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Sales team value co-creation in turbulent markets: the role of team learning and agility

Eddie Inyang

Omar S. Itani

The University of Texas Rio Grande Valley, omar.itani@utrgv.edu

Hayam Alnakhli

Juliana White

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Sales team value co-creation in turbulent markets: the role of team learning and agility

Abstract

Value co-creation has emerged as a way for organizations to gain a competitive advantage and differentiate themselves from the competition. In the literature, a positive link has been found between value co-creation and firm performance. However, the impact of sales team value co-creation on performance has been largely unexplored. This study explores drivers of value co-creation by sales teams and its performance outcomes, with market turbulence as a contingency factor. Using a sample of 201 salespeople in 24 sales teams, the results indicate that when sales teams co-create value with customers, they can increase their sales performance. This effect is magnified when sales teams are working with customers operating in turbulent environments.

Keywords: Sales Teams value Co-Creation; Learning; Agility; Sales Performance; Market Turbulence

Uncorrected proof

Eddie Inyang, Associate Professor of Marketing
Department of Marketing and Interdisciplinary Business
School of Business
The College of New Jersey
2000 Pennington Road, Ewing, NJ 08628 United States
inyanga@tcnj.edu
609-771-3027

Omar S. Itani, Assistant Professor of Marketing
Department of Marketing
Adnan Kassar School of Business
Lebanese American University
P.O. Box 13-5053, Beirut, Lebanon
Omar.itani@lau.edu

Hayam Alnakhli, Assistant Professor of Marketing and Sales
Department of Marketing and Hospitality
College of Business Administration
Central Michigan University
150 E. Bellows, Mount Pleasant, MI 48859 United States
Alnak1h@cmich.edu

Juliana White, Assistant Professor of Marketing
Department of Marketing and Supply Chain Management
College of Business
Southeastern Louisiana University
500 W. University Ave, Hammond, LA 70402 United States
Juliana.white@selu.edu

1. Introduction

In today's hypercompetitive business environment, many sales organizations are grappling with how to avoid competing only on price due to product and service commoditization occurring in many B2B markets (Ulaga & Kohli, 2018). According to a study by Richardson (2019), one of the leading challenges salespeople face is how to create value with prospective customers. The same study found that most B2B buyers believe salespeople did not "make the case for change" and their perceptions of the sellers' value often did not justify the risk of change. As value becomes an ever-more crucial element of sales success, the ability to co-create value with customers has become one of the ways salespeople can distinguish themselves and the offers they sell from the competition. This becomes particularly relevant during periods of marketplace disruption, such as those occurring worldwide post Covid-19 (Dugan et al., 2022). When sales organizations can co-create value with customers, they can actually benefit from marketplace uncertainty and gain a competitive advantage. Co-creation of value is the practice of actively involving customers in the process of value creation, and it is slated to become one of the leading ways firms gain a competitive advantage (Hohenschwert, 2012; Cossio-Silva et al., 2016; Sinkovics et al., 2018).

Another way firms respond to the competitive market environment is by organizing their salespeople into sales teams (Mullins & Pangopoulos, 2019). Team-based selling approaches help organizations better meet customers' needs through information sharing and peer-to-peer motivating behaviors of salespeople within sales teams (Ahearne et al., 2010). Sales teams are also more effective at building long-term relationships with customers, learning about their needs, particularly for enterprise-level customers, and are over two and half times more effective in closing deals (Auh et al., 2014; Orlob, 2017). As sales teams are adept at information sharing

and building relationships with customers (behaviors that enable value co-creation), it follows suit that sales teams should be successful in co-creating value with customers.

Value co-creation is process-driven—customers are active participants in the exchange process and are co-creators of the value generated through this process (Prahalad & Ramaswamy, 2004). Even beyond the static point of exchange, most customer interactions with the firm necessitate value co-creation. This puts the onus on employees, specifically salespeople, who frequently interact with and maintain close relationships with customers, and act as a primary touchpoint between customer and firm in the value co-creation process. For example, they co-create value by jointly developing solutions with customers that will improve the customer's business by reducing costs, enhancing profitability, or both (Terho et al., 2017).

Despite the vital role of salespeople in value co-creation, there have been few empirical examinations in the literature to understand this vital variable in the context of sales. Research on how value co-creation affects the behavior of salespeople is limited with many of the previous studies focusing on how performance outcomes are influenced by value co-creation behaviors at the firm level (Sinkovics et al., 2018; Zaborek & Mazur, 2019). Specifically, the antecedents and consequences of value co-creation at the sales team level is overlooked in the literature. Co-creating value with customers can help buyers develop stronger customer relationships (Plouffe et al., 2020), and strong relationships help firms create a sustainable competitive advantage (Palmatier and Sridhar 2020). Therefore, understanding the antecedents that empower value co-creation with customers is essential. In this study, we examine how sales team agility and sales team learning act as enablers of value co-creation with customers, which in turn can affect sales team performance, taking into consideration the contingency effect of market turbulence.

This research will contribute to the literature in three ways. First, it will examine drivers of successful value co-creation by salespeople within sales teams. In the extant literature, there is very little research on the drivers of value co-creation by the sales force. Prior research suggests organizational and individual factors can influence the adoption of a value-based selling approach by salespeople (Terho et al., 2017). This study will evaluate how sales team learning and sales team agility can influence the value co-creation behaviors of sales teams. Second, this study will examine the performance consequences of value co-creation at the sales team level. Most previous studies in the literature have tested the effect of value co-creation on performance at the organizational (Sinkovics et al., 2018; Zaborek & Mazur, 2019) or individual level (Itani et al., 2022). Since salespeople and sales teams are boundary-spanners, they are at the cutting edge of customer interactions and play a vital role in enabling value co-creation with customers. Finally, this research looks at how the external market environment (i.e., market turbulence) can disrupt the relationship between value co-creation and performance. The conceptual model of this study is presented in Figure 1.

Insert Figure 1 about here

2. THEORETICAL BACKGROUND

Changes in marketing and selling have occurred since the introduction of Service Dominant Logic (hereafter, SDL) to the field of marketing (e.g., Vargo & Lusch, 2004; 2008). SDL maintains that marketers' and salespeople' roles have shifted from merely delivering products and services that render value to customers, to co-creating value with customers (Agnihotri et al., 2017). Vargo and Lusch (2004; 2008) propose that service is the basis of all exchanges, and highlight the importance of intangible resources, value co-creation, and

relationships. According to Brodie et al. (2019), SDL proposes a value co-creation process where actors, including salespeople, sales teams, and customers, engage in service exchange and resource assimilation, leading to a nested and interrelated service ecosystem. SDL further advances our understanding of this process, as it provides a clear pathway from specific salesperson behaviors that typify the theoretical foundation and the resulting value co-creation with customers, evidenced in the buyer-seller interaction (Vargo & Lusch 2017).

The sales function is the primary boundary spanning function within the firm and is at the heart of value co-creation with customers. At this end, the value co-created between salespeople and buyers is essential for customer satisfaction and sales performance, as it supports the success of buyer-seller relationships. Sheth and Sharma (2008) argue that salespeople contribute to customer value based on SDL through consultative and relational selling, leading to more satisfied customers. Building further on SDL, Hartmann et al. (2018) offer a new theoretical foundation for selling that focuses on the service ecosystem. The authors suggest that multiple actors, including salespeople, sales teams, and customers, can foster value co-creation by participating in institutionalization processes. Accordingly, salespeople play a significant role in the value co-creation process, explicitly when value is co-created with buyers in B2B markets.

The sales force is a crucial factor in helping selling firms co-create value with buying firms. Sales scholars have applied SDL to examine the significant role salespeople play in value co-creation by effectively implementing the service-based marketing approach within their organizations (e.g., Sheth & Sharma, 2008; Blocker et al., 2012; Hohenschwert, 2012; Le Meunier-FitzHugh et al., 2011). These studies indicate that SDL explains key shifts in the sales role toward intangibles, such as value co-creation with customers.

SDL's main premise is that customers are co-creators of value (Vargo & Lusch, 2008). This premise has altered the core function of salespeople and made them responsible for expediting the value co-creation process by ensuring they support and stimulate buyers to participate and engage with them in co-creating the value. Prior studies have explicated how other SDL premises are relevant to personal selling and relational marketing (Hartmann et al., 2018; Blocker et al., 2012; Le Meunier-FitzHugh et al., 2011; Sheth and Sharma, 2008;), making SDL a theoretical concept of interest for sales research.

In the literature, there is no consistent definition of the value co-creation construct. In this study, we adopt the definition of value co-creation based on Sheth's (2020) conceptualization, that defines value co-creation as a phenomenon that "... arises when both the supplier and the customer engage in an interdependent relationship. Each party contributes resources which are unique and complementary to value creation" (p.2). Thus, in accordance with SDL and related literature, value co-creation is suggested to be customer-focused and interactional in nature (Vargo & Lusch, 2008; Sheth & Sharma, 2008; Gummesson, 2008).

To this end, sales teams differ based on the level of value co-creation they adopt in their interactions with buyers, and the impacts on customers are evident. Customers will likely view a salesperson as better than other salespeople if she or he is co-creating superior value with them (Murali et al., 2016; Echchakoui, 2015). Value co-creation enhances the benefits and reduces the costs experienced by buyers. It is derived through service exchanges between buyers and sellers and supports sales organizations in gaining a competitive advantage. During their interactions with customers, sales teams are increasingly expected to ensure that customers are provided the opportunity to participate in the service and production processes to optimize value co-creation (Itani et al., 2022). Through seller-buyer service exchanges, sales organizations drive

performance via value co-creation and differentiate their offerings from competitors, leading to unique market positioning.

The service ecosystem perspective of selling views value as co-created by the involvement of different actors, including sales teams, , and customers (Hartmann et al., 2018). Value co-creation behaviors allow salespeople to involve buying firms in the service and production processes to drive more benefits unique to each customer. Such a view is supported by the interactional and experiential nature of customer value. In terms of the organizational selling function, teams work together and with customers in a large service system to exchange resources and co-create value (e.g., Hartmann et al., 2018). To this end, value co-creation provides sellers and customers with the opportunity to integrate and apply their collective resources for mutually beneficial long-term relationships. The competitive edge sales teams gain by using value co-creation with buyers in the market allows them to deliver superior customer benefits that result in higher performance and sales outcomes.

3. MODEL DEVELOPMENT

3.1 Sales team learning and value co-creation

Sales team learning is defined as a process through which sales teams create knowledge for salespeople within the sales team, the sales team as a group, and for the organization as a whole (Rangarajan et al. 2004). In the organizational learning literature, individuals and groups in an organization create, share, and retain knowledge to help the organization achieve its goals. In their seminal work on the learning organization, Slater and Narver (1995) defined organizational learning as "... the development of new knowledge or insights that have the potential to influence behavior" (p. 63). Slater and Narver (1995) further delineated organizational learning as three stages—information acquisition, information dissemination, and

shared interpretation. In their view, organizations gain a competitive advantage when knowledge is acquired, acted upon, and shared.

Sales team learning is conceptualized as organizational learning that occurs at the team level. In sales organizations, learning occurs at the individual salesperson level, sales team level, and organizational level (Chonko et al. 2003). At the salesperson level, salespeople learn procedures, processes and behaviors that leads to performance, and at the organizational level, accumulated knowledge is shared through databases and CRM systems allowing for information dissemination. At the group level such as in sales teams, individual -level knowledge and organizational knowledge is disseminated among sales team members leading to shared beliefs on effective practices and behaviors (Chonko et al. 2003). Hence, salespeople within sales teams are able to acquire knowledge and skills to meet the needs of customers, and proactively respond to changes in the market.

According to SDL (Vargo & Lusch, 2008), the application of skills and knowledge, which they define as *operant resources* is a source of competitive advantage. In SDL, actors contribute resources, and during interactions between actors, value co-creation arises due to resource integration (Gronroos & Voima, 2013; Vargo & Lusch, 2016). Therefore, when salespeople, as part of a sales team, obtain knowledge about customers' industry and use cases, and that knowledge is shared among all team members, the sales team will be better positioned to co-create value with customers. The co-creation of value often depends on collaboration with customers (Sheth, 2020).

As boundary-spanners, salespeople can leverage their team's and organization's resources and combine them with their knowledge to collaborate with the customer to develop solutions that meet the customer's needs. Before value co-creation takes place, customers share

resources during their interactions with the sales team as well as their value system and the provision of information about their value drivers (Baumann & Le Meunier-FitzHugh, 2015). When sales teams understand the customer's value systems and value drivers, they can use that information along with their own resources to co-create value with the customer (Baumann & Le Meunier-FitzHugh, 2015). Since knowledge about customers and the ability to use that knowledge for the benefits of customers is an antecedent to value co-creation (Ballantyne & Varey, 2006; Vargo & Lusch, 2008), it is hypothesized that:

H1: Sales team learning is positively associated with sales team value co-creation.

3.2 Sales team learning and sales team agility

Sales team learning occurs when members of a team collaborate to acquire joint understanding of the key knowledge and abilities that are relevant for the success of the sales team. This type of learning allows sales teams to become more agile and better prepared to manage change and new challenges. Sales team learning motivates open communication, permitting teams to establish a shared understanding of the various tasks necessary to satisfy customers' needs. It helps teams to become more adaptive and creative, enabling them to swiftly come up with solutions to complex problems, proactively identifying solutions to customers' needs and anticipating changes in customers' operating environment which is key to being an agile sales team (Chonko & Jones, 2005). To satisfy customers' needs proactively and effectively, agile sales teams need information and knowledge. Sales organizations that foster learning among their employees create a climate where employees are motivated to acquire and share information to better satisfy customers' needs. In sales teams, salespeople, individually or collectively, acquire market knowledge, knowledge of customers' preferences, competitor

actions, and product positioning (Inyang & Jaramillo, 2020). This allows salespeople within sales teams to build on this information to respond quickly to customers' needs, which can evolve due to the dynamic business environment. Knowledge and skills are key requirements for employees to be agile (Maduli 2017). Within these lines, previous research found a positive link between organizational learning and workforce agility (Maduli 2017). In a team selling environment, where sales team members collaborate and share information and resources that could benefit customers, the sales team can promptly identify valuable solutions for customers and share this with customers faster than competitors (Haas et al., 2012). As speed and proactiveness of the sales team are facilitated by sales team learning, it is hypothesized that:

H2: Sales team learning is positively associated with sales team agility.

3.3 Sales team agility and value co-creation

Chonko and Jones (2005) were the pioneers to articulate the importance of agility in sales. In their conceptualization of salesperson agility, they define it as consisting of two components: 1) The ability of the sales force to respond properly and promptly to changes in the environment, and 2) The ability of the sales force to utilize these changes to their advantage so that they become opportunities rather than burdens. Dealing with marketplace turbulence and turning inherent environmental unpredictability into opportunity is a critical aspect of agility, making the agile salesperson and sales team successful. An able and agile sales team responds to such events in a way that augments value for their customers.

Chonko and Jones (2005) further contend that sales team agility necessitates a forward-thinking mindset that addresses customers' future needs. The agile sales team can therefore develop comprehensive and holistic solutions. To achieve this, agility requires that sales teams to

be constantly in tune with their customers and the ever-changing preferences and needs that these customers have (Chonko & Jones, 2005).

The agile sales team can inspire meaningful interactions between customers and selling organizations, a compelling competency in that it greatly enhances the value of these exchanges (Levine et al., 2001). Agile sales teams tend to see variances and changes in their environments as opportunities rather than threats—the sales team that exhibits a high degree of agility is able to anticipate changes in customer accounts and strategically respond to such changes (Chonko & Jones, 2005). This interplay is critical for the creation of customer value. Prahalad and Ramaswamy (2004) note that personalized customer experiences, such as the ones that agile sales teams tend to foster are fast becoming the gold standard for value creation. Value co-creation must then rely on highly personalized and rich customer relationships.

According to the interactional view of value co-creation (Gronroos & Voima, 2013), there is a link between the ability to react to changing customer needs, desires, and interests, and the co-creation of valuable customer experiences. The very core of sales team agility is the interaction. If the sales team cannot anticipate customer variability, it follows suit that they also cannot respond adequately to it.

SDL proposes that firms can no longer focus on simply making and selling products but must *'sense and respond'* to the nuances of the marketplace in order to enhance value for consumers (Vargo & Lusch 2004; 2008). The notion of *'sensing and responding'* mirrors the core advantage of a highly agile sales team—the ability to forecast and, in turn, enhance customer relationships (e.g., Itani et al., 2019). SDL emphasizes the dynamic and integration of the customer and seller, and participation between the two actors within the exchange (Vargo & Lusch, 2004). This “relational” paradigm was proposed as a replacement for the discrete

exchange paradigm, which previously dominated marketing theory (Bolton 2004; Vargo & Lusch 2004). The relational paradigm given by SDL gives insight into why engagement with the customer is so important. It is the interaction between the consumer and the firm, both socially and economically, which leads to value co-creation (Yngfalk, 2013). SDL strengthens the link between sales team agility and value co-creation because it allows us to understand why the tenets of agility: flexibility, responsiveness, and ability to forecast customer needs, are so important for co-creating value.

A highly agile sales team, well in tune with its customers' needs, will be better able to uphold meaningful customer interactions. These interactions and their extended experiences are the key components of value co-creation (Prahalad & Ramaswamy, 2004). SDL therefore provides theoretical support for the connection of sales team agility and value co-creation. Because value co-creation depends on the interaction between the firm and the customer, and sales team agility enriches such interactions, we hypothesize that:

H3: Sales team agility is positively associated with sales team value co-creation.

3.4 Sales team value co-creation and performance

Consumers increasingly seek superior value from their relationships with sales organizations (Prahalad & Ramaswamy, 2004). Since a sales team plays a considerable role in the relationship with the firm (Shepherd, 1999), it is exclusively suited to anticipate and respond to changing customer needs and, in turn, improve value. The evolving view is that value is not embedded in the offerings presented by selling organizations, but that value is co-created through the integration of resources between buyers and sellers (Jaakkola & Hakanen, 2013). According to SDL, knowledge is the fundamental source of competitive advantage (Vargo & Lusch 2008;

2016). When salespeople and sales teams can use their knowledge to co-produce value with customers, they will be in a strong position to win the customer's business vis-à-vis other competitors. In addition, interactions are an essential component of value co-creation, and prior research has demonstrated that when suppliers interact with customers to co-create value, it has a positive effect on firm performance (Sinkovics et al., 2018, Zaborek & Mazur, 2019).

In B2B sales, salespeople and sales teams interact with customers to co-create value. During their interactions, salespeople and sales teams can use their industry knowledge to uncover the customer's value drivers. By co-creating value with customers, salespeople and sales teams can engender customer loyalty (Cossio-Silva et al., 2016), an antecedent to share of wallet and future sales (Evanschizky et al. 2012). Additionally, prior research had found that when a supplier involved a customer's users in product development, the jointly developed product outsold similar internally developed products eight times (Lilien et al. 2002). Hence, we propose that when sales teams co-create value with customers, it will ultimately positively affect sales team performance. We hypothesize that:

H4: Sales team value co-creation is positively related to sales team performance.

3.5 The mediating role of sales team agility

Salespeople as boundary-spanners are at the interface between their organization and their customers' organizations. In their role, they often interact with individuals in their own organization, with their customers, and with other suppliers. These interactions are particularly salient in sales teams where members work together internally on customer issues, as well as with various departments within their customers' organizations. Leveraging SDL, we argue that sales team agility is the process through which knowledge and other resources acquired within

the sales team and organization, allows the sales team to effectively co-create value with customers. For a sales team to be agile, it must respond promptly to changes occurring in the marketplace and leverage these changes for the benefit of customers (Chonko and Jones 2005). An agile sales team uses knowledge and structures within the sales team and organization to effectually offer solutions to customers while involving them in the solution development process. Sales team learning facilitates the co-creation of value by providing sales teams with an extensive knowledge base that they can use when sharing resources, including information and insights, with customers. As organizational structure and knowledge are enablers of salesperson and sales team agility (Chonko and Jones 2005), and an agile sales team can proactively respond to customers' needs and co-create solutions with them, it is hypothesized that;

H5: Sales team agility mediates the positive relationship between sales team learning and sales team value co-creation.

3.6 The moderating effect of market turbulence on the relationship between sales team value co-creation and performance

Market turbulence and the resulting environmental unpredictability is a critical consideration in the modern sales environment. Global and economic forces produce volatility in the marketplace, creating additional uncertainties for sales teams to address (Christopher, 2000). As customers' needs shift with increased market turbulence, so too does the impact and importance of value co-creation in the sales organization. Market turbulence manifests as unexpected changes in the business environment, including unexpected deviancies in customer needs and preferences (Chonko & Jones, 2005; Zhang & Sharifi, 2000). When organizations operate in high turbulent markets, rates of change in terms of customer composition and

underlying customer needs are higher and more difficult to address (Christopher, 2000). It is imperative that the sales team respond to high levels of market turbulence in ways that continue to enhance value for its customers.

SDL posits that collaboration between customers and salespeople yields more meaningful and beneficial exchange relationships (Sheth, 2020). The importance of these exchange relationships becomes particularly important when considering customers operating within turbulent market environments. As businesses must contend with increased unpredictability and uncertainty, the power of strong customer relationships built upon value co-creation becomes more evident (Jaworski & Kohli, 1993). Furthermore, in situations where customer relationships are characterized by high market turbulence, the necessity for strong value co-creation is even greater. SDL maintains that the effect of value co-creation on such customer relationships will have a positive impact on performance (Pralahad & Ramaswamy, 2004; Etgar, 2008). This impact is likely to be contingent on the turbulences taking place in a the market.

Creating benefits for all stakeholders by delivering value through the relationship is paramount to SDL (Sheth 2020). Organizations that operate in highly turbulent marketplaces—those characterized by high degrees of customer-specific product and service modifications and high variability in customer demands (Jaworski & Kohli, 1993)—are hypothesized to see more of these objective benefits from enhanced value co-creation. Therefore, we hypothesize that:

H6: Market turbulence will positively moderate the relationship between sales team value co-creation and performance.

4. METHODOLOGY

4.1 Sample and data collection

To empirically examine the hypothesized relationships, we collected the data from a Fortune 500 company in the industrial goods sector. The firm's salespeople are responsible for building and maintaining business relationships with their customers and are organized into sales teams. The organization's sales teams use team-based selling approaches to sell to customers, with each sales team earning commissions based on overall sales team performance. With management's consent, 24 sales teams randomly selected from the firm's sales force were invited to participate in the study. An electronic survey link was sent to 24 sales managers and 221 salespeople in their sales teams. Of the 221 salespeople invited, 202 completed the survey for a response rate of 91.4 percent. However, one individual did not complete all the survey items and was dropped at the data analysis stage, leaving a final sample of 201 salespeople. All 24 sales managers completed the survey and provided archival year-to-date sales team performance data from company records.

The demographic properties of the salespeople are: 175 males (87%), 22 females (11%), and with no gender orientation (2%). Their age ranged from 26 to 63 years, with a mean age of 46.4 years ($SD = 8.6$). The tenure of the salespeople at their firms ranged from 1 to 29 years, with an average tenure of 19.8 years ($SD = 9.3$).

4.2 Measures

All scale items and their respective items were drawn from established scales and prior studies (Appendix). Value Co-creation was operationalized as the involvement of customers in solution development and was measured using six items adapted from Ettlíe and Reza (1992) and Walter et al. (2001) [*Exemplar item: We engage in the joint development of new products with customers*]. Other sales studies have used similar approaches to measure value co-creation (e.g., Itani et al., 2022). As there were no established scales on sales team learning, we operationalized

sales team learning as both a process and structure that facilitate the learning and development of new ideas, specifically in sales, and was measured using three items adapted from Le Meunier-FritzHugh & Piercy (2007) [*Exemplar item: we believe that employee learning is an investment, not an expense*]. Sales team agility was operationalized as a salesperson anticipating and quickly responding to customers' needs and wants, and was measured using eight items based on the work of Chonko and Jones (2005) [*Exemplar item: I proactively anticipate and develop suggestions for future customer needs*]. Market turbulence captured the changes in the external market environment of the customer and was measured using five items from Jaworski and Kohli (1993). [*Exemplar item: Our customers tend to look for new products all the time*]. Sales team performance was measured using year-to-date sales team quota achievement from company records. Salespeople responded to the sales team learning, sales team agility, and value co-creation measures, while sales managers responded to the market turbulence measure.

All constructs except for salesperson performance were measured on a seven-point agreement Likert-type scale, ranging from: 1 =strongly disagree to 7 = strongly agree. Sales team performance was measured using firm archival performance data (objective). The performance data was the year-to-date percent of quota achievement for each sales team in the sample. The performance data included sales team quota achievement over seven months, provided in terms of percentages, and the data were averaged over the 7-months to yield year-to-date quota achievement. When utilizing objective data with reflectively measured constructs from multiple sources, the likelihood of common method variance is greatly reduced (Johnson et al., 2014).

5. Analysis

5.1 Measurement model

To examine the reliability and validity of the study's constructs, different criteria were used. First, indicator loadings were inspected to determine if they exceeded the endorsed 0.70 threshold for indicator loadings on their respective constructs. All indicators loaded on their particular constructs, and most of them surpassed the recommended 0.70 at $p < 0.01$ threshold (see Appendix), thereby providing evidence of construct reliability (Hair et al., 2019). Two items with low loadings from the market turbulence scale were dropped due to low loadings. To establish construct reliability, composite reliability (CR) was assessed. All CRs were above the 0.75 level, providing additional evidence of construct reliability (Hair et al., 2019).

Next, convergent validity was evaluated by means of average variance extracted (AVE). The AVE values for the constructs were greater than 0.50, representing evidence of the convergent validity for the measures (Hair et al., 2019). Discriminant validity was assessed using two methods. First, each construct's AVE's square root exceeded its correlation with any other construct in the model (Fornell & Larcker, 1981), delivering evidence of discriminant validity. Furthermore, discriminant validity was checked using the HTMT ratio. The HTMT ratios for the reflectively measured constructs were lower than 0.85, providing further indication of discriminant validity (Hair et al., 2019). Table 1 lists the correlations between constructs and the results of the reliability and validity tests.

Insert Table 1 about here

Further, collinearity was assessed. The highest variance inflation (VIF) factor was 4.2, which is less than the cutoff level of 5 in which collinearity is likely to be a factor (Hair et al., 2019).

5.2 Data aggregation method

Consistent with other published research on sales teams (Ahearne et al., 2010; Auh et al., 2014), our conceptual model consists of constructs measured at the salesperson level but operationalized at the sales team level. Constructs at the individual level of analysis were used to create new higher-level constructs at the sales team level (LeBreton & Senter, 2008). To create team-level measures from individual salesperson responses, we aggregated individual salesperson responses for each construct in the model, except for market turbulence and sales team performance, to produce one score for each sales team. To justify aggregation, the index of inter-rater agreement $r_{wg(j)}$ was utilized. The $r_{wg(j)}$ index of inter-rater agreement measures within-team agreement for each of the multi-item scales used in this study and is the most widely used index of inter-rater agreement used to warrant if measures can be aggregated (LeBreton & Senter, 2008; Cohen et al., 2009). In calculating the $r_{wg(j)}$ index for each measure used in the model, the uniform null distribution was used. The uniform null distribution is the preferred distribution used when no theory exists to support using another null distribution (Cohen et al., 2009; Burke et al., 2018). Since there was insufficient theory in the literature to justify using another null distribution in our model, the uniform null distribution was chosen. $R_{wg(j)}$ values above 0.70 indicate sufficient inter-rater agreement within groups to justify aggregation (Lance et al., 2006). The $r_{wg(j)}$ values for the sales team learning measure ranged from 0.57 to 0.96, with 21 of the 24 sales teams $r_{wg(j)}$ values exceeding 0.70. For the sales team agility measure, $r_{wg(j)}$ values ranged from 0.73 to 0.93, and for the value co-creation measure, $r_{wg(j)}$ values ranged from 0.43 to 0.92, with 17 of the 24 sales teams $r_{wg(j)}$ values exceeding 0.70. On two measures, a few sales teams had $r_{wg(j)}$ values below the recommended 0.70 threshold. However, LeBreton and Senter (2008) suggest that when reporting $r_{wg(j)}$ values from multiple groups, it is sufficient to report the mean $r_{wg(j)}$ values for each measure. The mean $r_{wg(j)}$ values for sales team learning, sales team agility, and value co-

creation were 0.85, 0.87, and 0.74, respectively. Therefore, since the mean $r_{wg(j)}$ values for each measure were above the recommended 0.70 threshold, aggregation is justified.

5.3 Structural model

We utilized PLS-SEM to test the hypothesized relationships. PLS-SEM is a proper analytical method to use in this study, as the objective of the study is focused on prediction, and at the same time, the data is not normally normal distributed (Hair et al., 2019). PLS analysis was conducted using WarpPLS 6.0 with the PLS mode A algorithm and the Stable3 resampling method. Stable3 is a technique that uses stable exponential adjustment to generate standard errors and p-values in PLS-SEM that are generally consistent with bootstrapping and often more accurate (Kock, 2018). Salesperson age, gender, and experience were used as control variables. The results are summarized in Table 2.

Insert Table 2 about here

Consistent with H1, a positive relationship between sales team learning and sales team value co-creation ($\beta = 0.48, p < 0.01$) was found. In support of H2, sales team learning has a positive effect on sales team agility ($\beta = 0.22, p < 0.01$). Additionally, sales team agility had a positive effect on sales team value co-creation ($\beta = 0.49, p < 0.01$), approving H3. As hypothesized in H4, value co-creation has a positive effect on sales team performance ($\beta = 0.15, p < 0.05$).

To examine the mediating effects of sales team agility on the relationship between sales team learning and value co-creation, the PLS mediation analysis procedure was used. Mediation occurs when the indirect effect of an independent variable (IV) on a dependent variable (DV) is significant (Matthews, Hair, & Matthews, 2018). In the PLS results, the indirect effect of sales

team learning on sales team value co-creation was positive and significant ($\beta = 0.11, p < 0.05$), providing support for H5.

An analysis of the interactive effects of sales team value co-creation and market turbulence on sales team performance shows that market turbulence strengthens the effect of sales team value co-creation on sales team performance ($\beta = 0.25, p < 0.01$), supporting H6. The moderating effect is graphed in Figure 2.

Insert Figure 2 about here

6. Discussion

This study aims to investigate value co-creation at the sales team level. As the way to create value and satisfy customers is constantly changing, organizations should create a learning culture and have agile sales teams that can respond quickly to customers' evolving needs.. Sales teams should use the knowledge gained from sales organizations that encourages a sales team learning culture to help their customers solve business challenges, thereby avoiding the product/service commoditization trap occurring in many B2B markets.

From a theoretical perspective, we examine how sales team learning and sales team agility enable value co-creation, and the resulting impact of such co-creation on the monetary performance of sales teams. The findings indicate a positive relationship between sales team learning, sales team agility, and sales team value co-creation. Also, our findings show that value co-creation has a positive effect on sales team performance. We show that sales team agility is one of the processes through which sales team learning leads to value co-creation.

We tested the interaction effect of market turbulence and found that market turbulence strengthens the influence of value co-creation on sales team performance. This highlights the

importance of value co-creation, with customers challenged with more market changes and instability. Customers who operate in an unstable and turbulent market will acknowledge the sales teams' efforts to co-create value with them and be more likely to purchase the sales team's offerings, thus enhancing the performance of the sales team. In turbulent markets, value co-creation becomes more important for sales organizations as it allows better alignment between offerings and customers' needs. Value co-creation helps sales organizations turn the challenges caused by turbulent markets into opportunities because it allows them to proactively handle market changes and satisfy the emerging preferences of customers.

7. Managerial implications

In organizations where sales teams carry out selling, value co-creation is the task of team members who need to acquire necessary resources and skills that can help them integrate their resources with that of the customer to accomplish value co-creation. According to our study, a major resource an organization can provide to sales teams to enhance value co-creation is continuous learning. This highlights additional advantages of sales team learning, which needs to be considered an investment to equip sales teams to enable them to know how to co-create value with customers. For that, organizations need to create a culture that supports their sales teams' ongoing learning by creating, transferring, and retaining knowledge that salespeople use for value co-creation and successful sales processes.

Some of the approaches organizations can follow to enhance sales team learning include: refining the structure, procedures, means of coordination, especially inter-team and intra-organizational coordination, incorporating advanced technology that helps collect and analyze information, as well as retain gained experiences to create knowledge (Argote, 2012; Argote &

Miron-Spktor, 2011), and encourage information dissemination among sales team members and the sales organization as a whole. Knowledge is a major resource sales teams integrate with customer resources to co-produce a better solution for customers as part of the value co-creation process. Additionally, the salespeople's knowledge within sales teams can help the organization become strategic when acquiring new customers (Inyang & Jaramillo 2020). On the other hand, sales teams who lack the learning and knowledge needed to involve customers in developing the best solutions will be less likely to co-create value with customers.

Insights from this study show that sales team agility is a clear driver of the value co-creation process. To foster this process, organizations should consider having an agile sales force that utilizes team selling, which should be emphasized during the recruitment process. Agility is a characteristic that sales team members should possess since it helps them work with customers to maximize value in the buyer-seller relationship. Organizations need to seek out salespeople who are willing to stay abreast of changes occurring in their customers' industries. This will allow them to appropriately respond to different scenarios, and continuously engage in scenario-based thinking. These skills will help salespeople anticipate changes in the market and customer preferences and respond to these changes diligently and proactively (Itani et al., 2020).

Salespeople should be encouraged to actively collect market and competitive intelligence, which is a prerequisite to anticipating changes in the market. Organizations can upkeep this initiative by supporting their sales force in their use of technology tools, such as social media, proven to help salespeople collect market and customer intelligence (e.g., Itani et al., 2017). On the other hand, salespeople who resist change and believe in routine work might not help the organization establish the agility culture most firms look for.

As sales team agility is one of the processes through which sales team learning leads to the sales teams' ability to co-create value with customers, fostering a learning climate is the optimal choice for organizations trying to enhance their value co-creation process, which is critical for sales success. Insights from our study indicate that value co-creation influences sales team performance. Sales teams were able to attain a higher percentage of their assigned quota when they co-created value with customers by involving them in developing and co-producing solutions that suited their needs.

Organizations must ensure that their sales teams motivate customers to participate in co-creating a solution that best fits their needs. A follow-up with customers should be made regarding the ease of engaging with the sales team in co-producing better solutions. This is even more important when customers operate in a market with high turbulence and instability. A turbulent market drives changes in customers' preferences and needs more frequently. For that, sales teams should get customers operating in turbulent markets more involved in co-creating the offerings that can best meet their changing needs. When customers operate in markets with high turbulence, higher value co-creation levels allow sales teams to attain higher sales quotas and increase performance. A lower level of value co-creation in turbulent markets will result in low sales performance. In other words, the absence of value co-creation in turbulent markets could be an additional reason for poor performance of sales organizations. Accordingly, organizations and their sales teams should be required to collect information about the conditions of the markets in which their customers operate in and to ensure that customers who operate in highly turbulent markets become more engaged in value co-creation. In today's highly competitive marketplace, sales organizations that can co-create value with their customers will be better positioned to win business and avoid the commoditization trap.

8. Study limitations and future research

As with most research, this study bears some limitations. Our study identified sales team learning and sales team agility as enablers of value co-creation with customers. First, although sales team learning and sales team agility are important predictors of value co-creation with customers, there are likely several other sales team characteristics and organizational factors that can influence value co-creation with customers. Future research should explore other antecedents of effective value co-creation with customers, whether at the salesperson, sales team, or organizational level.

Second, we used a single industrial goods manufacturer to explore the drivers of value co-creation and its influence on performance. In the context of this study, sales team members are encouraged to involve the customer in the solution and product development process, and the focal firm often customizes its products to meet the needs of individual customers. Although Vargo and Lusch (2008) articulate the view that all companies, whether manufacturers or service providers, are involved in the provision of service, the approach to value co-creation will likely vary by industry and whether a firm is a manufacturer, distributor, or service provider. Since our study involved a single firm, results may not provide a completely holistic view of the effects of value co-creation on performance. However, studies that utilize data from a single firm are common throughout sales literature (Gopalakrishna et al., 2022; Salonen et al., 2021; Rapp et al., 2020; Rocco & Bush 2016). To extend the generalizability of our findings, future research should evaluate the effects of value co-creation on performance across different industries and firm types.

Third, our measure of value co-creation only included sales team members' perceptions and did not include the perceptions of value co-creation from the customers' point of view. To

account for both viewpoints in an interaction where value is co-created, future research should adopt a dyadic measure of value co-creation, incorporating perceptions from both buyers and sellers. Fourth, in a typical B2B sales process, value is co-created over time during ongoing interactions between salespeople and customers. However, due to the cross-sectional nature of the data used in our study, we were likely unable to fully capture the effects of value co-creation over time. Future research should adopt a longitudinal approach to offer a granular perspective of value co-creation effects on performance.

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Figure 1: Conceptual Model

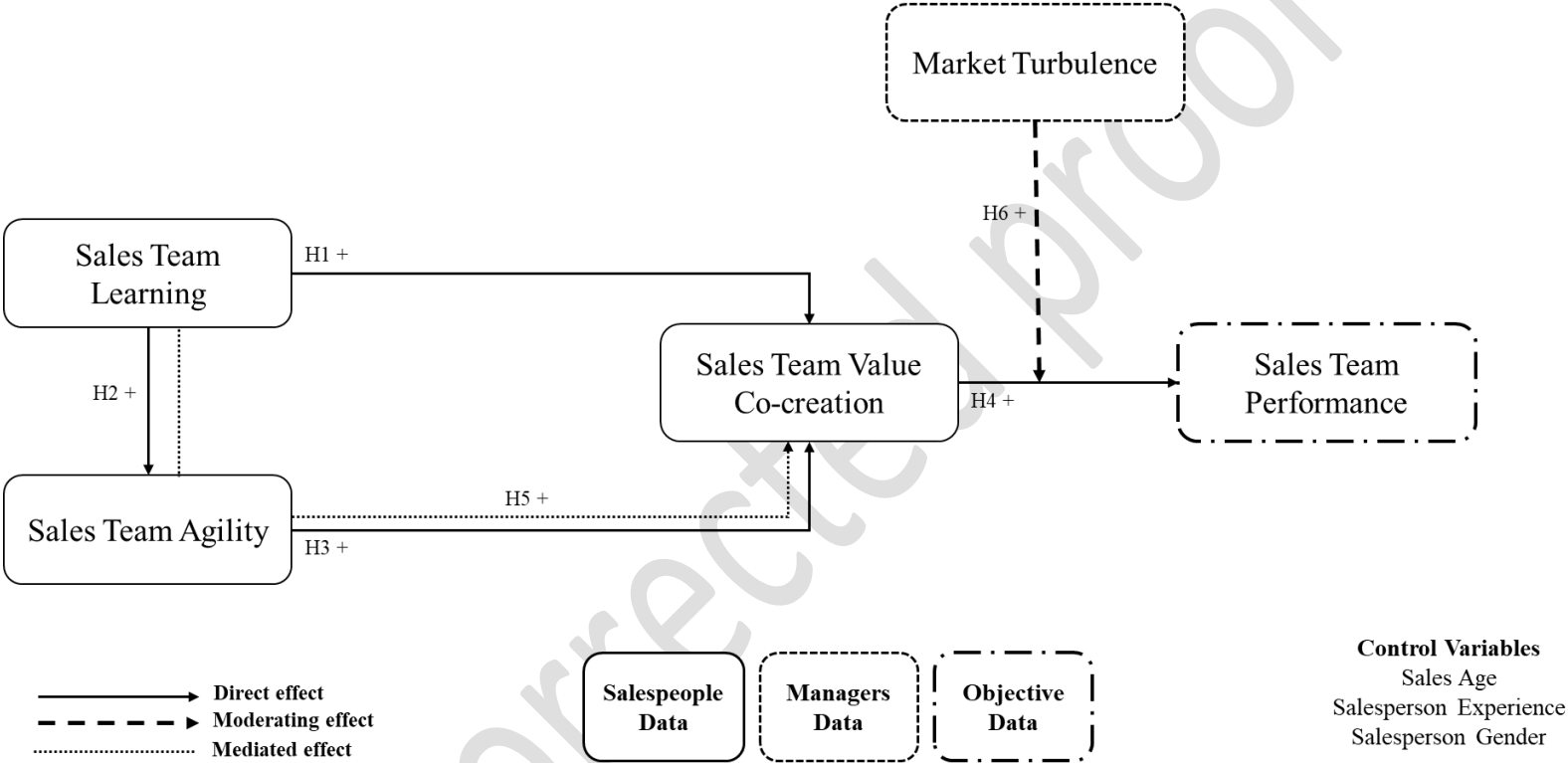
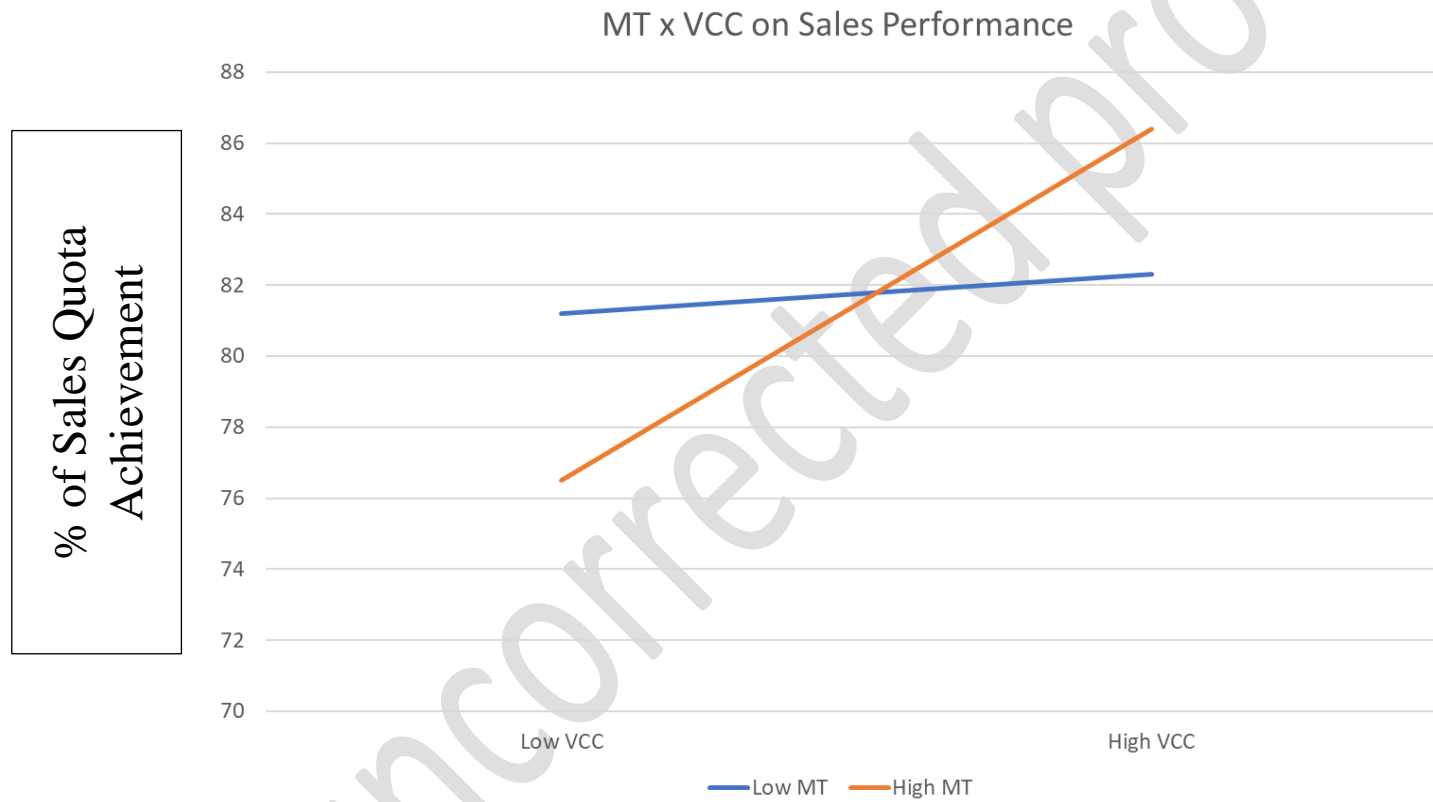


Figure 2: Moderating Effect



MT = Market Turbulence.

VCC = Sales Team Value Co-creation.

Sales Performance is measured as Percentage of Sales Quota Achievement.

Table 1: Correlation Matrix and Reliability

	1	2	3	4	5	6	7	8
1. Sales Team Learning	.88							
2. Sales Team Agility	.22*	.79						
3. Sales Team Value Co-Creation	.60**	.59**	.85					
4. Sales Team Performance	-.01	.57**	.19*	-				
5. Market Turbulence	.19*	.02	-.17*	.01	.74			
6. Salesperson Experience	-.18*	.05	-.09	.06	-.06	-		
7. Gender	.06	.06	.18*	.09	-.07	-.13	-	
8. Age	-.16*	-.01	-.06	.04	-.11	.80**	-.08	-
R _{wg}	.85	.87	.74	-	-	-	-	-
Composite Reliability	.91	.93	.94	-	.78	-	-	-

*Correlations significant at $p \leq 0.05$.

** Correlations significant at $p \leq 0.01$.

Square roots of average variance extracted (AVE) shown on diagonal. R_{wg} = index of interrater agreement.

- Not applicable

Table 2: Results

Hypothesis	Independent	Dependent	Path Coefficient	Results
H1 (+)	Sales Team Learning	Sales Team Value Co-Creation	.48**	Supported
H2 (+)	Sales Team Learning	Sales Team Agility	.22**	Supported
H3 (+)	Sales Team Agility	Sales Team Value Co-Creation	.49**	Supported
H4 (+)	Sales Team Value Co-Creation	Sales Team Performance	.15*	Supported
H5 (+)	Indirect effect of Sales Team Learning through Sales Team Agility	Sales Team Value Co-Creation	.11*	Supported
H6 (+)	Market Turbulence X Sales Team Value Co-Creation	Sales Team Performance	.25**	Supported

* Paths significant at $p \leq 0.05$.

** Paths significant at $p \leq 0.01$.

Appendix: Measures, Construct Items and Loadings

Construct Name and Indicators	Indicator loadings
Sales Team Learning (adapted from LeMeunier-FitzHugh and Piercy 2007)	
We believe that employee learning is an investment, not an expense.	0.96
We believe that the sales process is improved through learning.	0.97
Our future sales success is at risk if we stop learning.	0.69
Sales Team Agility (developed from Chonko and Jones 2005)	
I view changes in customer preferences as an opportunity rather than a threat.	0.75
I effectively anticipate customer problems or opportunities.	0.65
I successfully respond to changes in customer circumstances.	0.77
I use market knowledge to provide valuable solutions to customer's problems.	0.92
I always stay alert to customers' demands.	0.85
I proactively anticipate and develop suggestions for future customer needs.	0.66
I am always willing to offer a rapid response to customer problems.	0.86
I am always alert to signals pertaining to changes in my accounts.	0.82
Sales Team Value Co-Creation (adapted from Ettlé and Reza 1992; Walter et al. 2001)	
We involve customers in decisions concerning product development and manufacturing.	0.88
We share the technology of our new systems with customers.	0.93
We change product standards to benefit customers.	0.83
We engage in the joint development of production processes with customers.	0.83
We engage in the joint development of new products with customers.	0.87
We involve our customers in the testing of prototypes.	0.72
Market Turbulence (adapted from Jaworski and Kohli 1993)	
In our business, customers' product preferences change quite a bit over time.	0.82
Our customers tend to look for new products all the time.	0.89
We are witnessing demand for our products and services from customers who have never bought them before.	0.45
New customers tend to have product-related needs that are different from those of our existing customers. (dropped)	0.02
We cater to many of the same customers that we used to in the past. (dropped)	0.19