

Design Thinking and Value Co-creation- A theoretical Perspective of HIVE theory

Arabinda Bhandari¹ & Pragya Prashant Gupta²

¹ Affiliation Author: Post doctorate Researcher- Lincoln Global Post-Doctoral and Researcher Program, Lincoln University, Malaysia.

² Affiliation Author: Faculty of Commerce & Management, Future University, India

Email ID: arabinda_bhandari@rediffmail.com

Abstract:

Design thinking and value co-creation have been considered one of the most prominent innovative methods to solve any social issues or problem. Many researchers since 1995, are working in this area, however the theoretical foundation of this domain are highly fragmented and not well establish till date. So, the objective of this article is to propose a theoretical foundation in design and value co-creation research. Based on 58 articles collected from ABDC, A Star and A category journals, the applied theories have been analyzed and find out that it is an interdisciplinary field which applied many theories like learning theory, design theory, dynamic capabilities theory, service dominant logic etc. Those identified theories, alone cannot explain the collaborative innovation in dynamic environment. Thus, the proposed Human-centered innovation and Value Ecosystem Theory (HIVE Theory) able to explain the design thinking and value creation process. This proposed HIVE theory, has a practical application among stakeholders and would be helpful for policy framework.

Keywords: Design Thinking, Value co-creation, Theory development, value ecosystem, Systematic literature review. HIVE Theory

1. Introduction

Design thinking and value co creation has attracted significant amount of consideration among organizations to solve the wicked problem and to nurture the innovation culture (Buchanan, 1992). It is an interdisciplinary approach developed from engineering, economic, social sciences. This approach focuses on human- centered to develop a radical innovation related to societal problem, product and service-related issues. Design thinking approaches have been used by many organizations, like Apple, SAP, and others in association with the IDEO. Organization like SAP, highly focuses on design thinking research and invested in the Stanford University to develop the new products (Auernhammer & Roth, 2021). Now a days organizations are considering design thinking as a capability to get competitive advantage. Primarily, innovation and learning theories (Beckman & Barry, 2007) can be applied to explain the process whereas organization theory is also applied to it as because of its “thinking” aspect. In organization, many people are trained in analytical thinking to break down in the small component. Prominent leading journals like Academy of Management Journal and Journal of Product innovation Management recognized design thinking as a critical concept in innovation management. Apart from innovation centric characteristic of Design thinking, some of article considered it is an also a human centric emphatic approach to deal with the issues. As per the theory is concern, many theories still considered design thinking and value co creation is a different entity. There is no single theory which is able to expel how design thinking capabilities to value co creation and value creation can evolve over the time. The identified theories are unable to explain value co creation in design thinking in different industries like, public section, healthcare, education, rural innovation ecosystem. Based on the above gap identified, this article would like to know, (RQ1) what are theories have been applied in Design Thinking and Value co creation research? (RQ2) what are the characteristic of the design thinking and value creation research and (RQ3) what are the future research possibilities in design thinking and value co creation research. This article also have practical applications, like it would help different stake holder the understand the concept through theoretical Lense to formulate different policy framework.

The growing body of Design thinking and value co creation research is drawn upon from multidisciplinary areas, like engineering, Management, social science etc. Those theories collectively will explain how design thinking will create value co creation in organization. Below is short description of the different theories applied in design thinking and value co creation research.

2. Method used.

In this process, a Systematic Literature Review was done based on well-established SPAR-4-SLR methods (Paul, Lim, O'Cass, Hao, & Bresciani, 2021). In this process with the help of key words identification, articles are collected from Scopus database and based on the pre decided inclusion and exclusion criteria, like peer reviewed journals with ABDC, A Star and A Category journals, 58 articles focus on design thinking and value creation are identified. After that content analysis, bibliometric analysis, top modelling and thematic analysis is been done.

In this process, applied theories are been identified and analyzed. It is been seen that below mentioned theories are applied in the design thinking and value co-creation research.

Table 1: Different theories applied to Design Thinking and Value co-creation research

Theory	Main Authors	How It Is Used
Service-Dominant Logic	Stephen Vargo & Robert Lusch	Explains how firms and customers jointly create value
Experience Economy Theory	B. Joseph Pine II & James Gilmore	Focuses on customer experience as value
Dynamic Capability Theory	David Teece	Explains innovation adaptability and organizational transformation
Stakeholder Theory	R. Edward Freeman	Studies collaboration among multiple actors
Absorptive Capacity Theory	Wesley Cohen & Daniel Levinthal	Explains knowledge acquisition and integration
Organizational Learning Theory	Chris Argyris	Used to explain iterative learning in Design Thinking
Human-Centered Design Theory	IDEO tradition	Core philosophical base of Design Thinking
Actor-Network Theory	Bruno Latour	Explains interaction between humans, systems, and technologies
Practice Theory	Multiple scholars	Studies collaborative innovation practices
Institutional Theory	Paul DiMaggio	Explains organizational pressures affecting co-creation

Source: Author

3. The applied theories are explained in details for more understanding of the subject.

3.1 Service-Dominant Logic (S-D Logic)

The service logic (S. D Logic) theory is one of the most used theories applied in this area, which argued that value is not only created by the organization alone, it is a co-creation process, where both the parties like organization and stake holders play an important role. S-D Logic also able to explain how customer engagement activities can enhance the value creation in any organization. Traditional marketing theories believed that value is delivered to the customer through different products or service only. SD Logic theory believed that, it can be developed through interaction among firms and customers and stakeholders. The value depends on user experience, context, perception and emotional engagement. There is a strong complement between design thinking and S-D logic, as design thinking and value co creation process is human centric, collaboration in nature, engagement of stakeholders, having experiential learning.

3.2 Dynamic Capabilities theory

Dynamic capabilities theory believed that in a rapidly changed environment, organization encash the opportunities in the external environment through different capabilities while using the different organizational resources. This theory is widely used in design thinking as, it is considered as a capability of an organization to develop the innovation and strategic flexibilities. The said theory is an extension of resource-based-view (RBV) proposed by Barney(2005). While RBV focuses on the importance of resources for competitive advantage, dynamic capabilities theory discussed about the identified resource should be renew, reconfigure and transform regularly to get the competitive advantage. In relation to the design thinking value co creation research, dynamic capabilities theory helps to understand the capability component of Design thinking through empathy.

3.3 Stakeholder theory

Stakeholder theory believed that organization should create value through stakeholder engagement. It should not only focus on shareholder's engagement. This theory also gives the guideline to ensure sustainable success while emphasis on stakeholder welfare, ethical responsibility, collaboration, long term relationship and shared value creation. This theory is highly relevant in design thinking, as it focuses on different stakeholders to create the value. Design thinking process encourages different stakeholders during ideation phase, prototype development stage. Many researchers have used stakeholder theory to explain the design thinking value co-creation process to ensure the value co creation and sustainable innovation outcomes.

3.4 Organizational Learning Theory

Organization learning theory emphasizes on the learning process of an organization through different stages like, feedback, experimentation, reflection, adaptation etc. This theory explains how organization acquire, create, transfer and utilize knowledge to improve the performance. As the environment of an organization is continuously changing at very faster rate, organization learning is become crucial capability to adopt the environmental changes and innovate continuously. This theory focuses on the process of learning, by which organization develop knowledge and improve the capabilities over the time. This learning happens when organization acquire information, interpret experiences, and modify the behavior on insight of learning the experiences. This theory believe that learning is a continuous process. In case of single loop learning, error is corrected with out the changes of values and underlying assumption, where as in case of double loop learning, encourages the deep reflection and transformational changes. In case of value co creation through stakeholders is also a learning perspective from organization.

In case of absorptive Capacity Theory, it is believed that it is the organizational capability to acquire, assimilate, transform the knowledge for the practical use of the organization.

3.5 Human centered design theory

Human centered design thinking is one of the most important theory to understand the design thinking and value co creation research. This theory believed that innovation in product, service or any societal issue should began with the deep understanding of human needs, behaviour, culture, emotion and context etc. As per the human centered design theory, effective innovation emerges in an organization when organization know its customers and deeply understand the experience of the customers.

Human-Centered Design Theory provides a powerful framework for understanding innovation as a human-focused, collaborative, and iterative process. The theory emphasizes empathy, stakeholder participation, experimentation, and continuous learning as essential components of effective innovation. Its integration with Design Thinking, value co-creation, organizational learning, and digital innovation has significantly expanded its relevance across multiple disciplines and industries. Despite certain limitations related to implementation complexity and potential overreliance on user preferences, Human-Centered Design remains one of the most influential approaches for developing meaningful, inclusive, and sustainable innovation outcomes in contemporary organizations and service ecosystems.

3.6 Experience Economy Theory

Experience economy theory is one of the most influential theory in case of contemporary marketing. According to this theory, consumer is no longer required any functional product and service, rather they are more interested in the memorable, emotionally engaging experiences. Therefore, organization should not only offer a superior product but it should be a personalized experience with emotional connect.

Experience economy theory is strongly connected with the Service Dominant logic theory, as both theories are focuses on value creation through customer engagement activities.

In conclusion, Experience Economy Theory provides a comprehensive framework for understanding how organizations create value through emotionally engaging and memorable customer experiences. The theory emphasizes that experiences represent a distinct form of economic value that extends beyond products and services. By focusing on customer engagement, emotional connection, personalization, and immersive interaction, Experience Economy Theory has transformed marketing, service innovation, and customer experience management across industries. Its integration with Design Thinking, value co-creation, Human-Centered Design, and digital innovation has further strengthened its relevance in contemporary organizational and management research. Despite challenges related to measurement, authenticity, and contextual applicability, the theory continues to serve as a foundational perspective for understanding experiential value creation in modern economies.

4 Discussion and Conclusion

Future research in design thinking and value co creation required synthesis of the theory for better understanding of the application of this concept. As per the above discussion, individual theory like stakeholder theory, dynamic capabilities theory, design theory and others are unable to explain the collaboration innovation in dynamic environment. Thus, the integration of Service-dominant logic, human centered design, dynamic capabilities, organization learning theory, stakeholder theory into a single framework will be able to understand the empathy innovation driven innovation capabilities as well as digital transformation, sustainability and AI-enabled innovation ecosystem.

The proposed Human-centered innovation and Value Ecosystem Theory (HIVE Theory) is able to explain the design thinking and value creation process. It is an Interdisciplinary approach to explain the design thinking and value creation scenario.

Like other articles, this article also has some limitations, like data has been collected only from Scopus Database. And all the data are from ABDC, A star and a category journal only. This article has just

worked on theory development ideas. The future research should focus on proposition development, identification of different variables, hypothesis development and test them with data base.

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