situations on salespeople's escalation bias. Consequently, we add to both the sales and decision-making literature by identifying the selling situation as an essential antecedent. Therefore, we offer a situational approach to the fragmented literature on salespeople's judgment and decision-making (Lam & van der Borgh, 2021). We also provide insight into the use of AI in judgment and decision-making by showcasing how and when it should be used in the selling process. This is especially important because many salespeople are hesitant about adopting AI. Third, we provide important managerial implications by offering managers an understanding that helps them be prepared to handle such bias among their sales team members. Fourth, we theoretically develop a link between selling situations and individual salesperson bias in decision-making and judgment using a new theoretical perspective (vs. prospect theory, or self-justification theory) to explain the EOC.

Salespeople's Escalation Bias and AI Use

New technologies continue to alter various aspects of selling processes and salesperson-customer interactions (Agnihotri, 2021; Syam & Sharma, 2018). AI and similar smart technologies are influencing key business outcomes (e.g., Grewal et al., 2020; de Oliveira Santini et al., 2020; Li et al., 2021) including marketing and sales processes (Davenport et al., 2020). AI can mimic other human intelligence activities like coaching, outcome prediction, and alternative strategy

generation; and, it also offers advice to individuals in a similar way that humans can do (Collins, 1984; Syam & Sharma, 2018; Singh et al., 2019; Luo et al., 2021).

In recent years, practitioners and scholars have recognized the power of integrating AI into CRM tools and processes that have been traditionally utilized by salespeople when making decisions and finalizing customer plans (e.g., Chatterjee et al., 2021; Kumar et al., 2023; Chatterjee et al., 2023). AI CRM tools facilitate knowledge creation (Bag et al., 2021), automated decision-making, and, in turn, improve relationship satisfaction (Chatterjee et al., 2022). AI-empowered methods, such as Naïve Bayes and K-nearest neighbor, can be used to analyze potential customers' online and offline behavior and determine what behaviors have the highest probability of conversion, thus improving lead generation and qualification (Syam & Sharma, 2018). Salespeople can also use AI to create market-sensing abilities (Singh et al., 2019). AI can provide performance feedback and assess past decisions of salespeople to hopefully improve judgment and decision-making (e.g., Liang, 2019; Brockner et al., 1986; Tong et al., 2021). Feedback about the current courses of action (Garland et al., 1990; Staw & Ross, 1978) can be part of the calculus in deciding to commit further resources to a failing project or account. AI-enabled feedback helps especially with a salesperson experiencing escalation biases that commit resources to a failing project in the hope of reversing the results (Staw, 1976; Boulding et al., 1997).

The unique characteristics of salespeople's jobs include not working under close observation of managers and having autonomy concerning which customer accounts to pursue and how much resources to allocate to each account. Previous research finds that when salespeople pursue new customer accounts, they might be subject to EOC (Bonney et al., 2014; Mayberry et al., 2018). Recently, B2B marketing scholars (e.g., Sarangee et al., 2019) have

called attention to the importance of EOC. Despite the emerging interest, sales research has not been very active in exploring EOC (with a few exceptions, e.g., Bonney et al., 2014; Mayberry et al., 2018). The magnitude of the effect of such bias on salespeople's effective resource allocation for selling organizations makes it a very worthy topic for scholarly investigation.

A Qualitative Exploration

As research on salespeople's judgment and decision-making, specifically EOC, is limited, we start our inquiry with two exploratory pre-studies. In doing so, our goal is twofold: (1) to discover the magnitude of the presence of biases (i.e., EOC) in salespeople's judgment and decision-making, and (2) to identify different selling situations that impact a salesperson's EOC. In pre-study I, we conducted in-depth interviews with salespeople to understand how EOC manifests in sales. In pre-study II, we qualitatively explore more than 8,000 sales deals from a unique CRM dataset and examine the sales literature to identify key determinants of selling situations.

Pre-study I: Expert Insights

We conducted 19 interviews with B2B salespeople from a U.S.-based global manufacturer. The firm supplies industrial and agricultural equipment and supports industry with multiple locations in the U.S., Canada, Europe, Asia, Africa, and Latin America. We draw our sample from locations within the U.S. and Canada. We interviewed salespeople with different backgrounds, tenure, and experience levels in two rounds until theoretical saturation was reached (Zeithaml et al., 2020). The interviews lasted between 45 and 60 minutes each. The salespeople selected for interviews represent diverse territories to mitigate bias by culture or environment. Interviews took place over the phone and in two steps. Since the goal of the qualitative study was to learn about the potential presence and severity of EOC in the B2B sales context, not testing

relationships, we did not engage in the formal open coding process. Descriptions in which salespeople exhibited bias in judgment and decision making, received negative feedback as a result, but continued investing resources toward the respective customers, provided a focus for the process. We can look at EOC in sales from two perspectives. First, persistence is a critical success factor for salespeople (Keck et al., 1995; Marshall et al., 2003). For good salespeople, the conventional wisdom is that taking "no" for an answer is not an option. There is a belief among sales practitioners that a good salesperson is one that never stops trying. This perspective can lead to bias in judgment and consequently EOC. As our interviewees delineated during interviews:

> *"I've had that relationship for about three years now…. [the customer] is important to me. Even though he's not buying, he is not putting bread on my table, [the customer] is still important to me because, you know, now and then, you know, maybe once every year or so, [the customer] might buy a [manufacturer's product] or something." (Interview 2)*

> *"If he's a qualified customer that you want to do business with. I don't think you ever give up." (Interview 7)*

The second perspective builds on the concept of resource scarcity. In other words, salespeople have limited time and resources to pursue prospects (Ahearne et al., 2004; Wilson & Hunt, 2011), therefore; they have to recognize the costs (e.g., opportunity costs) associated with over-investment in a specific account. Many salespeople in our sample took the first approach and believed walking away from a customer was a mistake. This confirms that EOC can be a concern in the B2B sales context. For example, a salesperson noted during interviews:

"Of course, some people could say 'no, I'm not ready,' but, you know, maybe six months, or maybe down the road from there. I don't ever try to cut anybody out until you know, we've tried every option we can, every tactic we can to try to get somebody a machine. But I think the biggest thing is just continually fighting to try to get a machine with the customer, you know, fighting it till the very end." (Interview 16)

We also identified how management decisions and organizational strategies affect salespeople to produce unique selling situations. The citizenship behavior literature posits that performance is evaluated based on contribution to organizational goals (MacKenzie et al., 1993). The results of our interviews suggest the same thing:

"[If my manager focuses on creating value and relationship], I think it would encourage me to spend more time with the customer." (Interview 9)

"If the management was to go away from taking care of the customers, then I would imagine... that would be a responsibility that'd probably be lifted from us." (Interview 6)

"If my boss told me to get the most out of each customer that I could, I would upset customers because I would not allocate my time to them correctly. (Interview 5)

The findings of our qualitative exploration revealed that, like other decision-makers, salespeople are vulnerable to EOC bias. Relationship-oriented salespeople value persistence. A persistent mindset is motivated by the idea that even if customers do not buy something today, they might do so in the future. Despite having its merits, persistence can be problematic because

it might cloud salespeople's judgment about the true value of a customer company in its lifetime, leading to inefficient allocation of time and sales budget.

Further, our findings suggest that the perspectives of managers and organizational strategy influence salespeople. This is, in fact, in line with previous literature that suggests strategy spills down to frontline employees' actions and orientations (Sarin et al., 2012; Lam et al., 2010; Ye et al., 2007). The Top Management Team (TMT) holds power over salespeople, and salespeople want to be seen as good organizational citizens in the eyes of their managers. Consequently, if the organization focuses on creating superior value for customers, salespeople will become inclined toward spending more time and resources on each customer. This led us to think about the possibility of different selling situations shaping salespeople's judgment and decision-making. Several interviewees mentioned that if the organization focused on creating and delivering value, their decision-making behavior would differ. Research suggests that sellers offer value to their customers through customer solutions (Macdonald et al., 2016). Therefore, we decided to investigate customer solutions vs. pure products or services as a primary determinant of a selling situation. To validate our assumption, we conduct pre-study II.

Pre-study II: Situational determinants

The popular notion of relationship value (Payne and Holt, 1999) argues that value is created for customers through products, service, delivery, and interactions (Walter et al., 2001; Eggert and Ulaga, 2002). Accordingly, sellers create value for their buyers and create competitive edge and distinction for themselves by offering customer solutions (Macdonald et al., 2016; Tuli et al., 2007). Customer solutions differ from pure product or pure service offerings, in that these solutions design revolves around customer-specific processes and activities instead of deploying 'off-the-shelf' products and offerings, aligning with the contemporary literature (Worm et al.

2017). Moreover, what sets costumer solutions apart from pure product or service offerings is unique characteristics such as customization, outcome-based delivery per pre-defined metrics, and post-sales support (Ulaga and Reinartz 2011; Worm et al. 2017). Research in judgment and decision making in the sales area indicates that customer solutions interact with salespeople's judgment to affect performance (Xu et al. 2022).

To qualify customer solution (vs. pure product or service) as a situational determinant, we worked with a U.S. consulting firm that provided us access to their CRM data from 1997 to 2019. However, project details are mostly available after 2003. The customer companies are primarily manufacturers of varying sizes. The data include detailed descriptions of more than 8000 customers' problems, the sellers' offerings, and the results. The data we worked with is a random sample from the supplier's CRM database. The research team examined the project description to see if they differ in terms of selling situations categorized by solution vs. product.

In line with pre-study I, the archival data shows that biases in salespeople's judgment and decision-making in terms of EOC are present in the B2B sales context. For example, here are a few data points:

> *"After almost 3 years the client still has not completed implementation of ISO 9001:2000. Recommend ending the project." (Project ID: 503)*

> *"Client elected not to use proposed solutions." (after 90 hours of investment from the seller) (Project ID: 196)*

> *"Six Sigma project identified a potential method & technique to improve the hammer process. However, the top management has decided not to put additional resources to the*

project. Solution not carried forward." (after 214 hours of investment from the seller) (Project ID: 643)

Further, the data reveal that categorizing selling situations based on solution and product/service selling seems valid and logical. The researchers validated the situations against the definition of customer solutions in the literature (e.g., Worm et al., 2017). For instance, some of the solutions offered are:

"The goal of this project is to develop a system to track the location of personnel and integrate the system into an augmented reality environment. This project builds off Optical Operation's previous senior design project." (Project ID: 11761)

"The objective is to design a system that will enable re-routing of the trucks for different 'dynamic scenarios' – e.g., unexpected icing on a road segment; malfunction of the equipment on a particular truck (hence, re-route others); re-supplying the fleet." (Project ID: 14578)

On the other hand, the other selling situation emergent in the data comprised of deals in which the salesperson sold or tried to sell "*off the shelf"* products or services. The examples are shown below:

"Seminar - Financial Management for Non-Financial managers." (Project ID: 41)

"ISO 9000 Auditor Training." (Project ID: 97)

providing the customer with materials "covering beam analysis and completing an example using Elastic Beam equations." (Project ID: 7636)

This illustrates that customer solutions vs. pure product/service is a determinant that influences the selling situation and must be considered in the categorization. This is also in line with (Lam & van der Borgh, 2019) who suggest different selling tasks might impact salespeople's judgment and decision-making. The call for research also emphasizes the role of new technologies such as AI in salespeople' judgment and decision-making.

Practitioners also highlight how AI has the potential to transform sales-related activities such as lead generation and engagement with potential customers (Sahota, 2024: Forbes). It can increase productivity, for example, by assessing the potential of leads (Golan, 2019: Forbes). Accordingly, predictions claim that by 2025, cutting-edge AI technologies (e.g., generative AI) will be included as a centralized operation within the go-to-market team of 35% of organizations (Gartner). Despite the increasing rate of adoption and AI's revolutionary capabilities for sales, many selling organizations and salespeople are still hesitant to use this technology (Romanchuk, 2023: HubSpot). This dichotomy encouraged us to look at using AI (vs. not) in the sales process as the second determinant of selling solutions. Below, we review the literature relevant to these two variables.

Using AI (vs. not) and customer solution (vs. product) seem to be two appropriate variables to categorize selling situations and should be considered in combination. accordingly, we were able to identify four selling situations that we expect to have differential effects on salespeople's EOC:

(1) *Product selling without AI (PNOAI):* The salesperson sells off-the-shelf products. Therefore, she does not have to design and deploy customized customer solutions. Also, she does not use AI in the sales process for selling tasks such as lead generation

and lead qualification. As a result, the salesperson has to rely on her judgment and information processing to decide the best course of action (go/no go) for the account.

(2) *Product selling with AI(PAI):* The salesperson sells off-the-shelf products. Therefore, she does not have to design and deploy customized customer solutions. However, the salesperson uses AI in the sales process for different selling tasks such as lead generation and lead qualification. As a result, the salesperson has access to insight generated by AI to make judgments and decisions (go/no go) about the account.

(3) *Solution selling without AI (SNOAI):* The salesperson sells customer solutions which are customized and innovative combinations of products and services that are designed around specific customer needs. Also, she does not use AI in the sales process for different selling tasks such as lead generation and lead qualification. As a result, the salesperson has to rely on her judgment and information processing to decide the best course of action (go/no go) for the account.

(4) *Solution selling with AI (SAI):* The salesperson sells customer solutions which are customized and innovative combinations of products and services that are designed around specific customer needs. As a result, the salesperson has access to insight generated by AI to make judgments and decisions (go/no go) about the account.

We build on conviction narrative theory to develop our hypotheses for the impact of the four selling situations on salespeople's EOC. Before describing the conviction narrative theory, we provide a justification of why this theory might be better at explaining EOC compared to previous theoretical lenses.

Model Development

Conviction Narrative Theory

To explain EOC, literature has used mainly the prospect theory (e.g., Sharp & Slater, 1997; McNamara et al., 2002; Bonney et al., 2014) because there are examples of EOC being present in projects where the decision-makers were not personally responsible for the failure or in games of chance that prior losses cannot be associated with lack of skill or competence (Whyte, 1986). Although many researchers have repeatedly used prospect theory to interpret the EOC bias such application might be somewhat problematic (Bromiley, 2010). According to prospect theory, in gambling or games of chance, prior losses and future gains are independent; consequently, the sunk-cost effect predicted by prospect theory can happen (Garland et al., 1990). In contrast with games of chance, in many marketing-related instances such as R&D, new product development, and B2B sales, there is a time lag between gains and prior expenditures (e.g., sales calls) that could be related to the desired outcome or gain (e.g., winning a sales) because it furthers an individual closer to the goal (Garland et al., 1990). Consequently, while prospect theory has offered valuable insight, the violated assumption of prospect theory might render its inappropriateness, at least in some contexts, for interpreting EOC. Therefore, there is a chance to better explain EOC with a new theoretical lens. In the next section, we introduce the conviction narrative theory framework as a potential alternative for explaining the EOC bias.

Conviction Narrative Theory (CNT) (Tuckett & Nicolic, 2017) proposes a decision-making framework under radical uncertainty. Radical uncertainty portrays a situation in which it is difficult and often impossible to list all the potential outcomes and the probability of them happening for a certain action. Accordingly, when the decision context involves radical uncertainty and is on the long horizon, decision-makers will face approach-avoidance conflicts, which arise when people are simultaneously attracted to some possible outcomes and repelled by others. This emotional conflict essentially emanates from the presence of potential gains and

losses. CNT suggests that decision-makers use narratives to resolve this conflict; in other words, "when outcomes are (objectively) uncertain, actors faced with radical uncertainty draw on (subjectively)-preferred narrative plots of how a planned action will lead to a particular outcome" (Tuckett & Nicolic, 2017, p.504).

Conviction narratives are created from beliefs, information, causal models, and rules of thumb. In this framework, decision-makers mentally time travel into the future (create narratives), and when the approach emotions invoked by the future outcome of an action outweigh its avoidance emotions, decision-makers act on that decision by working backward from that future to plan for such desired future. Approach emotions are those emotions that adjust an individual's behavior towards positive outcomes, and avoidance emotions are those emotions that adjust an individual's behavior away from negative outcomes (Tuckett & Nicolic, 2017). In contrast with what Kahneman (2011) views emotions (as belonging to system 1 and thus biasing deliberation), CNT treats emotions as a critical part of decision-making, impacting and being impacted by cognitive processes. This theory further suggests that once narratives are formed, new information may update them. There are two mental states at this stage: Integrated mental state and Distinct mental state (Tuckett & Taffler, 2008).

In the integrated mental state approach, emotions and avoidance emotions coexist, and information that conflicts with the current narrative is tolerated and taken into consideration; thus, the narrative can be updated based on the new information. In the distinct mental state, however, conflicting information is not tolerated, and there is no room for feelings of doubt, ambivalence, humiliation, and disappointment (Tuckett & Nikolic, 2017). Individuals who enter this state will not update their narrative based on the new information and are likely to escalate their commitment to the Initial resource allocation decision. However, we argue that in the

integrated mental state, too, EOC is likely. In this state, the narrative gets updated according to the new information; however, if the new narrative is equally attractive, the approach emotions will continue to outweigh the avoidance emotions, causing persistence in the current course of action.

CNT is an appropriate lens to decipher EOC for several reasons. First, this theory has been developed and used in the context of asset managers (Chong & Tuckett, 2015), which is quite similar to the B2B sales domain. All the resource allocation decisions salespeople must make about an account are made under radical uncertainty. Further, salespeople, like asset managers, manage a portfolio of customers and have to maximize the performance of their portfolio. Building on their experience, competitive intelligence, human intelligence, referrals, and other rules of thumb, salespeople create narratives and simulate the possible future outcomes of pursuing an account, and if the felt experience is convincing, they will act on their decision. Consequently, we craft our hypotheses using conviction narrative theory. Figure 1 illustrates the conceptual framework of this research.

Selling Situations

Sales organizations' offerings are increasingly driven by a deep understanding of a customer's business model that can be translated into the customer's monetary outcomes (e.g., Terho et al., 2012). Because of the unique position of the salespeople as boundary spanners in the customer-supplier relationship, they are supposed to discover customers' value drivers and offer appropriate solution based on different selling situations ranging from product-based selling to solution-based selling (Hohenschwert & Geiger, 2015).

With solution selling, there are higher degrees of outcome, need, and process uncertainty (as compared to product selling) (Ulaga & Kohli, 2018). This means that salespeople have to

invest more time and other resources to identify customer unique needs, conversion probability, and customer organization's ability and desire in value co-creation. In the early stages, the desired outcome may be merely closing the deal, which means overcoming the outcome uncertainty. However, if the situation unfolds as unsuccessful, we suggest that there are two ways escalation can happen in this context. First, if the salesperson's mental models and beliefs convince him about the identified need and the potential solution and the customer to create value (process and need uncertainty), he might become overconfident in their offering and thus continue investing in pursuing the deal. In other words, approach emotions overcome the avoidance emotions during the felt experience. In this instance, the salesperson is in a distinct mental state in which the narrative does not get updated, leading to EOC.

However, an integrated mental state can lead to an EOC too. New negative information might lead to a change in narrative. But the new narrative might be as appealing as the previous one, leading to EOC. We argue that when selling solutions, salespeople invest a considerable amount of effort and time, and with the emergence of negative information, salespeople's narrative could change from closing the deal to saving their social status as someone willing to go beyond to be seen as a successful solution salesperson. This transfers the mental state from an integrated to a distinct state. This situation causes salespeople to continue investing in that particular account because they believe not doing so leads to an image that is regarded as unfavorable in the organization. Therefore, discontinuing the deal seems cognitively difficult because it is incongruent with the organizational goal. We need to note that in this situation, salespeople make their decisions without the help of AI in any of the decision-making processes. Therefore, to reduce uncertainty to determine the approach-avoidance emotional conflict, they solely rely on human judgment.

H1: Salespeople's escalation of commitment is highest when they are involved with solution selling without utilizing AI in the sales process.

In contrast, as compared to solution selling, there is less uncertainty involved in product selling (Xu et al., 2022). Therefore, we predict that product selling using AI will cause the lowest EOC. If the salesperson is engaged in product selling, customer needs and processes will be most likely homogenous among customers who need the same product. Moreover, the probability of conversion would be similar among such customers.

After the initial decision to pursue an account, salespeople must determine whether the account is worth pursuing further. In such situations, they mentally travel into the future and experience feelings about the specific customer account. According to CNT, one of the ways individuals develop narratives is by using past experiences. Therefore, the knowledge about similar customer conversion probability, needs and processes helps create particularities of the narrative. If the narrative does not invoke positive emotions (i.e., when the situation is very different from previous experiences) about the potential outcome of that account, they will not waste more resources on it. Therefore, the salesperson will move on from one customer to the other customer more quickly. It should be noted that in such situations utilizing AI, would reduce the uncertainty even further.

AI and similar technologies have had a significant impact on key business outcomes (e.g., Grewal et al., 2020; de Oliveira Santini et al., 2020; Li et al., 2021). The industrial revolution brought about by AI and digital technologies has altered the business environment (e.g., Syam & Sharma, 2018). AI has been widely utilized in decision-making (Huang & Rust, 2021). AI-empowered systems have the ability to enhance a firm's capability to understand customers and

recognize and build on opportunities (Brynjolfsson & McAfee, 2017; Mishra & Mukherjee, 2019). In fact, such technologies have advanced B2B organizations in other aspects, such as knowledge management processes (Bag et al., 2021). In recent years, businesses have widely adopted AI systems with predictive analytics and machine learning abilities (Dooley, 2020) to find important customers and predict their value, facilitating effective resource allocation (Rahman et al., 2023). AI can be used for cognitive insight, for example, it can answer questions like which customer is likely to buy (Davenport & Ronanki, 2018). Therefore, since need and process uncertainties are not of high magnitude in product selling, utilizing AI for selling products will reduce uncertainty related to the outcome even further.

H2: Salespeople's escalation of commitment is lowest when they are involved with product selling and utilize AI in the sales process.

For the two remaining situations, we predict the following: The situation "product-selling without utilizing AI in the sales process" is low in uncertainty because of the product selling but at the same time does not benefit from AI. On the one hand, salespeople are involved with product selling which by nature has uncertainty than solution selling because of the homogeneous customer needs and processes, making predicting conversion probability easy. Therefore, salespeople's prior experience in similar situations would resolve the approach-avoidance emotion conflict and develop the conviction narrative. This in turn helps the salesperson to not be locked in the distinct mental state and update the narrative and move on when necessary. On the other hand, they do not use AI systems that have the potential to remove cognitive individual and social biases (Stone et al., 2020). The problem in the B2B sales setting is the radical uncertainty that emanates from the complexity of the problem. AI systems' ability to analyze a large volume of data provides a way to deal with the complexity issue by finding

causal relationships and declaring the right cause of action among various possibilities (Jarrahi, 2018). Therefore, since human behavior does not always lead to the best outcome, AI can inject rationality by working toward the best outcome (or expected best outcome in situations of uncertainty) (Paschen et al., 2019). Emotional conflict arises because of radical uncertainty; therefore, when AI reduces outcome uncertainty, this conflict can be mitigated. For instance, when AI-empowered scenario planning lays out possible futures and outcomes, the radical uncertainty will be reduced significantly.

Inserting AI in the decision-making flow can lead to objectivity and consistency in decisions (Colson, 2019). Davenport & Ronanki (2018) argue that there are three types of AI. Process automation AI, cognitive insight generating AI, and cognitive engagement generating AI. AI that is used for cognitive insight, for example, can answer questions like which customer is likely to buy. AI technologies enable organizations to build on data to make cost-effective predictions (Agrawal et al., 2018). Therefore, in the B2B domain, organizations can deploy AI and machine learning techniques to create customer profiles in order to develop more appropriate strategies (Hofacker et al., 2020). Consequently, AI can be used to evaluate the chances of a selling organization attracting a new customer and to better allocate the time of sales agents according to the potential of leads (Rusthollkarhu et al., 2022). Not utilizing such technologies would not reduce the remaining uncertainty further.

In contrast, in the “solution selling with utilizing AI in the sales process” situation should demonstrate high uncertainty (because of solution selling) that can be mitigated (because of AI). There is high levels of outcome, need and process uncertainty involved because of the complexity and uniqueness of customer solutions. This can cause salespeople to have difficulty interpreting needs and processes because they would need to invest time heavily in the process,

becoming overconfident in their understanding of the situation which could lead to EOC. On the other hand, AI can reduce such bias by inserting objectivity and rationality in the judgment and decision making.

Looking at it from a CNT perspective, B2B sales happen under radical uncertainty, and the problem is not well-defined. Therefore, in the case of a solution selling in which the updated narrative (i.e., not closing the sale but saving face) is equally desirable, salespeople can benefit from AI's objectivity and rationality. Emotional conflict arises because of radical uncertainty; therefore, when AI reduces uncertainty, this conflict can be mitigated. For instance, when AI-empowered scenario planning lays out possible futures and outcomes, the radical uncertainty will be reduced significantly (mitigating outcome uncertainty). Moreover, we argue that objective and realistic evaluation of a lead's potential and the salesperson's chances of winning the account (Rahman et al., 2023; Rustholllkarhu et al., 2022) would prevent the salesperson from entering the distinct mental state in which the narrative does not get updated, or prevent the updated narrative in the integrated mental state from supporting the investment continuation. Further, AI can be used for enhanced need identification and value creation, and for powering augment reality and virtual reality to offer a realistic demonstration of customer solutions (Singh et al., 2019; Syam & Sharma, 2018). These instances would reduce uncertainty associated with need. Also, AI can be utilized to understand customer behavior through time and optimize sales processes (Syam & Sharma, 2018), reducing processes uncertainty. The ability of AI in reducing all types of uncertainties associated with solution selling enable salespeople to have a more detailed knowledge to develop their narrative in more objective and realistic way.

Also, it is true that in situations that are identified by solution selling, salespeople might want to continue chasing an account because of their belief that the outcome is desirable in any

case (winning the sales or being perceived as a good citizen), but if AI classifies an account as not having potential or not possible to be won, investing in creating value for such an account would not be desirable or justifiable and might harm salesperson status in the organization.

The only question remaining would be whether the salespeople would act on AI's recommendation. Research shows that two-thirds of employees believe AI feedback (vs. human) is more unbiased, and they trust AI more than they trust their managers (Bagozzi et al., 2022). Therefore, despite the popular perception, individuals have started to accept AI as a decision-aid tool. Accordingly, we hypothesize:

H3a: Salespeople's escalation of commitment in the "product-selling without utilizing AI in the sales process" situation will be lower (higher) than in "solution-selling without utilizing AI in the sales process" ("product selling with utilizing AI in the sales process") situation.

H3b: Salespeople's escalation of commitment in the "solutions-selling with utilizing AI in the sales process" situation will be lower (higher) than in the "solution-selling without utilizing AI in the sales process" ("product selling with utilizing AI in the sales process") situation.

Boundary Conditions

Individual characteristics can influence people's motivation and actions (Berkmann et al. 2023). We investigate two such factors in this study: salespeople's hunting orientation and their appraisal of the situation. We explore the hunting orientation of a salesperson as a moderator because such orientation can affect the time investment decisions of an agent (Lam et al., 2019). Hunting orientation captures a salesperson's inclination toward pursuing new accounts (vs. developing relationships with existing customer accounts). Both hunting orientation and farming orientation shape a salesperson's customer engagement orientation (Lam et al. 2019). The EOC

bias usually happens when pursuing a new customer account (Bonney et al., 2014); thus, it is usually absent when dealing with strategic and channel partners with whom you have existing relationships (Mayberry et al., 2018). Therefore, it conceptually makes sense to investigate the role of hunting orientation (not farming orientation) because the EOC could be influenced due to the fit between the task of following a new customer (hunting) and the hunting orientation of a salesperson. For the remaining hypotheses, we only focus on situations involving solution selling (i.e., Solution selling with utilizing AI in the sales process and solution selling without utilizing AI in the sales process). In other words, based on what we argued, we believe that EOC is a bigger issue in solution selling than product selling situations. Therefore, we investigate the moderating effects only for these two situations.

Hunting orientation- it can be argued that hunting orientation can increase EOC. Since acquiring a new customer is generally riskier than farming activities (Blattberg & Deighton, 1996), a hunting salesperson is more risk-taking. Moreover, hunting activities are usually framed as a win or a success because they are associated with the number of new accounts that a salesperson converts (DeCarlo & Lam, 2016). Therefore, hunting-oriented salespeople get satisfaction from winning a new customer account. Such individuals who are "achievement striving" are success-driven and work hard toward surmounting difficulties to achieve their goals (Hollenbeck et al., 1989). Moon (2001) argues that such people hate to fail or view themselves as failures; thus, they are more likely to escalate their commitment to a failing course of action to prevent their failure.

On the other hand, when it comes down to the effect of a salesperson hunting orientation in situations wherein the salesperson is selling a solution. We posit that solution selling and hunting orientation (or hunting tasks) are naturally misaligned. While solution selling focuses on

a deep understanding of customers' needs, designing and offering customized solutions, and building relationships and has a long-term focus, the hunting orientation is about chasing new customer accounts and closing the deal, which has a short-term focus. Consequently, the misalignment between the task and orientation will lead to internal tension when allocating time to a new customer (Lam et al., 2019), causing less EOC. This effect would be weakened with the use of AI in the decision-making process. Since AI will help salespeople create value for customers and facilitate activities related to solution selling such as need identification and solution design (Singh et al., 2019; Syam & Sharma, 2018). Therefore, the tension between the two activities (solution selling and hunting new customers) will be reduced. Salespeople will have more capacity to handle the uncertainties associated with hunting new customers (Lam et al., 2019). Therefore, as the tension reduces, hunting-oriented salespeople who are risk-taking and winning-oriented would be more likely to continue investing in a customer account even with the emergence of negative information. Thus:

H4a: A salesperson's escalation of commitment when solution selling without using AI in the sales process will be reduced by the salesperson's hunting orientation.

H4b: A salesperson's escalation of commitment when solution selling with the use of AI in the sales process will be increased by the salesperson's hunting orientation.

Customer portfolio newness - prior success or failure that happened recently in exploration and exploitation efforts can lead to a success trap (March, 1991). In general, project newness has a way of capturing a decision-maker's attention (Bentzen et al., 2011). Success or failure in a previous activity can act as feedback for decision-makers about their performance (Liang, 2019).

EOC literature supports the role of prior success and failure in current resource allocation, indicating that these factors can lead to differential information processing (Staw & Ross, 1978). For example, previous research has found that celebrity CEOs are more likely to escalate their commitment due to overconfidence from prior success (Sinha et al., 2012).

The portfolio newness, which we define as the ratio of new customers, can act as feedback highlighting prior successful performance in winning new customer accounts (e.g., Sabnis et al., 2013). Such feedback could shape the perception of a salesperson about their ability regarding future accounts, making them overconfident. This could lead to underrating the risks associated with those accounts (Jani 2011). Individuals who believe in their abilities (e.g., as a result of previous success) can cope with discouragement and setbacks when receiving negative feedback about the current course of action (McNatt & Judge 2008).

In the context of the present study, when solution selling, salespeople need to get involved in tasks such as developing offerings based on a deep understanding of a customer or interacting with the customer for an effective exchange of information. Having recent success serves as a feedback mechanism reinforcing their perception of their own ability to sell solutions. According to CNT, when a mental time travel to possible futures is judged as favoring "reproductive success," the resulting narrative will be chosen as the course of action (Tuckett & Nikolic, 2017). Therefore, in the face of negative feedback when pursuing a customer, the prior success with solution selling makes the approach emotions continue to outweigh the avoidance emotions, not letting the narrative be updated. Consequently, the salesperson will be in a distinct mental state in which the conflicting information with the dominant narrative is discounted, and doubt and disappointments are not allowed. Therefore, the salesperson continues investing time and resources in the account they are pursuing.

In situations wherein salespeople use AI in the sales process, customer portfolio newness will prevent salespeople from building on AI's objective information and recommendations, situations represented by salespeople's algorithm aversion. This algorithm aversion can be caused due to salespeople's belief that they can achieve near-perfect decision-making (Karlinsky-Shichor & Netzer, 2024). This belief will be intensified if they have experienced recent success in the judgment and decision making identifying the right customers and selling solutions to them, causing them to believe in their own ability more than that of AI. Therefore, customer portfolio newness will reduce the impact that AI has on the solution selling and EOC.

H5a: A salesperson's escalation of commitment when solution selling without using AI in the sales process is increased by the salesperson's customer portfolio newness.

H5b: A salesperson's escalation of commitment when solution selling with the use of AI in the sales process is increased by the salesperson's customer portfolio newness.

Methodology

Data and Design

In line with previous research (e.g., Schmidt & Calantone, 2002; Bonney et al., 2014), we deployed a sequenced-scenario experimental design to test our framework. Experimental design has been widely used to investigate the EOC (e.g., Brockner et al., 1986; Boulding et al., 2017) because other methods, such as surveys due to their reflective essence, might be problematic in this context (Bonney et al., 2014).

We collected the data via online experiments with the help of a marketing research firm that provided us with access to a panel of participants. We tested the relationships under research

using a 2 (solution vs. not solution) × 2 (AI: AI use vs. no AI) between-subject design. The study participants were screened to ensure that only B2B salespeople were eligible for participation. 62.03 % of the participants were male, 51.90% were between 31 and 50, and 75.32% had more than ten years of work experience. Table 3 indicates the descriptive statistics of the valid sample.

Model-free evidence

Before introducing our experimental design, we provide descriptive evidence of differences in salespeople's time allocation in different selling situations. To achieve this goal, we looked at the both secondary (i.e., CRM) and primary (experimental) datasets. The CRM dataset enables us to look at the differences in time allocation decisions between two of the selling situations (PNOAI and SNOAI. The experimental data, on the other hand, provides us with descriptions about time allocations in at two decision periods for the four selling situations (i.e., PNOAI, SNOAI, SAI, and PAI). Figure 2A shows that on average salespeople's time investment is much higher in situations wherein they are *solutions selling without using AI in the sales process* as compared to *selling product without using AI in the sales process.* Figure 2B compares all the four selling situations in two decision periods. It further indicates that while salespeople increase their time investment from time1 to time 2 in *solutions selling without using AI in the sales process,* they reduce their time investments in other situations. It also shows that *solutions selling without using AI in the sales process* includes the highest investment in time 2 (EOC), followed by *solutions selling with using AI in the sales process, selling product without using AI in the sales process, and selling product with using AI in the sales process* respectively. It should be noted that following previous research we conceptualize any time investment in time 2 as EOC (Boulding et al., 2017).

Stimuli

In each group, participants were told that they were a B2B salesperson for PrintB Co. (an imaginary company) that offers business-to-business printing and print management services to customers in different industries. They were also given stimuli indicating the annual strategy of a firm (Solution selling vs. product selling). The participants were also given a translation of these situations and expectations from salespeople (i.e., participants). For example, the solution selling without AI group was told that they were expected to work hard toward creating value for their customers by identifying their needs, offering innovative solutions, and providing post-sales services. The participants in the product selling no AI group, on the other hand, were not told they were selling solutions. The participants in the AI conditions were told that their organization (PrintB Co.) believes that using AI for different selling tasks, such as finding and qualifying leads, would enhance solution-selling. Accordingly, the accounts they have in their portfolio have been found and qualified using AI. After the first round of decisions, participants in all four groups were presented with identical objective data about their progress and were asked to determine how much of their time they would allocate to the particular customer.

After the first round of decisions, participants in both groups were presented with identical objective data about their progress and were asked to determine how much of their time they would allocate to the particular customer.

In the second stage of decisions, which represented approximately one month later, the participants were provided with two pieces of information. The first piece supplies information, in detail, about the focal firm's expectation about the steps that the salespeople (i.e., participants) are supposed to take toward selling solutions (vs. not) and their use of AI (vs. not).

The additional piece of information, which was identical in all conditions, briefed each participant about their progress with the particular customer, with one exception, in the AI

groups, it is expected that objective feedback is generated by AI. The information included objective data about the situation with the customer. The participants were presented with the remaining uncertainties and told that 60% of the purchase committee members were against PrintB Co. (the focal firm), and 40% were in favor of the focal firm. Next, we requested the participants to again indicate their decision with regard to this customer in terms of their resource investments. Similar to Study 1, the EOC was framed as the tendency to invest more time in the second decision.

Measures

Our dependent variable was a continuous measure in line with Bonney et al. (2014) captured based on the question, "If you decide to continue, please indicate how much of your SELLING TIME in the next 3-4 weeks you would allocate to pursuing a deal with this particular customer, represented by Jack Smith and discussed above (0% of my selling time — 100% of my selling time). Move the slider below to represent the amount of selling time you would allocate. Further to the left represents less selling time, while further to the right represents more selling time. You must move the slider to have the question register your answer."

Our independent variable Solution was manipulated to indicate four selling situations (*PNOAI, PAI, SNOAI, SAI*) and their translation for salespeople's tasks. It is important to highlight that the information (i.e., feedback) that the participants received about the chances of winning the customer account was objective and only indicated the number of people on the committee who were against and in favor of purchasing from the focal firm. In line with previous research (e.g., Schmidt & Calantone, 2002; Bonney et al., 2014), we refrained from providing "positive" or "negative" feedback to avoid issues associated with subjective interpretation.

The answer to the question whether some salespeople are more capable of handling EOC than others, we include two salesperson-specific variables as moderators in our framework: salesperson's hunting orientation and customer portfolio newness. The participants in the experiments were asked to fill out a questionnaire after they participated in the experiments. We put the survey questions at the end of the experiments to ensure that the questions do not bias the results of the experiments.

We measured the hunting orientation was captured with a four-item measure adopted from (DeCarlo & Lam 2016), by questions like "To 'hunt' for a new sales opportunity is the most enjoyable part of the job.", "I am at my best when I engage a new prospect that I have never met before." This variable was measured with the following 7-point Likert scales anchored from "strongly disagree" to "strongly agree." We measured customer portfolio newness by asking the participants to indicate their total number of customers and the number of customers acquired in the past 6 months.

In addition to the dependent and independent variables discussed, we also included several control variables in our study. We controlled participants' age, gender, work experience, the amount of sales training received, customer engagement orientation, familiarity with AI, current sales job context, and time investment in decision period 1. We measured farming orientation using a four-item measure from (DeCarlo & Lam 2016), and we captured AI familiarity using a seven-item measure from (Rahman et al., 2023; Chatterjee et al., 2021).

Analysis and Results

An ANOVA was carried out with EOC as the dependent variable, solution-selling (0 = Nonsolution selling, 1 = Solution selling), and AI (0 = absent, 1 = present) as fixed factors. The results of the analysis show a significant main effect of solution-selling ($F = 32.89$, $p<0.01$) and a

significant interaction effect between solution-selling and AI (F= 5.02, p=0.02). Further regression analysis shows (Table 3) that the coefficient of solution selling is positive and significant ($\beta = 0.35$, $p<0.01$), and the coefficient of the interaction term is negative and significant ($\beta = -0.25$, $p=0.02$).

A simple slope analysis (Table 4) shows the margins of the four selling scenarios. As expected, salespeople's EOC was highest in the context of *selling solution without using AI in the sales process* situation. This supports H1. Our results further suggest that salespeople are less (more) likely to escalate their commitment when involved in *solutions selling with using AI in the sales process* situation as compared to *selling solution without using AI in the sales process* (*product selling with utilizing AI in the sales process*) situation. This finding provides support for H3b. Surprisingly, in contrast with what hypothesized in H2, our findings indicate that EOC is lowest when salespeople are involved with *product selling without utilizing AI in the sales process* situation. Further, the results show that EOC in the "product-selling without utilizing AI in the sales process" situation will be lower (lower) than in *solution selling without utilizing AI in the sales process* (*product selling with utilizing AI in the sales process*) situation. These counterintuitive findings reject H2 and partially support H3a. A theoretical explanation for these interesting findings can be related to the types of uncertainty associated with product selling. As argued earlier, in the product selling situations the most pronounced type of uncertainty is outcome uncertainty that is associated with the conversion probability of the customer. Process and need uncertainties are not huge concerns due to the homogeneous customer base. In such situation, AI would be *only* used for activities such as assessing the probability of lead conversion to reduce outcome uncertainty, *not* other activities. Therefore, if AI suggests that a lead is of high potential, salespeople will be more likely to develop an approach emotion toward

that lead, enter the distinct mental state and build on the information generated by AI to build their conviction narrative, leading to EOC. Consequently, it can be argued that partial use of AI or not using AI for handling other types of uncertainties in the sales process could have unfavorable results.

We test the boundary conditions of customer portfolio newness and salesperson hunting orientation (H4a, b–H5a, b) using the following equation:

$$EOC_i = \beta_0 + \beta_1 Solution + \beta_2 AI_j + \beta_3 Hunt_j + \beta_4 New_j + \beta_5 Solution \times AI_j + \beta_6 Solution \times Hunt_j + \beta_7 Solution \times New_j + \beta_8 AI \times Hunt_j + \beta_9 AI \times New_j + \beta_{10} Solution \times AI_j \times Hunt_j + \beta_{11} Solution \times AI_j \times New_j + \beta_{12} Age_j + \beta_{13} Gender_j + \beta_{14} Experience_j + \beta_{15} Training_j + \beta_{16} Tenure_j + \beta_{17} AI\ Familiar_j + \beta_{18} Farm_j + \emptyset_i$$

Where:

j = Salesperson Level

β = Parameter to be estimated

ø = Model Residual

In line with previous research, we used SEM to build on its advantages in analyzing the experimental data (Pounders et al., 2015). Confirmatory factor analysis (CFA) indicates acceptable results for the measurement model. The model has $\chi^2 = 571.38$ with 265 degrees of freedom. This results in a comparative fit index (CFI) of 0.93, Tucker-Lewis index (TLI) of 0.92, and root mean square error of approximation (RMSEA) of 0.06. All the standardized factor loading estimates were higher than 0.58 with average variance extracted (AVE) ranging from 0.55 to 0.79, and construct reliability estimates ranging from 0.82 to 0.96. In sum, the results indicated a good model fit and satisfactory convergent and discriminant validity (Hair et al., 2010).

Table 5 displays the structural coefficient estimates. H4a proposes a salesperson's EOC when solution selling without using AI in the sales process will be reduced by the salesperson's hunting orientation. The negative coefficient $\gamma = -0.49$ supports this hypothesis ($p<0.01$). H4b, on the other hand, predicts that a salesperson's EOC when solution selling with the use of AI in the sales process will be increased by the salesperson's hunting orientation. The results of the three-way interaction provide support for this hypothesis as well ($\gamma = 0.32$, $p<0.01$). H5 investigates the moderating impact of customer portfolio newness on the relationship of solution selling and EOC with and without using AI in the sales process. H5a is rejected because we did not find support for the moderating impact of customer portfolio newness on solution selling when a salesperson does not use AI ($\gamma = -0.04$, $p=0.43$). We attribute these results to salespeople's resource scarcity both in terms of cognitive resources as well as other (time, sales budget, etc.) resources. Previous research shows that the newness of a project increases the attention that a decision-maker gives to that specific project (Bentzen et al., 2011). Therefore, when a salesperson has many new accounts, his attention and other resources are spent on developing those accounts through activities such as post-purchase services, reducing the available resources to allocate to accounts that are not showing positive progress. In contrast, we find evidence of this effect when AI is used ($\gamma = 0.06$, $p=0.08$). This finding supports H5b.

Discussion

Overall, we have four primary objectives in this research: (1) to highlight that escalation bias in judgment and decision-making is an issue for professional salespeople, (2) to indicate that different selling situations would lead to different levels of this bias, (3) to understand the salesperson-specific variables that impact this bias, (4), and what can sales managers do to prevent the salesperson from falling into the EOC trap.

Based on two qualitative pre-studies, we first identify the existence of biases in salespeople's judgment and then four different selling situations. Specifically, we categorize selling situations based on solution (vs. product) selling and use (vs. not) of AI. Building on experimental data, we find that salespeople behave differently in allocating their resources effectively in different selling situations. We propose the reason for this behavior lies in the salesperson's understanding and management of different kinds of uncertainty. The high levels of uncertainty associated with solution selling as compared to product selling cause salespeople to enter a distinct mental state in which conflicting information is not allowed thus the narrative does not get updated. We provide evidence for the benefits and harms of AI utilization in judgment and decision-making. Using AI can be beneficial especially in the case of solution selling. However, it is important to build on AI recommendations in every step of the sales process. In the case of product selling, AI can lead to more EOC if only used for assessing the conversion probabilities not the rest of the selling process.

Theoretical Implication

This study offers several implications for theory. First, our findings contribute to the ongoing scholarly conversation concerning salespeople's cognitive biases when making decisions about resource allocations (e.g., Mayberry et al., 2018, Bonney et al., 2014). Consequently, we hope this study serves motivates further scholarly attempts to explore this phenomenon further in the sales context.

Further, previous research has investigated unproductive selling behaviors (Payne et al., 1992; Berkmann et al, 2023). However, there is limited research on biases in judgment and decision-making and ineffective selling behavior. Given the uniqueness of salespeople's decision making, our research extends the knowledge in this field by indicating the significance of selling

situations in how salespeople evaluate opportunities. Therefore, the impact of selling situations offers an important missing piece in the salespeople's judgment and decision-making research.

Our results also highlight the often-missed conflict between salespeople's persistence and ineffective resource allocation. Persistence is an important success factor for salespeople (Keck et al., 1995; Marshall et al., 2003) and a revered trait. Salespeople are expected to pursue new opportunities with unwavering determination. It is believed that a good salesperson should not take a no for an answer. This research highlights the dark sides of such a perspective and offers a more complete picture.

Moreover, there is a dichotomy about how salespeople and selling organizations view AI technologies. While some organizations and their salespeople are increasingly adopting AI in their decision-making process, there is another group that is still hesitant about its potential. Our results show that AI can be both beneficial and harmful depending on how and when salespeople use it. Our results suggest that using AI in selling tasks, could enable objective information processing and would reduce the uncertainty associated with salespeople's decisions. Therefore, it can reduce the EOC problems. However, whether the effect of AI is favorable or not depends on whether a salesperson is selling solutions or products. Thus, our research adds to the technology adoption literature (e.g., Homburg et al., 2010; Blut & Wang, 2020; Rapp et al., 2013).

Managerial Implications

Many selling organizations have adopted a territory management perspective for managing salespeople. With a territory management perspective, salespeople independently make decisions about their resources and customer accounts with minimal managerial supervision. Sales managers believe that given the right incentive, salespeople will make decisions consistent with

organizational strategies and act to maximize organizational returns. However, this is not always the case. When a failure happens, many attribute the issues to the agency problem, lack of persistence, or not working hard.

Although persistence is an admired trait for salespeople, managers need to know that this behavior does not always lead to favorable results; thus, like other things, too much of a good thing can be harmful here. The paradox here emanates from the fact that a lack of persistence could lead to opportunity loss, and too much persistence might give rise to an EOC, none of which are desirable. An improper focus on persistence is problematic because if salespeople do not work hard on chasing customers, or do not follow up on desirable leads, their quota and, in turn, the sales organization goals, will not be reached. Lost opportunities and competition would be side effects of such a situation. On the other hand, if a salesperson becomes too invested in a specific account due to resource scarcity, precious resources may be wasted (e.g., time) that could have been otherwise spent on developing relationships with customers who can generate value for the focal firm. This, again, could lead to lost opportunity, dissatisfied customers, and a waste of good resources. A potential solution to this paradox can be taking an adaptive perspective. Just like how we expect salespeople to adapt their behavior based on the potential of customers, sales managers must adapt their expectations from salespeople based on different selling situations. Our findings first suggest that EOC is a severe issue in the B2B sales domain and that solution selling leads to more EOC as compared to product selling. Understanding the root cause of this problem could help managers address this problem more effectively. In fact, if managers ascribe the issue to the agency problem, they will probably shift their focus to designing different control mechanisms. However, such monitoring is not free of unintended effects (please see McNamara et al., 2002). Consequently, managers need to understand the

underlying reason for this to address the issue in a way that minimizes the costs. Understanding that different selling situations can impact salespeople's judgment and decision-making helps with this goal. Therefore, managers must know that when salespeople are in varying selling situations, they should ensure they receive the varying types and levels of support needed for efficient resource decisions.

For example, when the focal firm focuses on offering customized solutions, managers need to identify the potential side effects that such seemingly positive activities might have for their salespeople and provide them with directions. Salespeople are often motivated to improve their social status in the selling organization as evidenced by their participation in recognition incentive programs. Salespeople's desire to receive recognition and achieve high social status within an organization could be problematic, especially when the organizational focus on solution selling, aligns with salespeople's tendencies (customer orientation), making investments in customer value a perceived win-win situation.

This study examines the degree of AI used in selling tasks. Although many salespeople might not be willing to adopt AI technologies for reasons such as a lack of self-efficacy or fear of being replaced by such technologies, our results indicate that using AI technology for selling tasks can be beneficial in reducing escalation bias. Understanding this could help salespeople overcome the fear of being replaced by AI. Of course, inevitably, many roles are being or will be replaced by technology (e.g., automation); however, recognizing the enabling and augmenting role of digital technologies such as AI can help with resistance to adopting them. More importantly, salespeople and managers should also understand how and when AI might harm performance. For instance, our results show that when salespeople sell products with reliance on AI in the sales process, EOC becomes more likely as salespeople focus on using AI in only some

of the selling tasks (assessing conversion probability). Managers can design and deliver effective training to increase salespeople's knowledge about the helpfulness of AI technologies and how taking a hybrid approach (human intelligence plus artificial intelligence) in decision-making is a must for staying competitive. A hybrid approach reassures salespeople of their critical role for the company while also showcasing the abilities of AI in reducing human error, which in turn, could have monetary and stature implications.

Another way that managers can mitigate the EOC for solution-selling salespeople is to encourage a hunting orientation. In general, many salespeople tend to prefer farming activities over hunting activities because they are less risky. However, as our results suggest, when the salespeople are selling solutions, managers can fight the EOC and protect their salespeople by designing incentive programs that reward hunting activities. Rewarding hunting becomes critical to dynamic incentive programs. In contrast, managers should be cognizant of hunting-oriented salespeople who use AI to sell solutions. In such cases, they should reward farming orientation to reduce the EOC. Therefore, managers should pay attention to updating their incentive programs following a strategic change to ensure the achievement of the goals with minimum unintended side effects.

Moreover, our results suggest that managers pay close attention to their salespeople's portfolio balance. Especially when salespeople are using AI to sell solutions, a high ratio of new customers might lead them into a success trap where overconfidence might lead to algorithm aversion and ignoring AI's recommendations. Therefore, in contrast to the belief that salespeople performing well in winning new accounts do not need much managerial intervention, our research suggests that managers need to check in with successful hunters to ensure they are investing their resources effectively.

Limitations And Future Research

As a first step toward understanding the interplay involving selling situations, AI, and a salesperson's EOC, the present study has some limitations that open opportunities for future research. For instance, we build on arguments based on the role of narratives and emotions but do not empirically test their influence. Therefore, future studies can test different mechanisms through which EOC is impacted by strategic emphasis. In other words, future research can test whether salespeople appraise the situation differently under various organizational strategies.

Further, our data are limited to two decision periods approximately a month apart. Thus, we did not test the decisions of the salespeople in a longer time frame. Time since approaching the customer might play a role here. Nevertheless, our design was in line with previous works on the EOC (e.g., Boulding et al. 2017; Biyalogorsky et al. 2006), and our interviews also showed that there are instances wherein salespeople pursue customers for months without any returns. This is while salespeople are expected to protect one of their most scarce and important resources- time. However, in cases where escalation happens, it would be interesting to learn whether their decisions unfold differently after multiple (i.e., more than two) rounds of decisions.

Finally, the present work tested only two salesperson-specific factors. As argued throughout the manuscript, individuals create their narratives according to situations in their environment. Therefore, different factors can play boundary roles in the relationships discussed in this study. Future research could hypothesize and test more moderating factors that provide boundary conditions in these relationships.

There is limited research, with a few exceptions (Mayberry et al., 2018; Bonney et al., 2014), that has investigated salespeople's biases in decision-making. Especially since many organizations embrace a territory manager approach in which salespeople have autonomy in

selecting their sales strategy (DeCarlo & Lam, 2016), it is very important to identify and find solutions for their cognitive biases. This study is a scholarly attempt to respond to the call for research on salespeople's judgment and decision-making (Lam & van der Borgh, 2021).

Finally, we theoretically argue indicate that prospect theory might not be the best theoretical angle to look at the escalation bias in the B2B sales context. We enumerate the problems with this theory and offer a new theoretical perspective- conviction narrative theory- to examine this issue. This theory incorporates the roles of emotions and narratives in decision-making under radical uncertainty. Conviction narrative theory considers these important factors, and as we argued earlier, emotions significantly impact decisions. Thus, this study opens new avenues of research by borrowing a new theoretical perspective from psychological economics that offers new theoretical insights into the phenomenon of EOC.

References

Agnihotri, R. (2021). From Sales Force Automation to Digital Transformation: How Social Media, Social CRM, And Artificial Intelligence Technologies Are Influencing The Sales Process. In *A Research Agenda for Sales* (pp. 21–47). Edward Elgar Publishing.

Agnihotri, R., Rapp, A., Kothandaraman, P., & Singh, R. K. (2012). An emotion-based model of salesperson ethical behaviors. *Journal of Business Ethics*, *109*, 243-257.

Agrawal, A., Gans, J., & Goldfarb, A. (2018). *Prediction Machines: The Simple Economics of Artificial Intelligence*. Harvard Business Press.

Ahearne, M., Lam, S. K., Mathieu, J. E., & Bolander, W. (2010). Why are some salespeople better at adapting to organizational change?. *Journal of Marketing*, *74*(3), 65-79.

Ahearne, M., Srinivasan, N., & Weinstein, L. (2004). Effect Of Technology on Sales Performance: Progressing From Technology Acceptance To Technology Usage And Consequence. *Journal of Personal Selling & Sales Management*, *24*(4), 297-310.

Bag, S., Gupta, S., Kumar, A., & Sivarajah, U. (2021). An integrated artificial intelligence framework for knowledge creation and B2B marketing rational decision-making for improving firm performance. *Industrial Marketing Management*, *92*, 178–189.

Bagozzi, R. P., Brady, M. K., & Huang, M.-H. (2022). AI Service and Emotion. *Journal of Service Research*, *25*(4), 499–504.

Bentzen, E., Christiansen, J. K., & Varnes, C. J. (2011). What attracts decision makers' attention? Managerial allocation of time at product development portfolio meetings. *Management Decision*, *49*(3), 330–349.

Berkmann, M., Eisenbeiss, M., Reinartz, W., & Schauerte, N. (2023). Leveraging B2B field service technicians as a "second sales force": How service situations affect selling activity and success. *Journal of the Academy of Marketing Science*, 1-26.

Biyalogorsky, E., Boulding, W., & Staelin, R. (2006). Stuck in the Past: Why Managers Persist with New Product Failures. *Journal of Marketing*, *70*(2), 108–121.

Blattberg, R. C., & Deighton, J. (1996). Manage marketing by the customer equity test. *Harvard Business Review*, *74*(4), 136-144.

Blut, M., & Wang, C. (2020). Technology readiness: a meta-analysis of conceptualizations of the construct and its impact on technology usage. *Journal of the Academy of Marketing Science*, *48*, 649-669.

Bonney, L., Plouffe, C. R., & Wolter, J. (2014). "I think I can…I think I can": The impact of perceived selling efficacy and deal disclosure on salesperson escalation of commitment. *Industrial Marketing Management*, *43*(5), 826–839.

Boulding, W., Guha, A., & Staelin, R. (2017). Do We Really Need to Change the Decision Maker? Counterintuitive Escalation of Commitment Results in Real Options Contexts. *Management Science*, *63*(10), 3459–3472.

Boulding, W., Morgan, R., & Staelin, R. (1997). Pulling the Plug to Stop the New Product Drain. *Journal of Marketing Research*, *4*(1), 164–176.

Brockner, J., Houser, R., Birnbaum, G., Lloyd, K., Deitcher, J., Nathanson, S., & Rubin, J. Z. (1986). Escalation of Commitment to an Ineffective Course of Action: The Effect of Feedback Having Negative Implications for Self-Identity. *Administrative Science Quarterly*, *31*(1), 109-126.

Bromiley, P. (2010). Looking At Prospect Theory. *Strategic Management Journal*, *31*(12), 1357–1370.

Brynjolfsson, E., & Mcafee, A. N. D. R. E. W. (2017). Artificial Intelligence, For Real. *Harvard Business Review*, *1*, 1-31.

Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2022). AI and digitalization in relationship management: Impact of adopting AI-embedded CRM system. *Journal of Business Research*, *150*, 437–450.

Chatterjee, S., Rana, N. P., Khorana, S., Mikalef, P., & Sharma, A. (2023). Assessing organizational users' intentions and behavior to AI integrated CRM systems: A meta-UTAUT approach. *Information Systems Frontiers*, *25*(4), 1299-1313.

Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). The effect of AI-based CRM on organization performance and competitive advantage: An empirical analysis in the B2B context. *Industrial Marketing Management*, *97*, 205–219.

Chong, K., & Tuckett, D. (2015). Constructing conviction through action and narrative: how money managers manage uncertainty and the consequence for financial market functioning. *Socio-Economic Review*, *13*(2), 309-330.

Collins, R. H. (1984). Artificial Intelligence in Personal Selling. *The Journal of Personal Selling and Sales Management*, *4*(1), 58–66.

Colson, E. (2019). What AI-Driven Decision Making Looks Like. *Harvard Business Review*.

Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, *48*, 24-42.

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, *96*(1), 108-116.

DeCarlo, T. E., & Lam, S. K. (2016). Identifying effective hunters and farmers in the salesforce: a dispositional–situational framework. *Journal of the Academy of Marketing Science*, *44*(4), 415–439.

de Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, *48*, 1211-1228.

Dooley, J (2020). Five examples that demonstrate the value of AI for B2B marketers. Available at https://www.clickz.com/five-examples-that-demonstrate-the-value-of-ai-for-b2b-marketers/261827/.

Eggert, A., & Ulaga, W. (2002). Customer perceived value: A substitute for satisfaction in business markets? *Journal of Business & Industrial Marketing*, *17*(2/3), 107–118.

Fotheringham, D., & Wiles, M. A. (2023). The effect of implementing chatbot customer service on stock returns: An event study analysis. *Journal of the Academy of Marketing Science*, *51*(4), 802-822.

Garland, H., Sandefur, C. A., & Rogers, A. C. (1990). De-escalation of commitment in oil exploration: When sunk costs and negative feedback coincide. *Journal of Applied Psychology*, *75*(6), 721.

Gartner. AI in Sales: Boost Revenue and Close More Deals. Accessed: https://www.gartner.com/en/sales/topics/sales-ai#:~:text=Probably%20the%20biggest%20obstacle%20to,and%20between%20seller%20and%20buyer.

Golan, I., (2019). The Revolution of AI in Sales: Why and How to Adopt it in Your Organization. *Forbes*. https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2019/10/07/the-revolution-of-ai-in-sales-why-and-how-to-adopt-it-in-your-organization/?sh=5da6c6922c01

Grewal, D., Hulland, J., Kopalle, P. K., & Karahanna, E. (2020). The future of technology and marketing: A multidisciplinary perspective. *Journal of the Academy of Marketing Science*, *48*, 1-8.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E., (2010). Multivariate data analysis 7th Edition. Upper Saddle River, NJ: Prentice Hall.

Hall, Z. R., Ahearne, M., & Sujan, H. (2015). The importance of starting right: the influence of accurate intuition on performance in salesperson–customer interactions. *Journal of Marketing*, *79*(3), 91-109.

Hofacker, C., Golgeci, I., Pillai, K. G., & Gligor, D. M. (2020). Digital Marketing and Business-To-Business Relationships: A Close Look at The Interface and A Roadmap for The Future. *European Journal of Marketing*, *54*(6), 1161-1179.

Hohenschwert, L., & Geiger, S. (2015). Interpersonal Influence Strategies in Complex B2B Sales and The Socio-Cognitive Construction of Relationship Value. *Industrial Marketing Management*, *49*, 139–150.

Hollenbeck, J. R., Williams, C. R., & Klein, H. J. (1989). An Empirical Examination of The Antecedents of Commitment to Difficult Goals. *Journal Of Applied Psychology*, *74*(1), 18.

Homburg, C., Wieseke, J., & Bornemann, T. (2009). Implementing the marketing concept at the employee-customer interface: the role of customer need knowledge. *Journal of Marketing*, *73*(4), 64-81.

Homburg, C., Wieseke, J., & Kuehnl, C. (2010). Social influence on salespeople's adoption of sales technology: a multilevel analysis. *Journal of the Academy of Marketing Science*, *38*, 159-168.

Huang, M.-H., & Rust, R. T. (2018). Artificial Intelligence in Service. *Journal of Service Research*, *21*(2), 155–172.

Huang, M.-H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, *49*(1), 30–50.

Jani, A. (2011). Escalation Of Commitment in Troubled IT Projects: Influence of Project Risk Factors and Self-Efficacy on The Perception of Risk and The Commitment to A Failing Project. *International Journal of Project Management*, *29*(7), 934-945.

Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons*, *61*(4), 577–586.

Kahneman, D. (2011). Thinking Fast and Slow. London, UK: Allen Lane.

Karlinsky-Shichor, Y., & Netzer, O. (2024). Automating the b2b salesperson pricing decisions: A human-machine hybrid approach. *Marketing Science*, *43*(1), 138-157.

Keck, K. L., Leigh, T. W., & Lollar, J. G. (1995). Critical Success Factors in Captive, Multi-Line Insurance Agency Sales. *Journal of Personal Selling & Sales Management*, *15*(1), 17-33.

Kumar, P., Sharma, S. K., & Dutot, V. (2023). Artificial intelligence (AI)-enabled CRM capability in healthcare: The impact on service innovation. *International Journal of Information Management*, *69*, 102598.

Lam, S. K., DeCarlo, T. E., & Sharma, A. (2019). Salesperson ambidexterity in customer engagement: do customer base characteristics matter? *Journal of the Academy of Marketing Science*, *47*(4), 659–680.

Lam, S. K., Kraus, F., & Ahearne, M. (2010). The diffusion of market orientation throughout the organization: A social learning theory perspective. *Journal of Marketing*, *74*(5), 61-79.

Lam, S. K., & van der Borgh, M. (2021). On salesperson judgment and decision making. *Journal of the Academy of Marketing Science*, *49*(5), 855–863.

Li, F., Larimo, J., & Leonidou, L. C. (2021). Social media marketing strategy: definition, conceptualization, taxonomy, validation, and future agenda. *Journal of the Academy of Marketing Science*, *49*, 51-70.

Liang, B. (2019). The effects of self-efficacy, process feedback, and task complexity on escalation of commitment in new product development. *Journal of Business & Industrial Marketing*, *34*(8), 1641–1653.

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 & Marketing*, *31*(6), 387-403.

Luo, X., Qin, M. S., Fang, Z., & Qu, Z. (2021). Artificial intelligence coaches for sales agents: Caveats and solutions. *Journal of Marketing*, *85*(2), 14-32.

Macdonald, E. K., Kleinaltenkamp, M., & Wilson, H. N. (2016). How Business Customers Judge Solutions: Solution Quality and Value in Use. *Journal of Marketing*, *80*(3), 96-120.

MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1993). The impact of organizational citizenship behavior on evaluations of salesperson performance. *Journal of Marketing*, *57*(1), 70-80.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*(1), 71-87.

Marshall, G. W., Goebel, D. J., & Moncrief, W. C. (2003). Hiring For Success at The Buyer–Seller Interface. *Journal of Business Research*, *56*(4), 247-255.

Mayberry, R., Boles, J. S., & Donthu, N. (2018). An escalation of commitment perspective on allocation-of-effort decisions in professional selling. *Journal of the Academy of Marketing Science*, *46*(5), 879–894.

McFarland, R. G., Challagalla, G. N., & Shervani, T. A. (2006). Influence tactics for effective adaptive selling. *Journal of Marketing*, *70*(4), 103-117.

McNamara, G., Moon, H., & Bromiley, P. (2002). Banking On Commitment: Intended and Unintended Consequences of An Organization's Attempt To Attenuate Escalation Of Commitment. *Academy of Management Journal*, *45*(2), 443-452.

McNatt, D. B., & Judge, T. A. (2008). Self-Efficacy Intervention, Job Attitudes, And Turnover: A Field Experiment with Employees In Role Transition. *Human Relations*, *61*(6), 783-810.

Mishra, N., & Mukherjee, S. (2019). Effect of artificial intelligence on customer relationship management of Amazon in Bangalore. *International Journal of Management*, 10(4), 168-172.

Moon, H. (2001). The two faces of conscientiousness: duty and achievement striving in escalation of commitment dilemmas. *Journal of Applied Psychology*, *86*(3), 533-540.

Mullins, R., Agnihotri, R., & Hall, Z. (2020). The ambidextrous sales force: aligning salesperson polychronicity and selling contexts for sales-service behaviors and customer value. *Journal of Service Research*, *23*(1), 33-52.

Mullins, R. R., Ahearne, M., Lam, S. K., Hall, Z. R., & Boichuk, J. P. (2014). Know your customer: How salesperson perceptions of customer relationship quality form and influence account profitability. *Journal of Marketing*, *78*(6), 38-58.

Paschen, J., Kietzmann, J., & Kietzmann, T. C. (2019). Artificial Intelligence (AI) And Its Implications for Market Knowledge in B2B Marketing. *Journal of Business & Industrial Marketing*, *34*(7), 1410-1419.

Payne, J. W., Bettman, J. R., & Johnson, E. J. (1992). Behavioral decision research: A constructive processing perspective. *Annual Review of Psychology*, *43*(1), 87-131.

Payne, A., & Holt, S. (1999). A Review of The 'Value' Literature and Implications for Relationship Marketing. *Australasian Marketing Journal*, *7*(1), 41-51.

Pounders, K. R., Babin, B. J., & Close, A. G. (2015). All the same to me: outcomes of aesthetic labor performed by frontline service providers. *Journal of the Academy of Marketing Science*, *43*, 670-693.

Rahman, M. S., Bag, S., Gupta, S., & Sivarajah, U. (2023). Technology Readiness of B2B Firms And AI-Based Customer Relationship Management Capability for Enhancing Social Sustainability Performance. *Journal of Business Research*, *156*, 113525.

Rapp, A., Beitelspacher, L. S., Grewal, D., & Hughes, D. E. (2013). Understanding social media effects across seller, retailer, and consumer interactions. *Journal of the Academy of Marketing Science*, *41*, 547-566.

Romanchuk, J., (2023). 8 Concerns Sales People Have about AI & How Leadership Can Address Them [New Data + Tips]. *HubSpot*. Accessed: https://blog.hubspot.com/sales/ai-concerns-in-sales

Rusthollkarhu, S., Toukola, S., Aarikka-Stenroos, L., & Mahlamäki, T. (2022). Managing B2B customer journeys in the digital era: Four management activities with artificial intelligence-empowered tools. *Industrial Marketing Management*, *104*, 241–257.

Sabnis, G., Chatterjee, S. C., Grewal, R., & Lilien, G. L. (2013). The Sales Lead Black Hole: On Sales Reps' Follow-Up of Marketing Leads. *Journal of Marketing*, *77*(1), 52–67.

Sahota, N., (2014). The AI Revolution in Lead Generation: Navigating New Business Frontiers. *Forbes*. https://www.forbes.com/sites/neilsahota/2024/01/17/the-ai-revolution-in-lead-generationnavigating-new-business-frontiers/?sh=2bbd2583312e

Sarin, S., Challagalla, G., & Kohli, A. K. (2012). Implementing Changes in Marketing Strategy: The Role of Perceived Outcome-and Process-Oriented Supervisory Actions. *Journal of Marketing Research*, *49*(4), 564–580.

Sarangee, K. R., Schmidt, J. B., & Calantone, R. J. (2019). Anticipated Regret and Escalation of Commitment to Failing, New Product Development Projects in Business Markets. *Industrial Marketing Management*, *76*, 157-168.

Schmidt, J. B., & Calantone, R. J. (2002). Escalation of Commitment during New Product Development. *Journal of the Academy of Marketing Science*, *30*(2), 103–118.

Sharp, D. J., & Salter, S. B. (1997). Project escalation and sunk costs: A test of the international generalizability of agency and prospect theories. *Journal of International Business Studies*, *28*, 101-121.

Singh, J., Flaherty, K., Sohi, R. S., Deeter-Schmelz, D., Habel, J., & Le Meunier-FitzHugh, K. (2019). Sales Profession and Professionals in the Age of Digitization and Artificial Technologies: Concepts, Priorities, and Questions. *Journal of Personal Selling & Sales Management*, *39*(1), 2–22.

Sinha, P. N., Inkson, K., & Barker, J. R. (2012). Committed To A Failing Strategy: Celebrity CEO, Intermediaries, Media And Stakeholders In A Co-Created Drama. *Organization Studies*, *33*(2), 223-245.

Staw, B. M. (1976). Knee-deep in the big muddy: A Study of Escalating Commitment To A Chosen Course Of Action. *Organizational Behavior and Human Performance*, 16(1), 27-44.

Staw, B. M., & Ross, J. (1978). Commitment to a Policy Decision: A Multi-Theoretical Perspective. *Administrative Science Quarterly*, *23*(1), 40-64.

Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., et al. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line*, *33*(2), 183–200.

Syam, N., & Sharma, A. (2018). Waiting For a Sales Renaissance in The Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice. *Industrial Marketing Management*, *69*, 135–146.

Terho, H., Haas, A., Eggert, A., & Ulaga, W. (2012). 'It's Almost Like Taking the Sales Out of Selling'—Towards A Conceptualization of Value-Based Selling in Business Markets. *Industrial Marketing Management*, *41*(1), 174–185.

Tong, S., Jia, N., Luo, X., & Fang, Z. (2021). The Janus Face of Artificial Intelligence Feedback: Deployment Versus Disclosure Effects on Employee Performance. *Strategic Management Journal*, *42*(9), 1600–1631.

Tuckett, D., & Nikolic, M. (2017). The role of conviction and narrative in decision-making under radical uncertainty. *Theory & Psychology*, *27*(4), 501–523.

Tuckett, D., & Taffler, R. (2008). Phantastic objects and the financial market's sense of reality: A psychoanalytic contribution to the understanding of stock market instability. *The International Journal of Psychoanalysis*, *89*(2), 389-412.

Tuli, K. R., Kohli, A. K., & Bharadwaj, S. G. (2007). Rethinking Customer Solutions: From Product Bundles to Relational. *Journal of Marketing*, 71(3), 1-17.

Ulaga, W., & Kohli, A. K. (2018). The Role of a Solutions Salesperson: Reducing Uncertainty and Fostering Adaptiveness. *Industrial Marketing Management, 69*, 161-168.

Ulaga, W., & Reinartz, W. J. (2011). Hybrid offerings: How Manufacturing Firms Combine Goods and Services Successfully. *Journal of Marketing*, *75*(6), 5-23.

Walter, A., Ritter, T., & Gemünden, H. G. (2001). Value creation in buyer–seller relationships: Theoretical considerations and empirical results from a supplier's perspective. *Industrial Marketing Management*, *30*(4), 365-377.

Whyte, G. (1986). Escalating Commitment to a Course of Action: A Reinterpretation. *The Academy of Management Review*, *11*(2), 311–321.

Wilson, J. M., & Hunt, C. S. (2011). The Impact of Sales Engineers on Salesperson Effectiveness. *Journal of Marketing Development and Competitiveness*, *5*(2), 130-138.

Worm, S., Bharadwaj, S. G., Ulaga, W., & Reinartz, W. J. (2017). When and why do customer solutions pay off in business markets?. *Journal of the Academy of Marketing Science*, *45*(4), 490-512.

Xu, J., Van der Borgh, M., Nijssen, E. J., & Lam, S. K. (2022). Why salespeople avoid big-whale sales opportunities. *Journal of Marketing*, *86*(5), 95-116.

Ye, J., Marinova, D., & Singh, J. (2007). Strategic change implementation and performance loss in the front lines. *Journal of Marketing*, *71*(4), 156-171.

Figure 1- Conceptual Framework

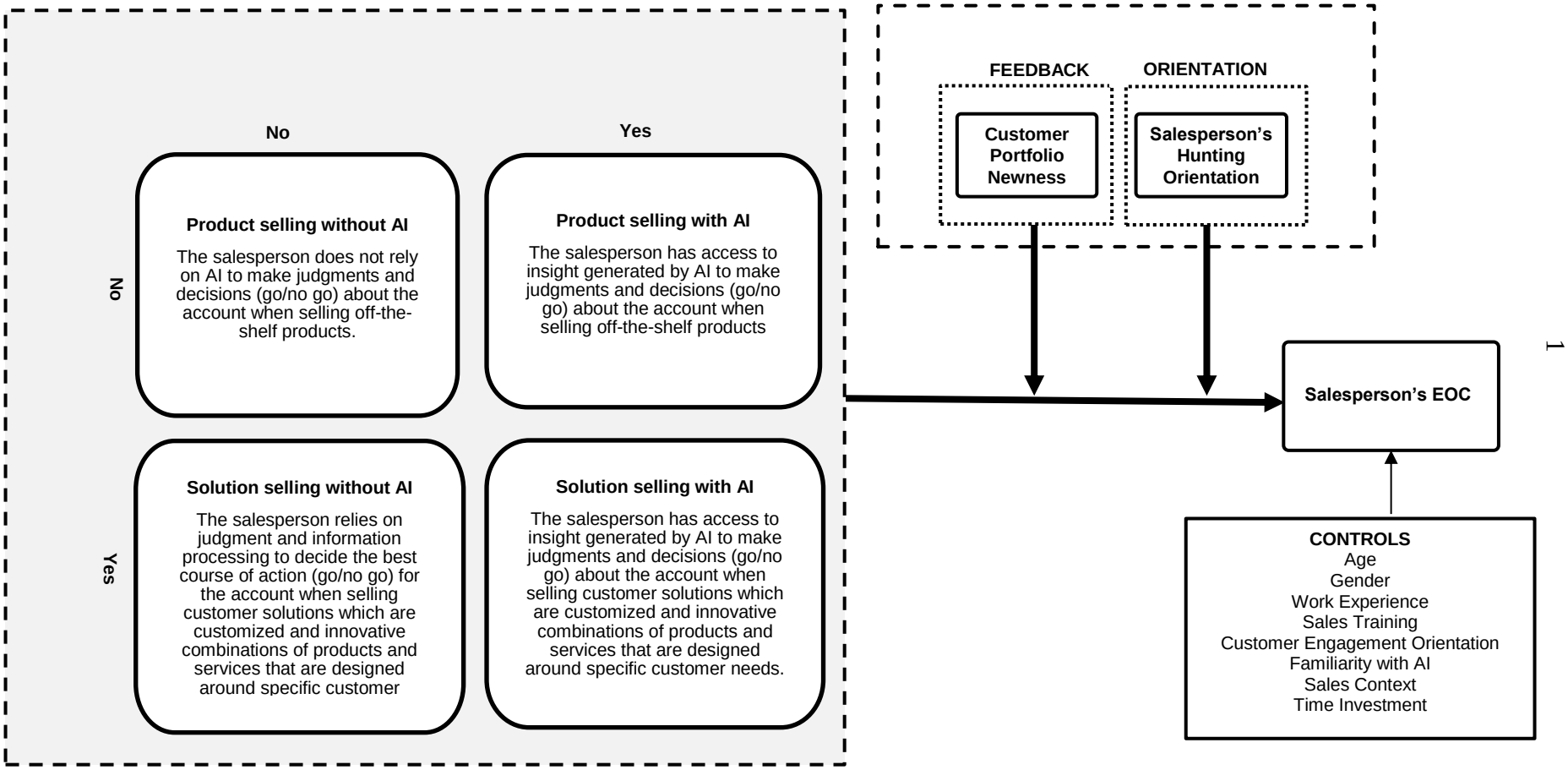
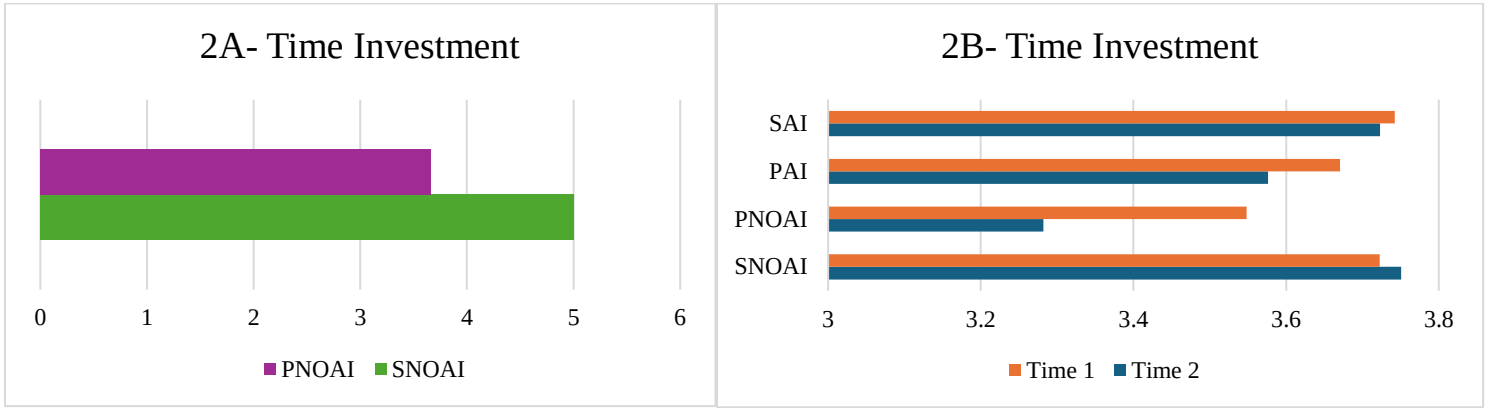


Figure 2 - Model-free evidence



Table

Table 1- Representative Research on Salespeople's Judgment and Decision-making

Study	Key Constructs	Findings	Focus
McFarland et al. (2006)	Salespeople's influence tactic, buyer manifest influence, and different buyer types.	Salespeople understand the complexity of buyers and adapt their influence tactics accordingly.	Salesperson's judgment of customer information
Homburg et al. (2009)	Frontline's customer orientation, cognitive empathy, length of relationship, age discrepancy, training, customer need knowledge, customer satisfaction, and customer value	Customer need knowledge plays a significant mediating role in achieving customer satisfaction and customer value.	Frontline's judgment of customer information
Ahearne et al. (2010)	Salespeople's performance trajectory, learning orientation (LO), and performance orientation (PO)	Following a change, a salesperson's performance trajectory follows an initial decline, recovery, and restabilization. Salespeople's LO and PO affect this trajectory.	Salespeople's judgment of uncertainty and change
Agnihotri et al. (2012)	Salespeole's capacity for concern, capacity for guilt, ethical attitude, role clarity, and ethical behavior	Capacity for concern and guilt impacts salespeople's ethical attitude, enhancing ethical behavior.	Emotional capacities in salesperson's decision-making
Sarin et al. (2012)	Outcome- and process-oriented supervisory actions, salespeople's primary and secondary appraisal, change implementation behaviors, and change implementation outcomes	Outcome-oriented supervisory actions improve primary appraisal, and process-based supervisory actions improve secondary appraisal. Further, primary and secondary appraisals lead to changes in implementation behaviors.	Impact of salespeople's judgment on their behavior
Mullins et al. (2014)	Self-efficacy, customer orientation, customer relationship quality, salesperson relationship quality, salesperson accuracy, salesperson inaccuracy, account profitability, control system, and relationship phase	Self-efficacy (customer orientation) biases salespeople's perception upwardly (downwardly). Behavior-based control systems can modify these biases.	Salesperson's judgment of customer information
Locander et al. (2014)	Self-emotion appraisal, deliberation, emotion regulation, adaptive selling, intuition, and performance	Intuition moderates the relationship between deliberation and emotion regulation, and adaptive selling. Further intuition impacts deliberative and emotive thought processes.	How salespeople make decision
Bonney et al. (2014)	Competitive intensity, selling efficacy, disclosure of account, and EOC	Salespeople's EOC is driven by competitive intensity, selling efficacy, and disclosure of account.	Salespeople's biases in judgment and decision-making
Hall et al. (2015)	Intuitive accuracy, appropriateness of initial sales strategy, deliberative accuracy, customer need change, performance, deliberative processing, and intuitive processing.	Intuitive accuracy enhances performance through appropriate initial sales strategy. When inaccurate deliberative judgment follows accurate intuitive judgments, it hurts performance.	Salespeople's judgment of customer information
Mayberry et al. (2018)	Salesperson ability, strategic account, and channel account	Non-strategic accounts and non-channel partners are more likely to lead to EOC. A salesperson's low ability also leads to escalation bias.	Salespeople's biases in judgment and decision-making
Ulaga and Kohli (2018)	N.A.	The authors investigate the role of solution salespersons in reducing uncertainty and enhancing adaptiveness.	Salespeople deal with different types of uncertainty.
Lam and van der Borgh (2021)	N.A.	A framework for future research on salespeople judgment and decision-making.	Salespeople judgment and decision-making research
Xu et al. (2022)	Salesperson's initial judgment of opportunity magnitude and conversion uncertainty, task and salesperson characteristics, benefit-cost analysis, resource slack, performance, and the decision to pursue	Initial judgment has an inverted U-shaped relationship with performance. Avoidance of large opportunities happens because of benefit-cost analyses.	Salespeople judgment of customer information

Table 2- Descriptive Statistics of Sample

Variable	Categories	Percentage
Age (Years old)	≤ 30	13.29%
	31- 40	25%
	41- 50	26.90%
	> 50	34.81%
Gender	Male (coded as 1)	62.03%
	Female (Coded as 0)	37.97%
Education	College or above	69.63%
	Professional degree	3.16%
	Other	27.21%
Experience (Years)	≤ 5	8.23%
	6 – 10	16.45%
	> 10	75.32%

Note: $N_{salesperson} = 316$

Table 3- ANOVA Results

EOC	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
Solution	0.357	0.080	4.460	0.00	0.199	0.514	***
AI	0.203	0.080	2.530	0.01	0.045	0.361	**
Solution × AI							
1 1	-0.252	0.112	-2.240	0.02	-0.475	-0.030	**
Age	0.000	0.003	0.000	0.99	-0.007	0.007	
Genders	0.113	0.059	1.880	0.06	-.0.005	0.231	
Hunting Orientation	-0.003	0.031	0.110	0.91	0.065	0.058	
Experience	-.0.003	0.003	-0.960	0.33	-0.011	0.00	
Training	0.013	0.025	0.520	0.60	-0.037	0.06	
Farming Orientation	0.036	0.035	1.040	0.30	-0.033	0.10	
Product Category	-0.065	0.059	-1.100	0.27	-0.183	0.05	
Tenure	0.001	0.002	0.530	0.59	-0.002	0.00	
AI Familiarity	0.032	0.016	1.960	0.05	-0.000	0.06	**
Time1	0.022	0.001	17.460	0.00	0.019	0.02	***
Constant	2.170	0.178	12.15	0.00	1.819	2.522	***
R-squared	0.59	Number of observations				310	
F-test	32.89	Prob > F				0.00	

*** p<.01, ** p<.05, * p<.1*

Table 4- Slope Analysis

	Delta-method					
	Margin	std. err.	t	P>t	95% confidence interval	
PNOAI	3.282	0.056	58.55	0.00	3.171	3.392
PAI	3.572	0.055	64.55	0.00	3.463	3.680
SNOAI	3.750	0.055	67.35	0.00	3.641	3.860
SAI	3.723	0.054	67.71	0.00	3.614	3.831

Table 5- Results of SEM Moderation Analysis

Independent Variables	EOC	P-value
Solution	0.601***	0.00
AI Use	0.544***	0.00
Hunting Orientation	0.221***	0.00
Portfolio Newness	0.065	0.24
Solution × AI Use	-0.409***	0.00
Solution × Hunting Orientation	-0.498***	0.00
Solution × Portfolio Newness	-0.041	0.43
AI Use × Hunting Orientation	-0.495***	0.00
AI Use × Portfolio Newness	-0.104**	0.01
Solution × AI Use × Hunting Orientation	0.326***	0.00
Solution × AI Use × Portfolio Newness	0.063*	0.08
Gender	0.066*	0.05
Experience	-0.039	0.29
Age	-0.0060	0.51
Product Category	-0.039	0.25
Tenure	-0.011	0.27
AI Familiarity	0.014	0.75
Time1	0.445***	0.00
Farming Orientation	0.090**	0.01
Primary Appraisal	0.061	0.16
Secondary Appraisal	-0.002	0.96

N= 269

**** p<.01, ** p<.05, * p<.1*