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Systematic Review

Co-Creation with AI in B2B Markets: A Systematic Literature Review

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Abstract: Artificial intelligence (AI) has significantly disrupted B2B markets, impacting companies at the product, service, and organizational levels. A key focus is on how to leverage the power of AI to augment and automate activities to create value for customers. One specific form of value creation investigated in marketing is co-creation between parties. Introducing AI into the co-creation process is exciting due to its technological characteristics and the anticipated business value it can bring. This study explores the state of the art in co-creation with AI in B2B markets. It examines how buyers, suppliers, and technology providers interact, along with their motives and characteristics. Furthermore, it investigates the processes enabling these interactions, from the form of AI used and AI tool integration to the necessary capabilities of other actors involved. Finally, this study examines the content of co-creation described in the existing literature and the value created jointly. This review contributes to delineating the interaction between human and non-human actors in a B2B co-creation ecosystem. The implications of this research provide B2B companies with a discussion about the actors, motives, characteristics, processes, and content of co-creation with AI in B2B drivers and barriers of AI for co-creation, mapping the way for success.

Keywords: artificial intelligence; co-creation; B2B; business-to-business; expert knowledge; interaction; trust; collaborative integration; capabilities; resources

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1. Introduction

Evidence has indicated that 90% of marketing professionals in 35 diverse countries had adopted various AI tools to streamline processes [1]. To date, AI can conduct descriptive, predictive, and prescriptive analytics depending on the data type, the degree of development, and the algorithm applied, but the emergence of generative AI challenges the status quo [2–4]. In contrast with previous AI applications, which are mostly designed to recognize patterns and make predictions, generative AI models can generate new content or output in the form of text, audio, and images, depending on their application. Recent research has shown the data-driven potential of generative AI to augment human innovation teams [5], and conversational agents are pushing the boundaries of customer service, with many opportunities still waiting to be explored [6,7].

McKinsey and Company's AI report [8] revealed that 40% of the respondents planned to boost AI investment due to generative AI advancements, while the Deloitte Center for Integrated Research [9] anticipated a twofold increase in generative AI investments every two years for the next decade. It is assumed that, as a company, one key to profiting from the advances in AI is to provide AI with internal company-specific expert knowledge alongside their general knowledge [10]. While there have been many good reasons before the age of AI to create and manage company knowledge bases, AI, especially in the form of large language models (LLMs), have facilitated the usability of this knowledge.

For business-to-business (B2B) marketers, one of the most interesting questions of the next few years will be how to use the power of AI to augment and automate their activities to create value for their customers. It is well known that B2B buyers value the aspect of

co-creation with their suppliers [11]. Value co-creation theory highlights the importance of collaboration and the integration of resources for a win–win situation in a commercial relationship [12–14]. Previous research has found that personal relationships are beneficial for value co-creation [15,16]. At the same time, AI might be a new facilitator with which to enhance value co-creation [17], and has been described as a dynamic tool that empowers and interconnects participants in collaborations [18]. This emerging AI landscape raises numerous questions, from the skills humans need to maximize its potential to how B2B ecosystems can leverage it and how AI can be utilized for value co-creation. All these gaps lead this work to the following research question: *What is the current state of the art of co-creation with AI in B2B?*

Therefore, this work investigates the potential of AI in value co-creation in B2B markets. With the purpose of exploring the state of the art of co-creation with AI in B2B, this study conducts a systematic literature review [19,20]. This review contributes to providing an overview of this nascent phenomenon. We investigate the core concepts of co-creation with AI in a B2B setting and try to create awareness of the current literature in this field, highlight interesting research questions, and guide practitioners in the field. Specifically, this study contributes to identifying the key components of B2B ecosystems where AI facilitates and enhances co-creation. The implications of this research provide B2B companies with a discussion about the actors, motives, characteristics, processes, and content of co-creation with AI in B2B, mapping the way for success.

2. Artificial Intelligence in B2B Marketing

Historically, AI referred to the mathematical term expert systems, where human intelligence is formalized and reconstructed in a top-down approach as a series of "if-then" statements [21,22]. These techniques work insofar as formalization is sufficient to solve a task. However, expert systems, sometimes also referred to as knowledge-based systems, lack the ability to interpret external data, which means they do not learn from data and are thus referred to as "weak AI" [23,24]. Some researchers even argue that these are not part of today's AI, since they lack the skill to learn autonomously from external data [25].

Later, artificial neural networks (ANNs) were created, which include a learning process whereby historical data are used to train a model. To be sure, for many years it was not possible to perform such a training process due to a lack of computer processing power. However, this has changed with rising computer power, and, in 2015, AlphaGo, a Google algorithm for the board game Go, beat the human world champion at that time. The algorithm used was based on deep learning, which is related to ANNs. This event excited researchers in various fields, with many proving thereafter that AI can create business value [26]. This boost in research led to many new research lines, terms, definitions, methods, and applications of AI.

In this context, the term machine learning (ML) became a popular term with which to describe the broader field of developing algorithms that can learn patterns and relationships in input data and use them to make predictions or decisions without being explicitly programmed. ML algorithms are typically organized based on the desired outcome of an algorithm [27]. ANNs and deep learning are subsets of ML, which has arguably become the most popular and widely used AI technique in business [28]. It is supposed to be the core technology behind most of the visible advances in AI, including generative AI [29]. The ML paradigms in which neural networks are trained can be classified as supervised, unsupervised, and reinforcement. The algorithms used will depend on the problem formulation and type of data. Data can be structured and unstructured, and can be presented as text, numerical, and audiovisual data.

In the autumn of 2022, the publication of ChatGPT, a browser-based software, by the company OpenAI, again created another moment of excitement for researchers as well as practitioners [2]. The company used so-called large language models (LLMs), which are trained on vast amounts of text data, allowing them to perform a wide range of language-related tasks, such as translation, summarization, text generation, and more.

The models used are still based on deep learning principles, but by using the technique of transformer architectures the models achieve their impressive language-processing capabilities. Generative AI is described as a transformative AI tool that uses deep learning architectures to output new content in response to a human-created prompt [2,3,30].

In the business field, AI is defined as "*a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation*" [25] (p. 17). The B2B literature shows that AI applications have been used for different purposes, such as for sales prediction [31]; for lead generation based on natural language processing [32]; or to help salespeople in decision making for negotiations [33,34]. Hence, the B2B field agrees on the disruptive role of AI in human augmentation or automation [35,36].

3. Co-Creation and Artificial Intelligence

Early on, AI as technology raised the question of its coexistence with humans on a philosophical, but also practical level. In marketing research, the concept of value co-creation became a popular theory to describe interactions between two parties to jointly create value [12–14]. The use of interaction is considered as a basis for co-creation [13] (p. 5). In this vein, co-creation has been defined as a function of interactions between customers and firms [37]. Despite the passage of time, interaction continues to play a key role in engaging customers and firms in value co-creation [38].

Adding AI into the concept of co-creation might create excitement. AI's ability to process vast amounts of data to create information or predict outcomes seems to be a powerful tool to co-innovate together or facilitate co-creation processes. One of the earliest publications with this idea is [39], investigating how IBM Watson prompts new service provisions and the emergence of new interactions between humans and AI. Their research gives examples and ideas on how humans and AI (in the form of Watson's NLP technology) might co-create and innovate together. With the premise that innovation is not the outcome anymore, but a way to co-create value, the authors point at AI as a new way to connect actors [39]. For example, the connection and interaction between actors' data systems in this AI-connected ecosystem allow collective knowledge creation [39]. In this way, buyers and suppliers can transfer data and perform valuable real-time analysis. Since then, several publications in business-related research disciplines have emerged, with many of them also focusing on the idea of AI as a facilitator for co-creation [18].

4. Materials and Methods

This study conducts a systematic literature review with the purpose of exploring the state of the art of AI in B2B co-creation [19,20]. This study follows the PRISMA guidelines (see Supplementary Materials) to identify the existing literature; to screen the records and assess the eligibility based on the inclusion and exclusion criteria; and, finally, to show the final records included [40].

This systematic literature review was conducted in two databases, Scopus and Web of Science. The search string keywords retained the three main topics of interest: artificial intelligence, value co-creation, and B2B ("AI" OR "Artificial intelligence" AND "Co-Creation" OR "co-creat*" AND "B2B" OR "Business-to-business" OR "industrial marketing"). In a first initial search round, the keyword search was focused on the title, abstract, and keywords of the publications. There was no filter regarding the year nor the language of the publications. Moreover, all types of publications were considered (journal articles, conference papers, book chapters, etc.). The initial search string from Scopus identified 12 existing publications, while Web of Science identified 7. After removing duplicates, 12 publications were screened and assessed for eligibility. In the second search round, the search string was replicated with keywords related to the B2B context located in the full documents, not only in the title, abstract, and keywords. This time, the Scopus output contained 97 results. The 12 publications from the initial search were also included, bringing the total to 85 new

publications. Therefore, the final dataset consisted of 97 publications. The database search was conducted in July 2024.

The inclusion and exclusion criteria were based on matching with the three main topics of interest. This means that publications had to be on AI for co-creation in the field of B2B. The authors screened the publications in two steps: first, the 12 publications from the initial search were screened; second, the remaining 85 publications from the second search were screened. In the first step, 3 publications were excluded from the database because their field of research was computer science, making them outside the scope of this literature review. After this exclusion, the authors screened the full text of the 9 publications and 2 more were excluded because the topic was not the focus of this research. Finally, 7 publications were included in the final database. In the second step, the 85 publications from the second search round were screened for eligibility. Of these, 82 were excluded because they were either not contextualized in B2B, not focused on AI for co-creating value, or primarily concerned with computer science rather than business applications. Nevertheless, we identified 3 more publications that were relevant for the scope of this work, resulting in a final dataset of 10 publications. Figure 1 shows a PRISMA flow diagram for new systematic literature reviews, based on [40].

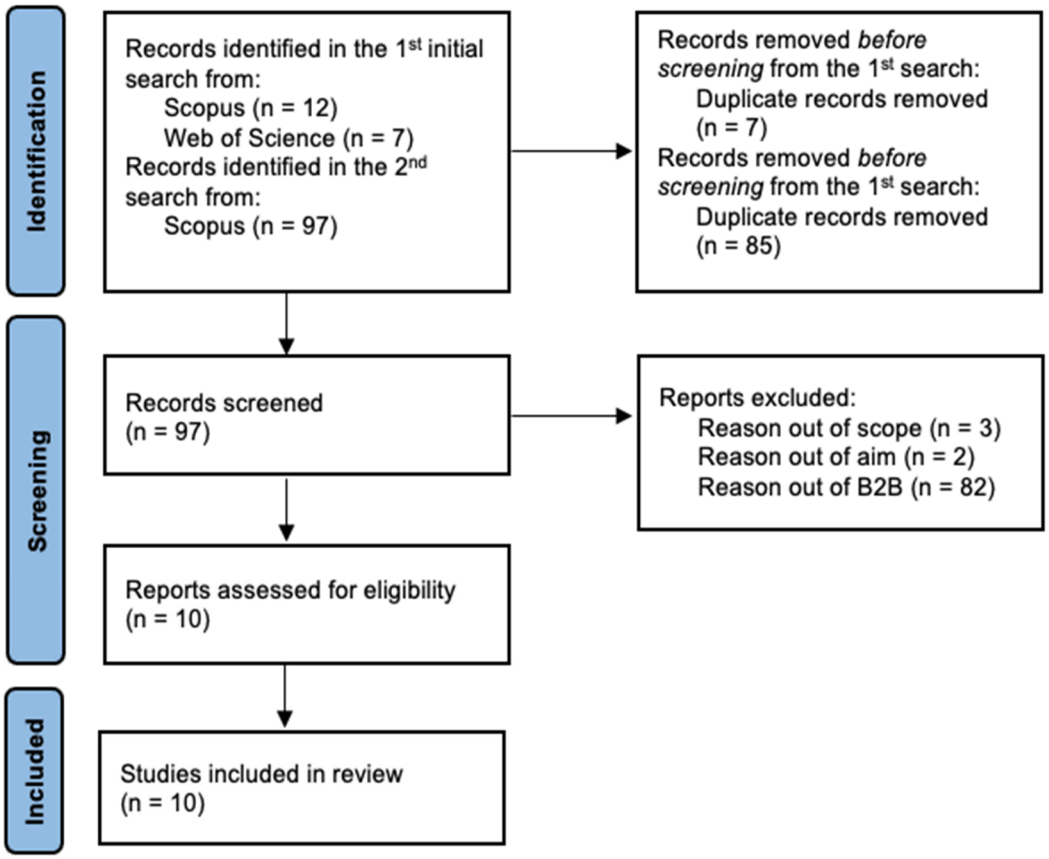

Figure 1. PRISMA flow diagram.

5. Results

5.1. Descriptive Analysis

The selected publications of this systematic literature review are shown in Table 1. The final dataset includes 10 publications, which included nine journal articles and one book chapter. Out of the six journal publications, three were published in *Industrial Marketing Management*, two in the *Journal of Business Research*, one in the *Australasian Journal of Management*, one in the *Journal of Business & Industrial Marketing*, one in the *Journal of Purchasing*

and Supply Management, and one in *Sustainability*. Publications range in terms of year from 2020 to 2024, with four publications in 2021 and three in 2022.

Table 1. Descriptive analysis of publications on co-creation with AI in B2B.

Authors	Type of Study	Focus of the Study	Key Findings Related to This Work
[41] Aquilani et al. (2020). *S*	Conceptual	Role of *open innovation* and value co-creation in a more social and global well-being industry	Open innovation and co–creation are enabling mechanisms for transformation. AI acts as a "guide" in the process
[42] Barile et al. (2024). *JB&IM*	Conceptual	Proposing the concept of *intelligence augmentation* in the search for decision-making capabilities that empower humans in value creation	Collaborative integration between AI and humans during interactions to empower value co-creation in a complex decision-making context
[43] Kot and Leszczyński (2022). *IMM*	Qualitative (case study; six in-depth interviews, two focus groups, and secondary data)	Value co-creation around AI-based conversational agents in customer service	Interdependence of actors, resources, and activities AI-activated value is dynamic, context-dependent, and fuzzy
[10] Leone et al. (2021). *JBR*	Qualitative (case study; four in-depth interviews and secondary data)	How AI enables and enhances value co-creation in B2B	Propose two iterative loops: (1) to connect providers with customers; (2) to connect customers with patients
[44] Li et al. (2021). *IMM*	Qualitative (case study; 19 in-depth interviews)	Co-creation types and capabilities needed to create value with AI in B2B	Describe four value types: strategic co-planning value, functional value, intra- and inter-organizational learning value, and customer experience value, as well as three sets of capabilities: system management capabilities, commercialization-based capabilities, and interpersonal capabilities
[17] Paschen et al. (2021). *AJM*	Qualitative (14 in-depth interviews)	Generation of competitive intelligence with AI and human curators for salespeople	Describes activities (value created by AI and value created by humans), actors (bot, curators, and consumers) and resources
[45] Petrescu et al. (2022). *IMM*	Qualitative Quantitative (secondary data: annual reports)	AI-based innovation in B2B marketing, offering an integrative framework	Reveal four key analytic components: (1) IT tools and resource environment, (2) innovative actors and agents, (3) marketing knowledge and innovation, and (4) communications and exchange relationships
[46] Raghupathi et al. (2022). *BC*	Qualitative (case study; in-depth interviews)	How AI contributes to value co-creation and marketing knowledge in B2B marketing and sales	Contributes to customer knowledge, user knowledge and external market knowledge
[47] Sjödin et al. (2021). *JBR*	Qualitative (case study; 42 in-depth interviews)	B2B firm capabilities needed for successful AI implementation	Agile co-creation processes with customers as a key capability in AI-driven business model innovation
[48] Wei and Pardo (2024). *JPSM*	Qualitative (case study; 21 in-depth interviews)	Mechanisms to leverage a supply network platform co-creating value with AI	Identify three mechanisms to achieve resource density: optimizing data sources, restructuring the platform, and shaping the supply network

Note: *AJM* = *Australasian Journal of Marketing*; *BC* = book chapter; *IMM* = *Industrial Marketing Management*; *JB&IM* = *Journal of Business & Industrial Marketing*; *JBR* = *Journal of Business Research*; *JPSSM* = *Journal of Purchasing and Supply Management*; and *S* = *Sustainability*.

5.2. Thematic Analysis

To conduct the thematic analysis of the literature investigating co-creation with AI in B2B markets, we used the approach of value co-creation as interaction [49]. While there might be alternatives to this presentation, it allowed us to describe and present the content of the literature in a clear way. Figure 2 presents a graphical illustration of the understanding and overview of the interaction. In general, B2B markets—and the associated research—typically involve at least two parties: a buyer (Company A) and a supplier (Company B). Furthermore, with the nature of this research question, there is an AI tool involved in the interaction. The AI tool is developed or provided by a technology provider (Company C).

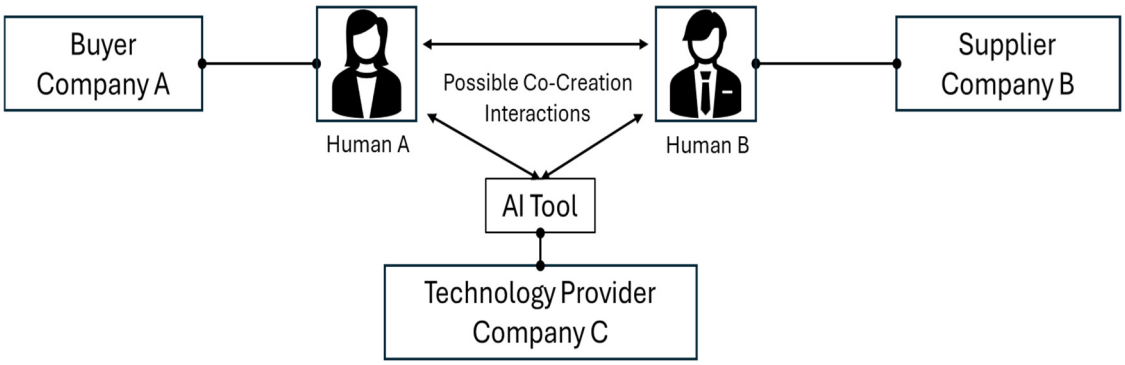

Figure 2. Co-creation with AI in B2B markets as interaction (authors' own illustration).

However, it sometimes happens that Supplier B also provides the AI tool, thereby assuming both roles in the interaction. While it is possible for Buyer A to provide the AI tool, this scenario was not found in the literature we reviewed. Typically, humans play a crucial role in the co-creation process. Interactions can occur between humans from both Company A and Company B with the AI tool, as well as in a bi-directional manner. For instance, a human from Buyer A might request information from the AI tool, or a human from Supplier B might fine-tune the AI tool with their expertise to meet the needs of Buyer A.

In the next step, we provide three subsections that provide an overview of the value co-creation ecosystem with AI in B2B. Each subsection focuses on an aspect of co-creation as interaction: First, the actors, motives, and characteristics, analyzing with whom and why the interaction occurs. Second, we focus on the process itself, analyzing how and with what tools co-creation worked. Third, content in the form of what value is aimed to be co-created is examined.

5.2.1. Co-Creation with AI in B2B: Actors, Motives, and Characteristics

The value co-creation ecosystem involves actors, resources, and activities [17,43]. The review studies indicate that when co-creating with AI in a B2B ecosystem, three main actors are involved: suppliers, customers, and technology providers [44]. A typical relationship between them is that the technology provider (C) sells its AI tools to their client (Supplier B), who introduces the tool in the form of a software agent into its structures where its customers (Buyer A) will interact with the agent [43,44]. However, it is also common that Supplier B acts as a technology provider for the AI tool at the same time [10,42,45,46]. While this might impact the motives and characteristics of the actor, this does not change the setting of a co-creation process including AI, as value is created between three parties: the AI tool, the supplier introducing the tool, and a buyer interacting with it.

In any case, collaboration between human resources, technology, and business organizations is needed [45]; in particular, the authors identified four key analytical components: (1) IT tools and resource environments, (2) innovative actors and agents, (3) marketing knowledge and innovation, and (4) communication as well as exchange relationships.

In the co-creation ecosystem, the interaction between the actors permits the exchange of external market knowledge, customer knowledge and user knowledge [10,46]. In any case, it must be considered that, in the current AI-based situation, governments are also part of the B2B ecosystem [45].

Overall, to integrate the actors and resources in a collaborative ecosystem, technical capabilities, as well as interpersonal capabilities, are needed [42,44]. Technical capabilities refer to the knowledge to interact and interpret AI interactions. Knowledge and learning capabilities are identified as needed to properly implement AI [45,47]. Examples of these technical capabilities can be related to computer science, such as data pipeline capabilities, algorithm development capabilities, and AI democratization capabilities [47], but also to business informatics, such as system management capabilities and commercialization-based capabilities [44]. Interpersonal capabilities are associated with the soft skills in the B2B ecosystem where actors interact with AI. Examples of these soft skills are empathy, listening, cooperation, communication, relationship and conflict management, and so on [42]. However, at the same time, these required capabilities are associated with some barriers for co-creation, such as having sufficient confidence of matching customers' needs, properly advancing in the mixing analysis from a descriptive to predictive orientation, and creating a collaboration ecosystem where data can be stored, analyzed, and interpreted [45]. In this line of thought, B2B firms must match other party needs, to focus on prescriptive instead of descriptive analysis and to build ecosystems that enable data-driven solutions [45].

Table 2 shows the relationship between the actors, motives, and characteristics of value co-creation with AI in B2B.

Table 2. Actors, motives, and characteristics.

Authors	Thematic Analysis of Actors, Motives, and Characteristics
[41] Aquilani et al. (2020). *S*	All possible interactions between humans from Buyer A and Supplier B, as well as human-to-non-human interactions with AI tools used to improve companies' own strategic decision-making processes
[42] Barile et al. (2024). *JB&IM*	AI tool is described as an autonomous software assistant by Supplier B, used in interactions with Buyer A. It is introduced to empower co-creating value in complex decision-making contexts for human decision makers
[43] Kot and Leszczyński (2022). *IMM*	Supplier (B) purchases AI tool of Technology Provider (C). Supplier (B) aims to create value throughout the full buyer supplier interaction, in the form of the efficiency of processes and information but also the automation of tasks
[10] Leone et al. (2021). *JBR*	Supplier B (also in the role of Technology Provider C) provides and charges Buyer A from B2B healthcare for AI tools based on their internal data. Buyer A profits from external market knowledge incorporated in AI tools, as well as delivered through experts at Supplier B
[44] Li et al. (2021). *IMM*	IT consulting firm is Technology Provider C for an AI tool to facilitate collaboration between Buyer A (manufacturer) and Supplier B (materials supplier)
[17] Paschen et al. (2021). *AJM*	Supplier B (also in the role of Technology Provider C) provides and charges for a combination of human consultants and AI tools to create informational value for a salesperson at Buyer A
[45] Petrescu et al. (2022). *IMM*	Value co-creation between B2B market actors is proposed as essential for AI-based innovation in B2B marketing
[46] Raghupathi et al. (2022). *BC*.	Supplier B (also in the role of Technology Provider C) develops an AI tool to interact with its potential clients (Buyer A)
[47] Sjödin et al. (2021). *JBR*	Focuses on the interaction between Technology Provider C and its customers to build better AI solutions
[48] Wei and Pardo (2024). *JPSM*	Technology Provider C runs a supplier platform supply network supporting its users, Supplier B and Buyer A, with AI tools

5.2.2. Co-Creation with AI in B2B: Processes

During the co-creation process, two types of activities can be found: the ones needed for the implementation of the process, and the ones that are performed to create value [43].

In this section we are focusing on findings regarding the implementation of the process, the environment, and the specific setups for a co-creation process involving AI. To enhance co-creation, it is important to create a collaboration ecosystem where knowledge, resources, and innovations can be shared with multiple actors [41,44]. The authors state that the best resources are not always in an organization and, to remain competitive, it is necessary to obtain external and internal ideas [42,44].

In B2B, co-creation is possible when iterative loops occur, offering parties the possibility to connect and interact [10]. This approach also focuses on interaction, firstly to connect providers with customers and secondly to connect customers with users to exchange external market knowledge, customer knowledge and user knowledge [10]. Table 3 shows how a co-creation with an AI process was described, designed, or setup in the reviewed literature to create value.

Table 3. Processes.

Authors	Thematic Analysis of Processes
[41] Aquilani et al. (2020). *S*	Not specified
[42] Barile et al. (2024). *JB&IM*	Not specified but exemplified as bot technology interacting with human customers
[43] Kot and Leszczyński (2022). *IMM*	AI is used as a bot technology (Conversational Agent) which is connected to the IT system of Supplier Company B, enabling the AI tool to act, not only informing other actors
[10] Leone et al. (2021). *JBR*	AI is used as data science software, applying algorithms to the database of Buyer A (here patient data) to predict and identify events. Additionally, Supplier B provides additional value in the interaction through domain experts
[44] Li et al. (2021). *IMM*	The three companies (A, B, and C) collaborate on AI development and usage to later profit jointly from better AI solutions based on their data and expert input
[17] Paschen et al. (2021). *AJM*	AI is used as bot technology to efficiently search, collect, categorize, and filter data; Human B contains and shares specific knowledge in using and managing the AI tool; and Human A consumes the information, applies it for business value, and provides feedback
[45] Petrescu et al. (2022). *IMM*	Not specified
[46] Raghupathi et al. (2022). *BC*.	AI is used as a bot, collecting the data, curating the data, and consuming the data to interact with potential clients
[47] Sjödin et al. (2021). *JBR*	Not specified, as co-creation is described as the bidirectional interaction between humans at companies
[48] Wei and Pardo (2024). *JPSM*	Technology Provider C leverages AI as technology to create and capture value from information and data provided by his platform users (Buyer A and Supplier B)

5.2.3. Co-Creation with AI in B2B: Content

In a twofold way, it can be considered that value can be created by AI and by humans [17]. In a detailed way, Petrescu et al. [45] (p. 69) suggests the role of (1) AI as a B2B marketing knowledge and innovation enhancer; (2) AI as a B2B collection of innovative actors and agents; (3) AI as a collection of information technology tools within the resource environment; and (4) AI as a communication and exchange facilitator. While [45] suggests that overall value is created in an ecosystem of innovative resources where actors interact and exchange knowledge, Li et al. [44] focuses on breaking down the concept of value and differentiates between four types of value classification: AI in B2B creates (1) strategic co-planning value, (2) functional value, (3) intra- and interorganizational learning value, and (4) customer experience value [44]. Others revise the type of value that can be created in terms of informational, transactional, transformational, strategic, and infrastructural value [43,45]. Furthermore, the idea that AI can be of value for assisted intelligence, automated intelligence, augmented intelligence, and autonomous intelligence exists [42]. The authors reflect that, in all these AI categorizations, interactions with humans are needed; these interactions go beyond the mere extension of human capabilities to "collaborative integration". In a similar vein, when using conversational AI agents, the value goes be-

yond the service process by gaining knowledge from behavior data, developing strategies, integrating systems, and so on [43]. Table 4 shows a summary of the content of co-creation described in existing literature and the value created jointly.

Table 4. Content.

Authors	Thematic Analysis of Content
[41] Aquilani et al. (2020). *S*	AI allows for the re-elaboration of information collected through big data and supports the diffusion of open innovation in companies by creating virtuous circles between individuals interacting with external data and the AI tool
[42] Barile et al. (2024). *JB&IM*	AI allows smarter decisions by interactors (problem solving) but also wiser decision making, which lead to co-creation
[43] Kot and Leszczyński (2022). *IMM*	The AI tool has several tasks, enabling frontline employees at Supplier (B) as well as their customers, Buyer (A), with informational value. Furthermore, the AI tool can act independently to proceed transactions in customer service and create strategic value in interactions between suppliers and buyers (such as for translations, the standardization of processes, or the simplification of tasks). Moreover, it can have a transformational character for Supplier B aiming to automating Human B
[10] Leone et al. (2021). *JBR*	AI creates value in analyzing the user data (e.g., patients) of Buyer A and predicting relevant events (e.g., health problems)
[44] Li et al. (2021). *IMM*	By co-creating, the actors develop better AI and benefit from strategic co-planning value and joint organizational learning. Additionally, they benefit through the AI solutions themselves, creating functional value and value in customer experience
[17] Paschen et al. (2021). *AJM*	Creation of specific marketing-related information (e.g., competitor data), enabling Human A in his role as a salesperson
[45] Petrescu et al. (2022). *IMM*	Proposes a co-creation-based approach for every AI for B2B marketing innovation
[46] Raghupathi et al. (2022). *BC*.	The AI tool is used for creating customer profiles, data management, predictive models for prospect scoring, chatbots, text analysis, NLP, and competitive intelligence, among others
[47] Sjödin et al. (2021). *JBR*	Not specified
[48] Wei and Pardo (2024). *JPSM*	AI tools enhance the value of co-creation at both the platform and network level. This is achieved through AI's ability to process large amounts of data and efficiently extract as well as predict information

6. Discussion and Conclusions

This work explored the role of AI in value co-creation in B2B markets. This systematic literature review presented the state of the art in co-creation with AI in B2B markets, highlighting that there are currently only 10 relevant publications. This small number of publications determines that the topic is in its nascent stage, for both academia and industry. Therefore, this study contributes to pave the way for understanding what the actors, motives, and characteristics are that take place in the processes and creation of content, which brings value to this new B2B ecosystem. Nevertheless, the first conclusion of this work is the determination of a lack of research in the field. Today, accessibility to powerful AI models, especially in the form of generative AI bots, being able to be prompted with natural language, offers huge potential for B2B co-creation processes. While research into the automation potential of this technology is skyrocketing, only little research exists on the "augmentation", "empowering", and "creativity" parts of AI in years-old, trustful, and fruitful business interactions.

The literature points at three main actors in co-creation interactions: the buyer (A), the supplier (B), and the technology provider (C), although it can be the case that (B) and (C) are the same actor. However, especially in the field of generative AI, there are currently only a few big tech players (e.g., OpenAI, Google) able to deliver high-quality large language models and thereby dominate the market. This externalization of the technology provider (C) can entail an increase in privacy concerns. Moreover, when the buyer (A) and the supplier (B) are not in the same geographical region as the technology providers (C) that

dominate the market, their ethical considerations and data protection laws as well as regulations do not always follow similar security standards. This finding could be a barrier for using AI in value co-creation in B2B. At the same time, the more efficient and powerful AI models, the more data are shared with them. Historically, many B2B players were secretive about their technology, cost structure, innovation processes, and supplier network. Introducing a third party (Technology Provider C) into the buyer–supplier relationship will cause a perceived and real risk in the form of compliance and privacy concerns. Therefore, we advise researchers to keep an open eye on this issue and practitioners to carefully choose who they will trust to introduce the AI into their co-creation process.

One of the key takeaways from this work is that value creation is always an interdependence between actors, resources, and activities [10,17], to such a point that it is said that value is created based on how resources are connected. Hence, interactivity plays a crucial role and researchers as well as B2B practitioners are advised to carefully design, investigate, and test their processes when introducing AI into a co-creation setting. For example, success of the co-creation process highly depends on the good integration of human activities and resources [17]. Likewise, while some technical and interpersonal capabilities are needed for AI implementation [42,44,45,47], the lack of these capabilities could cause failure. Therefore, when designing AI-based co-creation for B2B, it is essential to consider the potential for co-destruction by cooperating humans. While this has been investigated in the context of co-creation with intelligent assistants (e.g., service robots) in the consumer market [50], the potential effects of co-destruction and guidelines for designing positive value co-creation remain unexplored in the B2B market. Therefore, future lines of research should explore how to create an optimal B2B ecosystem where AI empowers co-creation. This work contributes to identifying the pieces needed in such an ecosystem: actors involved in the interaction process, motives and characteristics that enable a collaborative integration of resources, and knowledge exchange. Due to the qualitative or conceptual nature of the identified publications in this literature review, the next step in this topic calls for further research that empirically tests how AI can contribute to value co-creation in B2B.

Lastly, our research leads to one interesting conclusion: the boundary between AI as a technology with a specific functionality and AI as a tool for co-creation is often blurry. AI can co-create in all stages of the sales funnel: prospecting (lead qualification, generation models), pre-approach (advertising, retargeting), approach (digital agents, content curation), presentation (sentiment analysis, prototyping), overcoming objections (competitive intelligence), closing (dynamic pricing), and follow-up (chatbot, automated workflows) [46]. Only through its functionality it appears to co-create value by the powerful tasks it can perform. At the same time, AI remains a technology based on algorithmic functionality, and the decision to classify an interaction between humans and an AI tool as "co-creation" often depends on the authors' perspective. Table 5 shows a list of proposals for a future research agenda based on this systematic literature review.

Table 5. Proposals for a future research agenda.

	Research Proposals
Actors, motives, and characteristics	• How do AI tools impact the roles and responsibilities of buyers and suppliers in B2B co-creation? What shifts in power dynamics occur when AI is introduced into the co-creation process? • Relationships are paramount in B2B. How do buyers perceive the introduction of AI tools into the co-creation process? • Can we trust Technology Provider C? What are the implications if companies like Google and similar organizations assist us in co-creating value with their AI tools?
Process	• How do privacy and compliance considerations affect the AI–buyer–purchaser relationship in virtual co-creation? • How do different industries within the B2B sector vary in their adoption and application of AI for co-creation? • How does the use of AI in co-creation influence the quality and speed of innovation in B2B markets? What metrics can be used to measure the impact of AI on co-creation outcomes?

Table 5. *Cont.*

	Research Proposals
Content	• What constitutes the functionality of an AI tool, and how is it distinct from an AI value co-creation interaction? Can we establish a clear distinction? • What are the long-term impacts of AI-driven co-creation on B2B business models and competitive advantage? Does it influence the sustainability and scalability of co-created solutions?

7. Limitations

While this study provides valuable insights into co-creation with AI in B2B markets, it is important to recognize certain limitations that may have influenced the findings and their generalizability. First, the development and capabilities of AI in the earliest work in 2020 differ significantly from those in 2024 due to rapid advancements in AI technology. This evolution can impact the relevance and applicability of definitions and findings, as the power and functionality of AI tools continue to change over time. The results of this study might be not applicable to the current AI landscape of the future. Second, as a literature review, this study uses secondary data. Therefore, a follow-up study would benefit from empirically testing primary data that allow inferring practical implications in real life. Third, the literature review was conducted manually, allowing for a more nuanced and in-depth analysis of the selected studies. However, this approach, while thorough, may lack the scope of automated keyword-based analytics.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/su16188009/s1, PRISMA Checklist [51].

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