

ANTECEDENTS OF CONSUMER ENGAGEMENT IN CO-CREATION OF INNOVATION – LITERATURE REVIEW

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Purpose: Taking into consideration an important role of consumer participation in co-creation of innovation as well as the emergence of many virtual spaces for this process, present paper aims to answer the question what drives a consumer value co-creation of innovation in the context of virtual environment.

Methodology: The author conducted a systematic literature review covering research papers from period 2015-2025. For searching reviewed articles the Scopus database was used. Only top tier journal from AJG 2020 list was included into analysis.

Findings: Antecedents of co-creation of innovation can be associated with extrinsic motivations and intrinsic motivations. Extrinsic motivations are monetary oriented whereas intrinsic motivations include: enjoyment of contributing, need of social interactions (contact with people, social recognition), desire to make contribution (or empowerment), learning (acquiring knowledge), ability to co-create (customer knowledge and skills), and perceived risk of co-creation.

Research limitations/implications: The publication search procedure presented in this paper uses only the Scopus database. The use of ABS list as criterion could cause that some publication in journals were omitted.

Practical implications: Collaboration between companies and consumers in co-creating innovation brings many benefits, including generating new ideas, product development and reducing financial costs of market research. Understanding an individual motivations of consumers will allow companies to better design activities that maintain and encourage future cooperation.

Originality/value: The presented results allow us to establish the state of knowledge regarding the motivation why consumers engage in co-creating innovation. The context of the virtual environment as a space for collaboration is particularly important here.

Keywords: co-creation, innovation, user participation, consumer engagement.

Category of the paper: research paper.

1. Introduction

Nowadays, rapid technological progress is causing changes in consumers' preferences and lifestyles (Rubio, Villaseñor, Yagüe, 2021). The wide availability of the Internet in the last decade has changed the way of communication and information flow (Burri, 2010). At the same time, we can observe a growing trend of reluctance to purchase ready-made products and services from the company's existing offer (Bednarz, 2017). The DIY trend, namely "do it yourself", has gained popularity. People intentionally undertake activities, despite the awareness that the whole production process can be outsourced to external entities (Trivedi, Pandey, Trivedi, 2022). Customization and personalization of consumer products requires significant input from the consumer already at the design and production stage (Bruns, 2016).

Many online platforms are heavily used by producing consumers (Fuchs, 2014). For example Wikipedia, where users are constantly adding and editing content (Ritzer, 2010). Social media (e.g. Facebook, MySpace), where profiles are created with photos and videos, contacts are established and communities are formed, enable consumers to participate in new type activities and provide a new dimension of customers' empowerment. Companies have an opportunity to interact with customers more broadly and more richly in relatively short time. The virtual world constitute a space for communication between companies as well as consumers. Different brand strategies can be implemented with use of electronic discussion forums, chat rooms, or online communities. Despite many company initiative, online consumers' community can also get involved in building brand message. New forms of cooperation allow strengthen consumer and brand relationships and engagement (Fernandes, Remelhe, 2016; Ritzer, 2010). Internet users create a market on auction portals such as eBay and share own amateur movies on YouTube. Inside a computer games players introduce changes into character image and whole virtual environment (Ritzer, 2010). Producing unofficial game content (*game modding*) represents a significant source of innovation for game developers. Firms noticed potential in work of amateur creators and began to stimulate player creativity. They encourage modders to cooperation by providing wide range of tools dedicated to modders' community (Burger-Helmchen, Cohendet, 2011; Prügl, Schreier, 2006). It became very valuable asset for developers because modding reduce a significant part of costs associated with gathering and sharing knowledge, and product development in general (Burger-Helmchen, Cohendet, 2011).

When the customer takes an active role in preparing the composition and the delivery of company's offering the value is created (Solakis, Katsoni, Mahmoud, Grigoriou, 2024). Value co-creation is an interactive process that integrates parties with particular knowledge and skills for a mutually beneficial collaboration (Solakis, Peña-Vinces, Lopez-Bonilla, 2022). The partnership between a company and experienced consumers enables the development of systems, products or services, which is crucial to creating innovation. The success of many

companies is based on innovation (Seran, Izvercian, 2014). After worldwide economic crisis in 2007-2010 years, the old approach to consumption has been replaced by collaborative open innovation model. Smart and creative organizations are developing new open innovation strategies in collaboration with external partners. This allows for greater freedom of idea flow and faster product innovation. The trend towards creative collaboration among consumers, which is spreading in the virtual world, enable companies to co-create products or services with their own customers, in a relatively short time, with good management of goods and costs. This leads to increased customer engagement and satisfaction (Izvercianu, Seran, Buciuman, 2012).

Marketing scholars as well as practitioners recognized the significant role of customer participation in the process of building companies' competitive advantage (Cui, Wu, 2016). In current literature scholars emphasize a significant role of consumers in developing company's offer. It can be rank from valuable product improvement suggestions to technical knowledge of customers to generate numerous innovative ideas (Nambisan, Baron, 2009). It allows to bring customers closer to the brand. People feel more empowered and appreciated because they have sense of influence on shaping the company's future offer. Virtual customer environments constitutes services, that can be ranked from online discussion forums to virtual design and prototyping platforms. Virtual environment offer firms an opportunity to involve consumers in product design, testing, and product support activities (Auh, Menguc, Katsikeas, Jung, 2019).

Taking into consideration an important role of consumer participation, present paper aims to answering a question what drives a consumer value co-creation of innovation in the context of virtual environment. To meet the assumed goal the author conducted a systematic review of current literature.

2. Value co-creation

Co-creation is developing paradigm in the current management literature. The concept assume that suppliers and customers are no longer on the opposite sides but collaborate in order to achieve new business opportunities (Galvagno, Dalli, 2014). The value is created not inside the organization but through relationships outside the formal boundaries of company.

Value co-creation can be defined as a joint collaborative activity by parties involved in direct interactions, aiming to contribute to the value that emerges for one or both parties (Grönroos, 2012; Grönroos, Voima, 2013). The process contains an elements such as knowledge enhancement and exchange, skills acquisition, as well as organizational learning. It arise a sense of ownership to consumers as a result of their contribution to the value development (Solakis, Peña-Vinces, Lopez-Bonilla, 2022). The collaboration between

a company and experienced consumers contribute to the development of systems, products or services (Seran, Izvercian, 2014). The quality of interaction depends on the created unique experience that led to induce emotional attachments with company's offerings. Consumer sense of being part of its product development process help a to gain a competitive advantage to the organization (Solakis, Peña-Vinces, Lopez-Bonilla, 2022).

The service science approach proposed by Vargo and Lusch (2004) assumed that companies should not consider products that they sell as physical goods but from the point of view of the services associated with company's offer (Galvagno, Dalli, 2014). This assumption underlies the Service-dominant logic theory (S-DL) that is helpful in explanation consumers' behavior, especially answering a question how they engage with and assess services or products. In this context, individual's behavior is influenced by the factors such as customer experiences, interactions and perceived value co-created with service providers (Chandra, Rahman, 2024). Partnership with customers give an organization opportunity to learn from customers and prepare its offering according to their perceived value (Solakis, Peña-Vinces, Lopez-Bonilla, 2022).

3. Systematic literature review procedure

In order to meet the assumed goal, the author employed a systematic literature review covering the last 10 years of research. Systematic literature review is based on replicable and transparent steps. Before starting the search, several criteria for the inclusion of publications were established. At first, the papers should focus on cooperation between consumers and company and the value that they co-create together in terms of innovation. Articles need to consider antecedents of consumers' involvement in co-creation of innovation. Second, only empirical studies are eligible. The author included all types of research conducted in the investigated field, quantitative as well as qualitative. Third, only English written papers were selected. The choice of the English language allowed for the inclusion in the analysis of works that have been internationally assessed and function in the international scientific circulation. The result was limited to articles in peer-reviewed top tier journals form AJG 2020 list.

Utilizing Scopus database, the author has searched for all scientific papers published in the period from January 2015 to April 2025. With use of the "co-creation" and "innovation" key words, 1184 scientific papers in English language were found. Figure 1 presents a number of publications in different subject area.

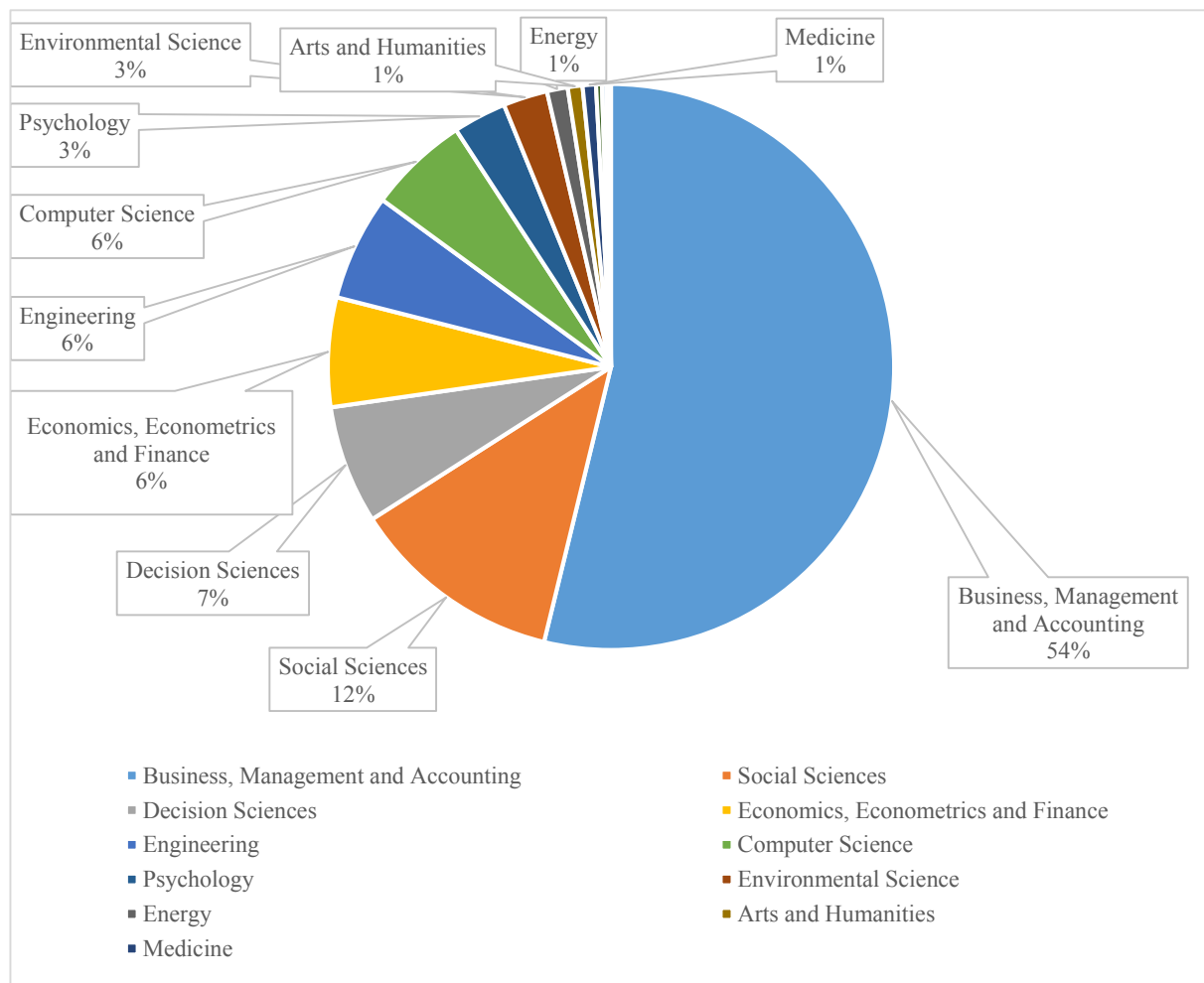


Figure 1. Number of articles published in journals across subject area.

Then, the results were limited to the field of business and accounting. In this area the author obtained 637 papers. Figure 2 shows the number of publications in the 10 years period. The growing trend, especially in 2024, indicate the increasing interest of scholars in customer co-creation of innovation.

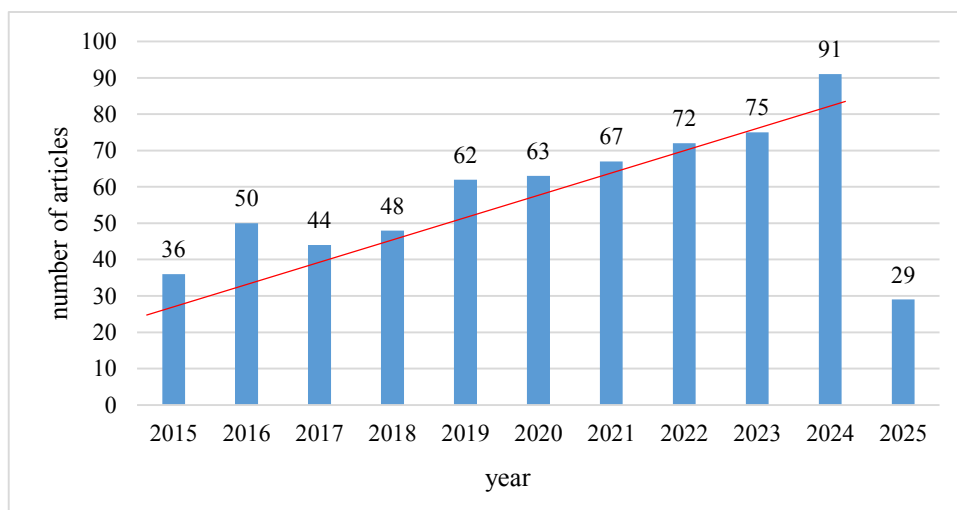


Figure 2. Number of articles published in journals and trend line.

Next, the search was limited to quality journals within the business and managerial literature fields by use the Chartered Association of Business Schools Academic Journal Guide (ABS 2020) (Akter et al., 2021; Leonidou et al., 2020; Mitrega et al., 2022; Pereira et al., 2021). In order to find scientific paper related to posed research questions, the author include to the further analysis only papers that contained key words: “antecedents”, “motive” or “motivation”. It allows to receive 40 papers. After that, the author analyzed abstracts of gathered articles. Papers that were not based on empirical research were also removed. The screening of all articles allows to receive 10 papers (appendix 1).

4. Results of the systematic literature review

In the context of innovation, consumers take on different roles in the value co-creation process and are involved to varying degrees. They can be divided into three types: informed, involved, and innovative. Informed consumers actively seek information and use it to meet their needs. Involved users participate in creation of innovation process. Innovative individuals provide innovation according to their own ideas (Huang, Iakovleva, Bessant, 2024). Similarly Nyström, Leminen, Westerlund and Kortelainen (2014) proposed four types of innovative consumers: the informant, the tester, the contributor, and the co-creator. They considered the levels of collaboration from passive to proactive participants, analyzing co-creation at different levels of consumer engagement.

Cui and Wu (2016) distinguished three forms of customer involvement in innovation: customer involvement as an information source, customer involvement as co-developers, customer involvement as innovators. They assumed that different customer involvement are driven by different factors. The results show that three types of customer involvement on new product performance are influenced differently by the nature of customer knowledge, the firm’s knowledge management strategy, and organizational support for knowledge management implementation (Cui, Wu, 2016).

The results of conducted research by Huang, Iakovleva and Bessant (2024) allows to developed a framework and identified four interdependent phases of consumer involvement in innovation: recruitment, motivation, co-creation, and relations. Not every consumer is involved in all four stages equally and different phases can consist of different participants. Because the company goal is to enhance consumer involvement in long term, the vital phase is motivation stage.

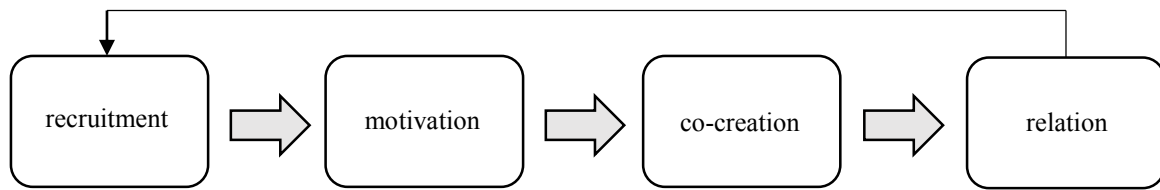


Figure 1. Framework for user involvement in innovation.

Source: Huang, Iakovleva, Bessant (2024).

According to authors, consumers are motivated to participate in co-creation activities because they want to meet following needs: social interactions, learning and contributing, empowerment, and compensation. The possibility of social interactions encourage consumers to contribute because of possibility to meet new people, exchange experiences with them, and engage in collaborative work. It increase a sense of belonging. Co-creation of innovation also allow to develop new skills and gain new knowledge. Consumers feel fulfilled when their contributions influence societal or technological progress. They are motivated by intrinsic factors like altruism. They create solutions that adapt to the broader needs of the community. Empowerment is related to consumer need of seeing their own ideas integrated into company's project and being proud of their contribution to innovation. Compensation include extrinsic factors such as monetary and alternative means. An example can be free meals, coupons, goodie bags, and gift cards. Sometimes, compensation can takes direct form of reimbursement for consumer's expenses (Huang, Iakovleva, Bessant, 2024).

Taking into consideration an important role of consumers in co-creation of innovation, it is worth to answer a questions, why people engage in this process. Research regarding customer co-creation in web-based multisided platforms suggest the following antecedents: culture, technology, intellectual property rights, and diverging interests.

Culture refers to the organizational culture and co-creation mechanism provided by company. Culture should also be considered as the cultural background of the society in general and participants of co-creation process. Technology can be indicated as an important driver as well as barrier of co-creation. If consumers are able to used technology, it can facilitate an interaction. But if the technology is difficult or complicated to use or has not been widely diffused, it can be a real barrier. Company's approach to intellectual property play an important role for co-creation activities. Participants involved in co-creation should be convinced about a fair and transparent rules related to benefits, economic or not economic (e.g., share of the profits, royalties, peer recognition). They should feel safe when they share their resources and experiences and get appropriate remuneration (de Oliveira, Cortimiglia, 2017).

Rubio, Villaseñor and Yagüe (2021) investigated co-creation behavior in the retail context. They distinguish two levels of involvement: a basic level related to feedback or communication of service errors and a higher level related to the consumer's participation in service innovation. More engage consumers share their own ideas and suggestions for preparing new company's offer, describe current trends in the services, suggest new modes of service, etc. The authors

indicated trust and perceived support as antecedents of co-creation of innovation. Trust can be defined as “the belief that the intentional action of one party is appropriate for the other party”. It is based on belief about the someone’s good intentions, competence, capability and reliability. Perceived support is the extent to which the communicator and the audience (company and consumer) are willing to improve communication between themselves. The company must supports consumers to encourage them to participate in co-creatin. According to results, trust and perceived support are equally important for encouraging the basic level of engagement, communication of service errors. In terms of more advanced level of co-creation perceived support is the most important driver to co-create. Trust also influence consumer engagement but significantly less than perceived support (Rubio, Villaseñor, Yagüe, 2021).

Engström and Elg (2015) investigated what drives patients to take part in service development. They indicated a number of motives: non-interest in participating, restitution after poor treatment, desire for contact with others, volunteerism, desire to make a contribution and the enjoyment of having a task to complete. The non-participatory approach is related to people who refused to participate in service co-creation. Some patients engage in service co-creation to find restitution from a service failure. Other consumers are drive by desire for contact with community. Participation in service co-creation is an opportunity to gather information’s and gain social support of care providers and others. The volunteerism is based on consumers’ sense of citizenship. Vast par of consumers are focused on being productive and feel a need to make a contribution to service. These patients have a strong sense of competency and self-assurance. Sometimes patients engage in service development because the need of enjoyment from completing the tasks. They are not guided by a need to accomplish an external goal (Engström, Elg, 2015).

Fernandes and Remelhe (2016) carried out a research aimed identifying customers’ motivations to engage in co-creation of innovation in virtual environment. The authors distinguished intrinsic and extrinsic motivations. Intrinsic motivations include a sense of self-expression and the pure enjoyment of contributing in terms of creativity. According to authors extrinsic benefits consist of social aspects, enhanced knowledge and economic benefits.

Conducted study gave prove that the greatest influence on customer engagement is exerted by the group of intrinsic motivations and knowledge acquisition. Significant role can be also assigned to socialization with others with similar interests. The prospect of remuneration for engagement in co-creation was not among the most important drivers in this case. The possibilities of receiving financial benefits do not has an influence on participation in collaborative innovation practices (Fernandes, Remelhe, 2016).

Lee, Lee and Tussyadiah (2017) applied Theory of planned behavior. The authors investigated factors that can motivate tourists to participate in co-creation of innovative tourism products. They proposed following antecedents: perceived benefits, perceived costs, subjective norms, and ability to co-create tourism innovations. Conducted research indicated that perceived benefits, subjective norms, and ability to co-create increase intention to co-create.

Perceived costs were found not to have a significant impact on intention to co-create. Tourists engage in innovation co-creation activities because they consider new product development to be beneficial for them (e.g. opportunity for social interactions, new knowledge acquisition). Moreover, consumers are more willing to contribute when they feel that their work is appreciated and supported by close friends or family. The key drivers is also possessing the necessary abilities and skills to co-create the innovation (e.g. rich experience in new product and service development, rich knowledge, creativity). The research confirmed that tourists participated in co-creation of innovation are not afraid of internal costs (e.g. the possible conflict with other people, the sacrifice of their own free time, disappointment from failure) and external costs (financial expenses). Consumers perceive their work as voluntary and do not expect any external benefits (e.g. financial bonuses) (Lee, Lee, Tussyadiah, 2017).

The issue of social support also appears in the case of other research on brand engagement in co-creation of innovation in social commerce. Social commerce is referred to a variety of commercial activities in social media platform. In social media consumers offer product assessment, exchange product's recommendation, and share their own experience. In this context, customers co-create value of particular brands. Bazi, Hajli, Hajli, Shanmugam and Lin (2020) established following antecedents of customer participation: social support, social commerce value and social commerce information. Social support is defined as perceived social resources that are actually provided to social media users by non-professionals from formal and informal support groups. In social media, customers can received two main forms of support, informational and emotional. Informational support refers to providing commercial information about the brand or product, such as product reviews, product recommendation and sharing shopping experience. Emotional support refers to offering other consumers mutual psychosocial support based on exchanging care, comforting each other in supporting purchase decision making process (Bazi, Hajli, Hajli, Shanmugam, Lin, 2020).

In 2015, Zhang, Kandampully and Bilgihan proposed a research model that show consumers' motivation to participate in co-creation of innovation in the hospitality industry. They include in the model three motivations: brand equity, sense of community and monetary incentive. A sense of community is a feeling of belonging to specific group of customers and can be explained by the theory of subjective norms. Subjective norms are personal feelings about other people's expectations towards us and the extent to which these feelings influence our behavior. In this case our actions depends mostly on a need for approval. Consumers voluntarily engage with the community because they are interested in helping others and participating in various activities. Belonging to community endorses consumer's value for themselves and for others people. A sense of community enhance consumer's involvement in the community.

Monetary incentive include direct benefits such as profit sharing to various form of indirect incentives like samples, beta products or receiving intellectual property rights. It was suggested that monetary incentives enhance consumers' positive attitude toward engagement

in co-innovation. The authors also imply that customers' prior experience with cooperation with innovation projects can moderate the effects of the abovementioned motivations on consumers' attitude towards engagement in co-creation of innovations (Zhang, Kandampully, Bilgihan, 2015).

Research in the context of a shared healthcare platform allowed to infer that consumers need to gather more information about the risk of consuming, delivering, and producing particular services or products. Because it is companies' responsibility to take care of customer safety, it can be inferred that a firm is obligated to inform customer about potential risk of involving a particular service or product. Managers should be aware that risk perceived by customer plays a crucial role in the value co-creation process (Akter, Babu, Hossain, Hani, 2022).

More recent study investigated the motivation of consumers to engage in new product co-creation according to different stages of participation, namely recruitment before, retention during and finalizing of a co-creation project. The authors considered following motivation factors: intrinsic, knowledge, empowerment, altruistic, social and reward-oriented motives. The results showed that consumers make a decision about joining the project because of curiosity and desire to meet new people. They continue the creative tasks after positive anticipation and enjoyment of new tasks and positive feedback received. When the project is in the final stage, the motives such as the usefulness of outcomes, the received recognition and perceived creative self-efficacy of consumers gain importance (Klincewicz, Jacobsen, Dębska, Gazdecki, Goryńska-Goldmann, Król, ... Zatorska, 2024).

5. Conclusions

The spread of new technologies in consumer and company interactions has changed the roles of customers in innovation and value creation (Nambisan, Baron, 2009). The benefits of consumer participation are undeniable thus present paper aims to answer the question what drives a consumer value co-creation of innovation in the context of virtual environment. Previous research allow to draw some conclusions. In general, antecedents of co-creation of innovation can be associated with extrinsic motivations and intrinsic motivations. Extrinsic motivations are monetary oriented whereas intrinsic motivations include: enjoyment of contributing, need of social interactions (contact with people, social recognition), desire to make contribution (or empowerment), learning (acquiring knowledge), ability to co-create (customer knowledge and skills), and perceived risk of co-creation. The research predominantly encounter different online co-creation platforms (e.g. Huang, Iakovleva, Bessant, 2024; Shin, Perdue, 2022) frequently created on the purpose of the innovative project (e.g. Lee, Lee, Tussyadiah, 2017). It is worth to pay attention that part of studies consider co-creation behavior while meaningful number of articles focus only on intention to co-create value.

Presented literature research have also a few limitations. The publication search procedure presented in this paper uses only the Scopus database. The Scopus database allows for reliable identification of publications that meet the established requirements. In the future, the literature review could be expanded on additional databases. Second, the use of ABS list as criterion could cause that some publication in journals were omitted. Future research can be expanded with other journals.

Taking into account growing body of content created by consumers in virtual environment (e.g. Hutzinger, Weitzl, 2021; Pentina, Guilloux, Micu, 2018) and digitalization of companies' activities (e.g. Ribeiro-Navarrete, Botella-Carrubi, Palacios-Marqués, Orero-Blat, 2021; Zeng, Ran, Zhou, Jin, Cheng, 2022) there is relatively low progress in research made. In the analyzed publications, the authors indicate numerous opportunities for future research. Future research should explore how user involvement evolves over time and how particular co-creation stages impact innovation outcomes and long-term cooperation (Huang, Iakovleva, Bessant, 2024; Klincewicz et al., 2024; Shin, Perdue, 2022). Some researcher encourage to investigate whether customer motivations and participation in collaborative innovation vary depending on type of industry (Lee, Lee, Tussyadiah, 2017; Rubio, Villaseñor, Yagüe, 2021). Gathered knowledge is limited to industries such as health care and hospitality services. It is also recommended to analyze different cultural and geographic contexts (Fernandes, Remelhe, 2016; Rubio, Villaseñor, Yagüe, 2021). Future research should also focus on different types of co-creation platforms, e.g., sharing economy platforms, marketplaces, innovation platforms to better understand how value co-creation process differ across them (Lee, Lee, Tussyadiah, 2017; de Oliveira, Cortimiglia, 2017). Future research should consider other media for example social networking sites and computer games.

Some authors indicated an importance of development and testing of digital tools supporting co-creation (Huang, Iakovleva, Bessant, 2024), thus future research should examine how emerging digital technologies such as artificial intelligence, Internet of Things, and advanced data analytics can support and transform co-creation processes in innovation ecosystems.

According to several authors, in the future scholars should conduct longitudinal studies on user involvement in innovation processes (e.g. Engström, Elg, 2015; Fernandes, Remelhe, 2016; Huang, Iakovleva, Bessant, 2024; Klincewicz 2024; Lee, Lee, Tussyadiah, 2017). The authors suggest using different methodologies such as case studies, experimental research (Cui, Wu, 2016; Fernandes, Remelhe, 2016) and mixed-method research designs combining qualitative and quantitative methods to better understand the dynamics of customer participation over time (Engström, Elg, 2015) and explain how value co-creation processes influence service innovation, perceived value, and patient welfare over time (Rubio, Villaseñor, Yagüe, 2021).

According to the authors' knowledge, the aspect of co-creation of brand innovation is essentially omitted. Widespread new media allow consumer to participate in creating brand communication and brand image. Fernandes and Remelhe (2016) also suggest to examine

co-creation activities across community types, e.g., online communities, brand communities, to understand how participation dynamics vary. It is worth to investigate how people engage in branded innovations, what are their motivations and how companies can manage this phenomenon.

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Appendix

Research paper related to antecedents of co-creation of innovations

Authors, Year	Journal	Motives / Antecedents	Media type	Method
Huang J.H.; Iakovleva T.A.; Bessant J. (2024)	International Journal of Innovation Management	social interactions, learning and contributing, empowerment, compensation	living labs (collaborative innovation spaces)	Interviews <i>behavioral results</i>
Klincewicz K.; Jacobsen L.F.; Dębska K.; Gazdecki M.; Goryńska- Goldmann E.; Król K.; Lähteenmäki L.; Wielicka-Regulska A.; Zatorska M. (2024)	Creativity and Innovation Management	intrinsic, knowledge, empowerment, altruistic, social, reward-oriented motives	offline co- creation project	Interviews <i>behavioral results</i>
Shin H.; Perdue R.R. (2022)	International Journal of Hospitality Management	customer empowerment, social recognition rewards	online hospitality platforms	experimental studies, survey <i>intentions</i>
Akter S.; Babu M.M.; Hossain M.A.; Hani U. (2022)	Journal of Business Research	dialogue (continuous interactions between the consumer and service providers), access to the customers' preferences, risk (of consuming, delivering, and producing particular services or products), transparency (equity while discussing value co-creation) <i>sharing economy approach</i>	a shared healthcare platform	survey <i>behavioral results</i>
Rubio N.; Villaseñor N.; Yagüe M.J. (2021)	International Journal of Retail and Distribution Management	trust, perceived support <i>service-dominant logic</i>	offline co- creation project	survey <i>behavioral results</i>
Lee G.; Lee J.; Tussyadiah I.P. (2017)	Asia Pacific Journal of Tourism Research	perceived benefits, perceived costs, subjective norms, ability to co-create <i>theory of planned behavior, self- determination theory</i>	innovation co- creation platforms, co- creation of tourist destinations	survey <i>intentions</i>
de Oliveira D.T.; Cortimiglia M.N. (2017)	Business Horizons	culture, technology, intellectual property rights, diverging interests <i>service-dominant logic</i>	web-based multisided platforms	systematic literature review, interviews, an analysis of secondary data on representative cases <i>behavioral results</i>

Cont. table

Cui A.S.; Wu F. (2016)	Journal of the Academy of Marketing Science	the nature of customer knowledge, the firm's knowledge management strategy, organizational support for knowledge management implementation	offline co-creation project	survey <i>behavioral results</i>
Fernandes T.; Remelhe P. (2016)	Journal of Strategic Marketing	intrinsic motivation (a sense of self-expression, enjoyment of contributing), extrinsic benefits (social benefits, enhanced knowledge, economic benefits)	FS (Android) collaborative platforms	survey <i>behavioral results / intentions</i>
Engström J.; Elg M. (2015)	Journal of Services Marketing	restitution after poor treatment, desire for contact with others, volunteerism, desire to make a contribution, the enjoyment of having a task to complete <i>self-determination theory</i>	health-care service development, offline	solicited diaries, in-depth interviews <i>behavioral results</i>

Source: own elaboration.