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# Exploring the multidimensional nature of value co-creation in different theoretical frameworks.

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Abstract: This paper investigates the concept of value and value co-creation across various disciplines, particularly goods-dominant logic, service-dominant logic, public service logic, and service design. Through data collection and analysis involving academic articles and case studies, this research contrasts the perspectives and underscores the significance of value co-creation in the service economy. The comparative analysis reveals two key findings: value co-creation, taking place between actors at any level of the ecosystem, influences resource availability and demand throughout all other levels. Therefore, comprehending the interconnectedness of value creation in a multidisciplinary context becomes imperative. Additionally, the study reveals that value and value co-creation in service design are primarily descriptive, lacking empirical research as well as specific design tools and processes to support them.

Keywords: Value, Value co-creation, Service design, Service-dominant logic

## 1. Introduction

Value, an intricate, multifaceted construct, has substantially transformed over recent decades. Traditional marketing and Goods-Dominant Logic (GDL) posited value as company-delivered through products or services, a perspective upended by Service-Dominant Logic's (SDL) concept of co-created value involving customers and companies. Subsequent paradigms, including Public Service Logic (PSL) and Service Design (SD), introduced distinct viewpoints on value.

A primary research deficit in this field is the absence of a uniform interpretation of value creation across disciplines. Despite the acknowledged significance of value creation in marketing, management, and design, divergent definitions persist. This semantic ambiguity associated with many terms, as Ballantyne et al. (2011) noted, leads to potential misuse. Furthermore, the progress and degree of application of value co-creation is inconsistent across disciplines, for example the field of social care has only in recent years recognised and embraced the more active role of the customer in co-creating the healthcare service experience (Gill et al., 2011; McColl-Kennedy et al., 2012). This study aims to reconcile these viewpoints, formulating a comprehensive framework applicable across

disciplines. Another important research gap in this area is the lack of understanding of value co-creation in service design. While there has been a growing interest in co-design (Trischler et al., 2019) and the provision of value propositions in service design, there is little discussion of what value means in the context of design. Thus, this study will propose a future agenda by examining the role of value in service design and developing a process or tool for explicit value co-creation in service design.

# 2. Methodology

This paper is a comparative analysis of the concept of value, value creation, and value co-creation in four theoretical frameworks: goods-dominant logic (GDL), service-dominant logic (SDL), public service logic (PSL), and service design (SD). The data collection process for this study involved a comprehensive review of existing literature on the four theoretical frameworks. Papers come from various search channels, including several important design publications: CoDesign; Design Issues; Archives of Design Research; International Journal of Design; Journal of Business Research; Journal of Service Management; Journal of Service Research; Journal of Service Theory and Practice; Springer International Publishing; The Design Journal. Datas also include some cases from the service design community and service design conferences, these cases are used as data rather than for case interpretation. The following search terms were used: "goods-dominant logic", "service-dominant logic", "service ecosystems", "public service logic", "service design", "value", "value creation", and "value co-creation". A total of 54 articles were identified and reviewed for this study.

The analysis of the literature involved a thorough reading and synthesis of the articles. The articles were analyzed based on their relevance to the research questions and the theoretical frameworks being examined. The analysis focused on identifying similarities, differences, and implications for future research and practice. The comparative analysis was conducted by identifying the key themes and concepts in each theoretical framework related to the concept of value, value creation, and value co-creation. The themes were then compared across the four theoretical frameworks to identify similarities and differences. The analysis was conducted using a thematic analysis approach, which involved coding the data based on the themes and categorizing them into different groups.

The analysis of the data was conducted using Microsoft Excel, which was used to organize and categorize the data. The findings of the analysis were presented in tables and graphs to facilitate a clear and concise presentation of the results.

# 3. Analysis

## 3.1 Value in multiple perspectives

The concept of value has been discussed in various ways in literature, especially in the field of marketing, service, management, and other domains, which has received great attention. Despite the debate on value tracing back to the philosophical domain of Aristotle, in fact, the formal discussion of value originates from the realm of economics, where Adam Smith, for example, was concerned with those things that contribute exchange value through the manufacture and distribution of tangible goods (Vargo et al., 2008). In the modern business world, firms began to focus on the calculation of costs and acquisitions in order to increase the value of goods exchanged for more profits. In 1985, Porter proposed the concept of the value chain, which refers to how a specific company operates through primary (value-added) activities and supporting activities (Porter, 1985). In this concept, value is the profit created and acquired by a company, reflecting the effort, time, and energy invested by an individual (Munn, 1992). This interpretation of value in buying and

selling can be used as a framework for performance improvement: when a company provides more value to customers, it establishes a competitive advantage. In the dyadic relationship between companies and consumers, products designed and manufactured by companies can offer purchasers five types of value: functional value, social value, emotional value, epistemic value, and conditional value (Sheth et al., 1991). Customers evaluate whether a product contributes to (or hinders) the achievement of goals in usage scenarios by assessing product attributes, attribute performance, and usage consequences (Woodruff, 1997). Therefore, value can make actors better (Grönroos, 2011) while also causing customers to perceive sacrifices (Sánchez-Fernández & Iniesta-Bonillo, 2007). In addition, M. B. Holbrook (1996) and M. Holbrook (1998) emphasise defining value as an "interactive relativistic preference experience", with value being an overall assessment of a product based on the perception of the costs paid and the returns obtained (Zeithaml, 1988), rather than supply and purchase. This viewpoint emphasising value in use and experience stems from Aristotle's value theory, in which value is seen as the "benefit of subjective experience," meaning that value comes from the outcomes of using a product, rather than the inherent attributes of the product (or service) itself (Woodall, 2003). In summary, although interpretations of value have shifted from exchange value to value in use and experience, all perspectives emphasise the dichotomy between customers and businesses while neglecting the role of customers in value creation (Prahalad & Ramaswamy, 2004b). Consequently, the author contends that these interpretations of value are consistent with a goods-dominant logic based on economic science.

In the fields of service, marketing, and design research, an increasing number of scholars assert that value arises from a multi-to-multi interactive configuration process. In a multidimensional relational network, all actors (companies, employees, customers, shareholders, government agencies, and other entities related to any specific exchange) collaborate by integrating resources to create benefits for themselves and others (Vargo & Lusch, 2008). From this perspective, value is co-created by all actors when resources, which have no inherent value, are used, and configured in various ways (Beirão et al., 2017). This interpretation of value can be traced back to Normann & Ramírez (1993) 's theory. They proposed the concept of value constellations, where value is jointly produced by interconnected actors, and where tasks are explicitly or implicitly distributed among actors in time and space to achieve value creation (Normann & Ramirez, 1998). Value constellation theory, even without mentioning the concept of value co-creation, has had a significant impact on the transition from product-centric to consumer-centric businesses and the formation of service-dominant logic. The concept of service-dominant logic suggests that value is co-created within mutually interacting configurations (referred to as service systems) (Pinho et al., 2014; Vargo & Lusch, 2008). To elaborate, service-dominant logic posits that products have no value before being used (Grönroos, 2011; Vargo & Lusch, 2004), such as a manufactured car only having value when used on the road (a public resource) by a person with driving capabilities. In this process, the experiences and perceptions of various individuals are crucial in determining value (Lusch & Vargo, 2006). Therefore, "Value is always uniquely and phenomenologically determined by the beneficiary" (Vargo & Lusch, 2008) and all actors can potentially become beneficiaries. Product (service) providers and users are no longer in an adversarial and buyer-seller relationship, they are integrated in a unified network, regulated by a universal institution and culture, and it is only the collective of consumers that is the place where much value is created (Schau et al., 2009). A comprehensive approach to discerning customer values, originally posited by Almquist et al. (2016), suggests four principal types of customer values: functional, emotional, life changing, and social impact. Practical value relates to the tangible advantages a product or service offers, like cost-effectiveness, quality, or time-saving features. Affective value, on the other hand, refers to the emotional response elicited in consumers by a product or service, a factor that often cultivates brand loyalty. Transformational value represents the significant, life-altering influences a product or service can provide for a customer,

offering elements of inspiration, motivation, or self-improvement. Lastly, societal benefits encapsulate the broader, community-focused impacts a company or its offerings can have. Furthermore, to form an understanding of the origins of value and address the question of how to create value, McColl-Kennedy & Cheung (2018) differentiated value into value-in-use, value-in-social context, value-in-context and value as experience. These interpretations include both the traditional economics of value in use and value in experience, as well as the expansion of value to the context of networks and service ecosystems. Value occurs at the micro, meso, and macro levels of the ecosystem and emphasizes system welfare improvement (Beirão et al., 2017). In conclusion, the evolution from viewing value as the inherent value of products or services traded and utilized during service provision to viewing value as co-created by users in their specific usage environments, through exposure to broader resources and services (Sangiorgi & Prendiville, 2017), indicates that organisations' business logic has developed from goods-dominant logic to service-dominant logic.

Simultaneously, the focus of designers serving organisational businesses has shifted from enterprise-centered to user-centered, from the design of services to design for service (Strokosch & Osborne, 2023). Service design, as a multidisciplinary development of design thinking, aims to co-create value by understanding and designing the needs, preferences, and experiences of actors in various service contexts. Mills (2013) offers an insightful definition of 'value' that can be understood by service designers, expressing it as an appraisal, a balancing act between alternate choices over time and considering the resources they expend. It's essentially a stakeholder's comparative judgement of benefits, sacrifices, and resources against a diverse range of standards that emerge from a network of people, processes, and products or services. The prism of such judgement is shaped by inherent values and substantiated by empirical evidence. The integration of these stakeholder judgements within the design process, and aligning projects with the core values and objectives of organisations and broader societies, will invariably lead to a more successful outcome across the entire system. Other scholars, such as Yu (2018), grounded in service-dominant logic, acknowledge that value is co-created by users and service providers and clarifies that user value derives from the overall service experience. This holistic approach emphasises the importance of service design tools, such as customer journey maps, personas, and service blueprints, to obtain user experience value. These tools can help service designers uncover user needs, expectations, and pain points, enabling them to create more seamless, enjoyable, and valuable service experiences. Boztepe (2007) extends the concept of value beyond exchange, use, sign, and experience, encompassing utility value, socially significant value, emotional value, and spiritual value. These dimensions of value reflect the different ways in which a service can contribute to the well-being and satisfaction of its users. Utility value pertains to the practical benefits and usefulness of a service, while socially significant value highlights the role of a service in building social connections and fostering a sense of belonging. Emotional value captures the affective experiences and feelings associated with using a service, and spiritual value refers to the deeper, more transcendent aspects of a service that may contribute to personal growth or self-actualisation. However, while service design is increasingly focused on designing at the ecosystem level, the design field's understanding of value is still primarily focused on user and individual values. In a multidisciplinary perspective, user values in design research should be aligned with design attitudes in public service logic, where service design is not only a precondition to create future value for citizens and society through well-designed artefacts and public services (Osborne, 2020). Hence, service design ought not to solely address user demands; instead, it should encapsulate user requirements, experiences, sentiments, benefits, connections, and organizational advantages as values. Moreover, it should establish the circumstances (assertions) for the amelioration, provision, and consolidation of these values. To summarise, even though interpretations of 'value' can vary, four key themes emerge from the current body of literature exploring 'value' in design. These themes encompass: (1) the management of value in products and

(2) processes; (3) the economic impact of design; and (4) the integration of human values in design (Reber, 2011).

The public service logic focuses on the value created by public service and emphasises the role of the public sector in creating value for both society as a whole (public value) and individuals (private value). Although the idea of public value management has provided a framework for the development of government functions and public institution research since Moore (1995) created the theory of public value, it has been controversial. As O'Flynn (2007) highlights, a clear definition of public values remains elusive and difficult to define. This article draws on Cui (2021) 's classification of public value in his doctoral thesis: Supply-driven logic and Demand-driven logic. The supply-driven logic emphasises that public value is created and increased by public management agencies and is a production process. Firstly, government agencies can provide and create public services for the improvement of citizens' well-being to enhance confidence in the public sector (Kelly et al., 2002). In addition, the value provided by public services can be measured and continuously increased (Cole & Parston, 2006). On the other hand, the demand-driven logic does not focus on who creates value, but rather sees public value as the result of subjective evaluation or the positive impact of public services on public welfare (Alford & O'Flynn, 2009), which is a perceptual process. Firstly, the demand-driven logic determines the arbitrators and beneficiaries of public value (Alford, 2002). Moreover, public value is not simply a collection of private interests, but refers to long-term, broader social interests (Benington, 2011). Private value, together with public value, constitutes the logic of public service, which stresses the creation of individual-level value, while also acknowledging the potential for creating social value. Drawing on service marketing management (SMM) and service-dominant logic, private value is created by customers and service companies together. Osborne (2020) clarified three dimensions of private value: production value (the influence of participating in the design and management/provision of public services), use value (the experience of using public services), and background value (the relationship between public services and the personal life experience, needs, and expectations of users). More importantly, with the development of service-dominant logic and the deepening of systems theory, the value in the field of public service management has also penetrated into the field of service ecosystem: the value is reflected in multiple levels such as institutions, services, individuals, and beliefs (Osborne et al., 2022).

| Perspectives | | Author(s) | Definition | Actor value network | Discipline |
|---|---|---|---|---|---|
| GDL | | Gordon (1964) | In aristotle's value theory, value is viewed as 'subjectively experienced benefit'. | User | Economics |
| | | Porter (1985) | Value is defined as outcomes achieved per dollars spent and this value should define the framework for performance improvement. | Company | Economics |
| | | Munn (1992) | Value is the importance of one's actions (effort, time, and energy investments as well as sacrifice). Value could not happen in isolation...it can only happen through the importance of one's actions being recognized by someone else. | Company-User | Anthropology |
| | | Zeithaml (1988) | Value is defined as a consumer's overall assessment of the utility of a product based on perceptions of what is received for what is given. | Company-User | Marketing |
| | | Sheth et al. (1991) | Five categories of value that might be provided by a product: functional, social, emotional, epistemic, and conditional value. | Company | Marketing |
| | | Holbrook (1996,1999) | Customer Value as an interactive relativistic preference experience including iInteractive, relativistic, preference and experience; Three key dimensions of value: Extrinsic versus Intrinsic, Self- versus Other-Oriented, and Active versus Reactive. | Company-User | Marketing |
| | | Woodruff (1997) | Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations. | User | Marketing |
| | | Sánchez-Fernández and Iniesta-Bonillo, (2007) | Customers' perceived value reflects "a variety of notions (such as perceived price, quality, benefits, and sacrifice). | User | Marketing |
| | | Grönroos and Ravald (2011) | Value is defined as making an actor, such as a customer, better off | User | Services research and management |
| | | Boksberger & Melsen (2011) | The complex and multidimensional nature of value includes dimensions of utility, function, emotional appeal, perceived benefits and costs, and acquisition. | Company-User | Marketing |
| | | Figueiredo & Scaraboto (2016) | Value is the perceived benefit of something (e.g. object, person, or activity) to an individual or group created through the circulation of objects in collective consumer networks. | Company-User | Marketing |
| SDL | | Normann and Ramirez (1993) | Companies create value when they make not only their offerings more intelligent but their customers (and suppliers) more intelligent as well. | Company and User (many to many) | Services research and management |
| | | Normann and Ramirez (1994,1998) | value is co-produced by actors who interface with each other. They allocate the tasks involved in value creation among themselves and to others, in time and space, explicitly or implictly. | Company and User (many to many) | Services research and management |
| | | Arnould et al. (2006) | Customers and firms come together to cocreate value through patterns of experience and meaning embedded in cultural lifeworlds of consumers, which are rich in operand and operant consumer resources. | Company and User (many to many) | Marketing |
| | | Vargo et al. (2008) | value is created collaboratively in interactive configurations of mutual exchange. We call these value-creation configurations service systems.Value is always uniquely and phenomenologically determined by the beneficiary. | All actor | Services research and management |
| | | Vargo et al. (2008) | Define value as "an improvement in system well-being", which is measured in terms of "a system's adaptiveness or ability to fit in its environment". | All actor | Services research and management |
| | | Schau et al. (2009) | Collectives provide value to their members through emergent participatory actions of multiple kinds and consumer collectives and the site of much value creation. | All consumer | Consumer Culture theory |
| | | Helkkua et al. (2012) | Value is socially constructed,perceived subjectively by each actor within their own social circumstances | All actor | Services research and management |
| | | Almquist et al. (2016) | We have identified 30 "elements of value"—fundamental attributes in their most essential and discrete forms. These elements fall into four categories: functional, emotional, life changing, and social impact. Some elements are more inwardly focused, primarily addressing consumers' personal needs. For example, the life-changing element motivation is at the core of Fitbit's exercise-tracking products. Others are outwardly focused, helping customers interact in or navigate the external world. The functional element organizes is central to The Container Store and Intuit's TurboTax, because both help consumers deal with complexities in their world. | All consumer | Marketing |
| | | Beirão et al. (2017) | In ecosystems, value can be defined as an improvement in system well-being and can be measured in terms of system adaptability | All actor | Services research and management |
| | | McColl-Kennedy & Cheung (2018) | How value is obtained, that is, through 'value in use', 'value in social context', 'value in context', and 'value as experience'. | All actor | Services research |
| SDL | PSL | Kelly et al. (2002) | Public value refers to the value created by government through services, laws regulation and other actions. | Public-personal | Services research and management |
| | | Moore, Kelly et al. (2002) | (1) the service, as the vehicle for delivering public value; (2) the outcome, as the improved well-being of citizens; and (3) the enhanced trust, legitimacy and confidence in government. | Public-personal | Services research and management |
| | | Cole and Parston (2006) | Attempt to convert public value into the measurement 'indicator', which offers a 'meaningful, relatively easy-to-use way of defining, measuring and increasing the value delivered by public services (p.xiv)' | Public-personal | Services research and management |
| | | Alford and O'Flynn (2009) | Public value focuses on: 1. a wider range of value than public goods; 2. more than outputs; and; 3. what has meaning for people, rather than what a public-sector decision-maker might presume is best for them. More significantly, it connotes an active sense of adding value, rather than a passive sense of safeguarding interests. | All actor | Services research and management |
| | | Benington, (2011) | Public value highlights the processes of value creation, and the longer-term outcomes for the public sphere, not just short-term activities and outputs. | Public-personal | Services research and management |
| | | Osborne (2020) | These axes create the public service ecosystem and locate the three dimensions of value within it. Within it, the three dimensions of value are identified – value-in-production, value-in-use, and value-in context. | All actor | Services research and management |
| | SD | Boztepe (2007) | The definition of value extends beyond exchange, use, sign, and experience, as the types and attributes of user value also encompass utility value, socially significant value, emotional value, and spiritual value. | All actor | Design research |
| | | Mills (2013) | An attitude or judgement of the trade-off between alternatives overtime and according to the resources they consume. More specifically a stakeholder judgement of benefits, sacrifices and resources against various baselines that arise through the interaction of a system of people, process and product/service entities. A judgment of value is framed by values and supported by evidence. Integrating stakeholder judgements into the design process and nesting projects within organisations and broader societies (against values and value) will deliver greater whole system success. | All actor | Design research |
| | | Yu (2018) | Built on the S-D logic, this study considered user value as emerging from the holistic service experience, service design tools are beneficial for obtaining user experience value. | All actor | Design research |

*Figure 1. Value in multiple perspectives.*

## 3.2 Value creation (co-creation) in multiple perspectives

The concepts of value creation and co-creation have received significant attention in the fields of service, management, and marketing, with extensive research exploring their impact on marketing strategies and service practices. While there is still debate over the definition of value creation and co-creation (Grönroos, 2008), this article aims to place the concept of value creation within two widely accepted frameworks: the goods-dominant logic of value in exchange and the service-dominant logic of value in use (Pinho et al., 2014).

The reasoning behind the GDL is based on the concept of exchange value, which considers the provider (organization or enterprise) as the creator or "manufacturer" of value and measures it through economic compensation received through exchange (Vargo & Lusch, 2018). The view that companies create value is influenced by Adam Smith's economic concepts, and more and more businesses are using strategic thinking to enhance short-term exchange value of their products to gain competitive advantage. The GDL is related to the idea that value is created by suppliers and embedded into products, which are then delivered to customers (Vargo & Lusch, 2016). More specifically, companies create different kinds of value by producing and manufacturing different products (as mentioned earlier), and they gain more profits by improving product attributes to increase sales. Users, on the other hand, achieve certain goals through the product attributes. However, when a product with exchange value is purchased by a consumer who lacks the ability to use it, such as a non-driver buying a car, value cannot be created. Therefore, many scholars emphasise that the value created when using a product is more important for both customers and companies than the value created during the exchange of products (Alderson, 1957; Grönroos, 2008), and exchange value is considered as a function of use value (Grönroos & Ravald, 2011). The emphasis on use value in different fields mainly comes from its ability not only to meet the needs of users but also to bring economic and experiential value to users, while an increase in product purchases also brings value to suppliers. Under the framework of use value, customers are increasingly able to participate as co-creators in the business activities of enterprises, where customer identity evolves from self-service to customer experience orchestrated by the company, to co-design, and ultimately to co-production of services (Prahalad & Ramaswamy, 2004a; Vargo & Lusch, 2004). Normann & Ramírez (1993) first proposed the concept of co-production, stating that "participants are not at the end of the value chain, but in a value constellation where value is co-produced." In the original SDL, Vargo & Lusch (2004) adopted the term co-production and emphasised that "the customer is always the co-producer." However, Vargo & Lusch (2006) believed that the term "co-producer" was somewhat contaminated with the GDL and that the concept of value co-creation became widely accepted in later service research and the service-dominant logic. Therefore, in 2008, the definition of value co-creation was adjusted to "the customer is always a co-creator of value" (Vargo & Lusch, 2008). However, there is another interpretation of this sentence: both customers and companies participate in the process of value creation, and their roles in this process are still unclear (Grönroos, 2011). Grönroos & Voima (2013) believed that the reason why customers are value creators rather than co-creators is based on the concept of use value (Ng et al., 2010), that is, value can only be created when products are used by users. The idea that value is co-created by customers and suppliers would lead to another interpretation, where suppliers are responsible for the value creation process and customers join as co-creators. This understanding that denies the importance of value in use is consistent with the GDL and should not be a sixth axiom of the SDL: The Customer Is Always a Coproducer (Vargo & Lusch, 2004). Therefore, Grönroos (2017) provides two aspects of the definition of value creation and co-creation: 1. Customers not only determine value, but also create value. The company provides potential value, which only evolves into value in use after the customer has consumed it, resulting in value creation. 2. If actors can establish a co-creative relationship in interaction, service providers can co-create value with

customers. In contrast, (Vargo & Lusch, 2016) responded to these misunderstandings and explained the meaning of co-production and value co-creation, which is determined as the value created by multiple participants, including beneficiaries. In the S-D logic, all social and economic actors are resource integrators and active participants in value co-creation, connected together in the embedded system of service exchange (Chandler & Vargo, 2011). Furthermore, the S-D logic emphasises the importance of experience and interaction in determining value, which is derived from M. B. Holbrook (1996)'s definition of value. First, experience determines what is valuable, and co-creation of experience (rather than the company's product) is the basis of individual unique value (Ramaswamy & Ozcan, 2018). Secondly, value, which can only be achieved through the interaction of partners in a customer service network and the integration of resources (McColl-Kennedy et al., 2012). Interaction in the service network also brings value co-creation to the system level. From the perspective of the value network (service system), value co-creation goes beyond the opposition between the enterprise and the customer and takes a broader view where all participants create value for themselves and others (Vargo & Lusch, 2018). Therefore, the creation of value is no longer confined to the boundaries of the company (Prahalad & Ramaswamy, 2003), but rather is co-created by all actors in the service ecosystem. In the service ecosystem, the formation of value co-creation is influenced by five factors: resource acquisition, resource sharing, resource recombination, resource monitoring (at the meso and macro levels), and governance/institutional generation (at the macro level) (Beirão et al., 2017). This perspective of amplifying and reducing at different levels makes the applicability of value co-creation more extensive, matching the focus of the actor network in the SDL (Jedbäck, 2022).

According to the logic of value creation in use, value is created in the customer domain and appears in their everyday practices and value generation process (Grönroos, 2000). Therefore, companies should not be distracted by their existing products or services in the market, but rather focus on understanding customer behavior and the value creation process of using their products and services. This shift in marketing also reflects a similar change in the design field, where designers are shifting their focus from product-centered to user-centered design. The first edition of Service Design Principles (Stickdorn et al., 2018) illustrates this shift well. As value co-creation emerges as a new paradigm of innovation, designers are beginning to view customers and end-users as active participants in the design and development of personalized products, services, and experiences. By involving users or customers in the design or production of products or services, the final value is enhanced for both the customer and the company, as the customer has the opportunity to make creative contributions to the design and innovation process (Tanev et al., 2015). This view in the design field is referred to as "human-centered design", which aims to make systems usable and useful by focusing on users, their needs and requirements, and applying human factors/ergonomics, usability knowledge, and technology. Additionally, service design incorporates the human-centered approach as a design thinking to achieve value co-creation (Stickdorn & Schneider, 2010). Service design can fully consider the demands of different actors at different levels by improving service management to create better experiences and contribute to value creation at all levels (Anderson et al., 2018). In this process, participatory design is considered a source of value co-creation (Wetter-Edman et al., 2014), emphasising that customers and end-users should be seen as active participants in the design and development of personalised products, services, and experiences (Tanev et al., 2015). Another design method applying the theory of value co-creation in service design is co-design, which is a complete and ongoing activity in service design (Akama & Prendiville, 2013) that promotes knowledge and resource exchange across interdisciplinary fields to achieve value co-creation (Rygh & Clatworthy, 2019). Therefore, integrating user experience, co-design tools, prototyping, system alignment, and user-centered methods can enhance organisational capabilities for value proposition,

optimize resource utilization, and promote long-term support for user value creation (Yu & Sangiorgi, 2018).

Positioning service design as the core of the value creation process also promotes the emerging focus of Public Service Logic on value co-creation (Strokosch & Osborne, 2023). The focus of PSL on value co-creation is consistent with the service research field, emphasising the value in use and interaction between multiple levels (Osborne, 2020). It highlights the three places of value creation: individuals, society, and public service systems. Value creation at the individual level is consistent with the shift towards service-dominant logic, where value creation is viewed as a dynamic process where value is created through the use of public services, and the service user is the arbitrator of value. Additionally, public services may have multiple end-users, increasing the complexity of value creation relationships. Second, the importance of society as a center of value creation is not limited to incorporating social values into public policies and implementing them through public services. It also includes recognising that public services can simultaneously meet the needs of individuals and communities, balance private and social value creation, understand the subjectivity of public service value, and acknowledge that public services reflect societal values. Third, public service delivery not only creates value for service users and society, but also creates value for other organisations and individuals in the ecosystem. Therefore, any theory of value creation in public service provision must include value creation at the service system level, as well as the societal and individual levels.

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| Perspectives | | | Author(s) | Definition | Discipline |
|---|---|---|---|---|---|
| **GDL** | | | Vargo and Lusch (2016) | One, which sees the firm as the sole creator of value, is directly linked to G-D logic and, arguably, associated with traditional, mainstream marketing management. | Marketing |
| **SDL** | **SL** | | Ramirez (1999) | Value creation is a synchronic and interactive process, not sequential or 'added' at the end of a value chain. Value is mutually 'created' and 're-created' among actors. | Marketing |
| | | | Grönroos (2008) | It is only during the consumption that value is realized and that value-in-use is created for consumers. a firm may act as a cocreator of value by facilitating valuecreating activities for consumers through the provision of resources from the firm. | Marketing |
| | | | Grönroos & Voima (2013) | Value creation is the consumer's creation of value-in-use, and interactions facilitate the cocreation of value between the firm and the customer. the consumer is the value creator and the firm facilitates value for consumers. | Marketing |
| | | | Normann & ramirez (1994) | Rather than locating consumers at the end of the value chain, actors come together to co-produce value in value constellations...actors originate from both the supply and the customer network. | Services research and management |
| | | | Prahalad & ramaswamy (2003) | Value is derived from the cocreation of experiences that extend beyond the boundaries of the firm. | Marketing |
| | | | Prahalad & ramaswamy (2004) | Interaction is the locus of cocreation of value and economic value extraction by the firm and that the cocreation experiences are the basis of value. | Marketing |
| | | | Vargo & Lusch (2006) | Value is cocreated and ultimately can only be determined by the customer. Value is always uniquely and phenomenologically determined by the beneficiary. | Services research |
| | | | Lusch et al. (2007) | Value can only be determined by the user in the 'consumption' process. thus it occurs at the | Services research |
| | | | Payne et al. (2008) | The value cocreation process involves the supplier creating superior value propositions, with customers determining value when a good or service is consumed. | Services research |
| | | | Maglio & Spohrer (2008) | Value is cocreated in dynamic configurations of resources (people, technology, information, organizations) connected internally and externally through value propositions. | Services research |
| | | | Vargo et al. (2008) | Cocreation of value inherently requires participation of more than one service system, and it is through integration and application of resources made available through exchange that value is created. | Services research |
| | | | Ostrom et al. (2010) | Cocreation (of value) is conceptualized as collaboration in the creation of value through shared inventiveness, design, and other discretionary behaviors. | Services research |
| | | | Ng et al. (2010) | Value cocreation is value-in-use, i.e. jointly cocreated between the customer and the firm for benefits.... customers have abilities to cocreate value... through customer interactions ...with resources. | Services research |
| | | | Plé and Chumpitaz Cáceres, (2010) | Not always co-creation: introducing interactional co-destruction of value in service-dominant logic | Services research |
| | | | Chandler & Vargo (2011) | The notion of a complex network is a fundamental aspect of value cocreation because of how actors, dyads, and triads create synergy among multiple simultaneous direct and indirect service-for-service exchanges. From this perspective, resources do not have value per se. Value is cocreated by actors when resources are used and combined in different ways. In S-D logic, all social and economic actors are resource integrators, active participants in value cocreation, and connected together in embedded systems of service exchange. | Services research |
| | | | McCollKennedy et al. (2012) | Customer cocreation of value is benefit realized from integration of resources through activities and interactions with collaborators in the customer's service network. that is, a multi-party, all encompassing process including at the very least the service provider and customer activities. Value cocreation can be defined as "benefit realized from integration of resources through activities and interactions with collaborators in the customer service network | Services research |
| | | | Vargo and Lusch (2016) | Value is cocreated by multiple actors always including the beneficiary. | Services research |
| | | | McCollKennedy et al. (2017) | Consistent with McColl-Kennedy et al.'s 2012 definition, customer value cocreation is defined as benefit realized through activities and interactions with others in the customer's service network. | Services research |
| | | | Ramaswamy & Ozcan (2018) | The cocreation of experiences (not the firm's offering) is the basis of unique value for the individual (consumer). | Services research |
| | **SD** | | Wetter-Edman et al. (2014) | Participation in design is considered a source for value co-creation for different reasons. | Design research |
| | | | Tanev et al. (2015) | Value co-creation has emerged as a new innovation paradigm emphasizing that customers and end users should be considered as active participants in the design and development of personalized products, services, and experiences. | Design research |
| | | | Yu & Sangiorgi (2018) | Incorporating user experiences, codesign tools, prototyping, system alignment, and user-centered approaches can enhance value propositions, optimize resource usage, and foster long-term organizational capability for supporting user value creation. | Design research |
| | | | Trischler & Westman Trischler (2022) | Positioning service design as core to the value creation process | Design research |
| | **PSL** | | Osborne (2020) | Thus, the individual, society, and the public service system comprise our three loci of value creation. | Services research and management |

*Figure 2. Value creation/co-creation in multiple perspectives.*

# 4. Conclusion

This paper has provided a comparative analysis of the concept of value, value creation, and value co-creation in four theoretical frameworks: goods-dominant logic, service-dominant logic (including service ecosystems), public service logic, and service design. The analysis revealed several similarities

and differences between the four theoretical frameworks, with respect to the concept of value, value creation, and value co-creation.

In goods-dominant logic, value is seen as something that companies deliver to customers through their products or services, with the customer being seen as a passive recipient of value. In contrast, service-dominant logic and service ecosystems propose that value is co-created by both the customer and the company through their interaction, with the customer playing an active role in the value creation process. Public service logic is concerned with the provision of public services and sees value as the social well-being created through the provision of these services. Service design emphasizes the importance of user-centered design and co-creation of value with customers. However, the study of value and value co-creation in service design is highly descriptive and value co-creation is considered as a design thinking only, lacking empirical research and specific design tools and processes to support it.

The comparative analysis also revealed several implications for future research and practice. For example, the importance of a customer-centric approach in value creation was highlighted, and the need for companies and governments to understand the needs and preferences of customers was emphasized. The importance of relationships and interactions between actors in the ecosystem was also highlighted, as well as the need to design services that meet the needs of all stakeholders in order to achieve value creation at different levels.

Implications for future research and practice include the need for further exploration of how value is co-created in different contexts, such as in public services or in service design. What matters most is how the design process, design activities, and design tools can support value co-creation at the ecosystem level. Additionally, there is a need to develop frameworks for measuring the co-creation of value in different contexts, as well as for understanding how different stakeholders can contribute to the value creation process. Finally, there is a need for more research on how value is co-created in service ecosystems, which involve multiple actors working together to co-create value for customers.

In conclusion, this paper has contributed to a better understanding of the concept of value, value creation, and value co-creation in four theoretical frameworks. The findings of this study provide a foundation for future research and practice in the field of management and design.

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