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# POLITECNICO
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Designing products as platforms for experience
co-creation: Insights from the board games industry

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# Table of Contents

# Table of Figures

# List of Tables and Pictures

# Abstract

The transformation of marketing over the years generated new definitions and new strategies to the marketing literature. This transition has led to the service-dominant logic which focuses on customers rather than products. Therefore, the experience and the value perceived by customers have become the main elements of the competitive advantage. As the experience co-creation is now at the center of the discussion and research around service management and innovation, the role of customers and the service providers in the interaction with the service characteristics is crucial to determine the kind of perceived experience. Therefore, the objective of this thesis is to understand the key design elements, key actions, and key actors with their diverse roles that conclude in the co-creation of value. In order to provide a better approach, analysis is focused on the highly expanding board game industry and game design literature since games lie at the intersection between products and services. The study is based on five different interviews with well-known game designers from the industry and their comprehensive analysis. Analysis of the interviews has led to aggregated dimensions which are vital factors for experience co-creation. Then, a new concept has been illustrated based on the dimensions to provide a comprehensive approach to the co-creation of value. The results showed that the service providers design products as platforms that allow customers to use their own pre-resources and manipulate these pre-resources according to the guidance of the provider that concludes in co-creation of value. Additional guidelines are provided to understand and manage the key design elements that drive the potential experience of co-creation activities.

*Keywords*: *co-creation, service-dominant logic, value-creation, customer experience, game design, board games, value fulfilment model, operant/operand resources*

# Sommario

L'evoluzione del marketing nel corso degli anni ha portato a nuove definizioni e strategie nella letteratura di riferimento, con l'affermazione della service-dominant logic, focalizzata più sui clienti che sui prodotti. Pertanto, l'esperienza ed il valore percepito dai clienti sono diventati i componenti principali del vantaggio competitivo di un'azienda. Poiché la co-creazione dell'esperienza è ora al centro della discussione e della ricerca sulla gestione e l'innovazione dei servizi, il ruolo dei clienti e dei fornitori di servizi nell'interazione con le caratteristiche del servizio stesso sono cruciali per determinare il livello di esperienza percepita. Pertanto, l'obiettivo di questa tesi è comprendere gli elementi chiave del design, le azioni chiave, e gli attori chiave, con i loro diversi ruoli, che contribuiscono nella co-creazione di valore. Al fine di fornire un approccio migliore, l'analisi si concentra sull'industria dei giochi da tavolo, in forte espansione, e sulla letteratura della progettazione dei giochi, poiché essi si trovano all'intersezione tra prodotto e servizio. Lo studio si basa su cinque interviste a noti game designer, e sulla loro analisi. L'analisi delle interviste ha portato ad individuare le dimensioni aggregate che sono fattori vitali per la co-creazione dell'esperienza. Quindi, un nuovo concetto, basato sulle dimensioni individuate, è stato illustrato per fornire un approccio completo alla co-creazione di valore. I risultati hanno mostrato che i fornitori di servizi sviluppano prodotti come piattaforme che permettono ai clienti di utilizzare le proprie conoscenze preliminari e manipolarle secondo le istruzione del fornitore, risultando nella co-creazione di valore. Linee guida aggiuntive per comprendere e gestire gli elementi chiave del design che guidano le potenziali attività di co-creazione dell'esperienza vengono fornite all'interno dell'elaborato.

# Executive Summary

## Introduction

This study aims to investigate the experience co-creation during service and to provide a broader understanding on how service designers deal with a such complexity without having direct interactions with the customers. The objective is to identify the most important service design elements to realize products as platforms that drives the co-creation of value with a special focus on the game design literature and board games. Because games, especially board games, have seen a drastic increase in the recent years and they lie in the intersection point of services and products. Thus, the focus on board games help this study to develop a brand-new approach to the co-creation literature. This research provides a germane understanding on how different actors involve in the co-creation of value and help service providers design, facilitate, and manage the experience co-creation which grants strategic benefits to both sides.

# Literature

## Co-creation

### S-D Logic

The transition from goods-dominant logic to service-dominant logic has shifted gears with the introduction of Vargo and Lusch in 2004. Good-dominant logic was a view that focuses on the tangible inputs and outputs. Service-dominant logic, however, represents a dynamic, continuing narrative of value co-creation through the integration of resources and service exchange. Vargo and Lusch focused on how the value is co-created and what are the roles of the actors involved in the value-generating activities. They have introduced foundational premises and continuously updated these premises with the help of different authors and studies. Therefore, this new logic has been constructed by an increasingly large number of academics from different disciplines. The current final foundational premises in addition to axioms have been published by Vargo and Lusch in 2016. With the new updates, additions, and freshly identified axioms, S-D logic can be envisioned in terms of service-for-service and the mutual application of resources to benefit others. The concept keeps evolving to a more advanced theory thanks to the many scholars continuously contributing to the concept.

### Experience Economy

Applications and considerations on customer experience in the recent literature have expanded, numerous scholars have mentioned the topic and the service providers are now much more aware of the importance of the customer experience since they are the main source of competitive advantage. Pine and Gilmore (1998) have introduced the experience economy to the literature. According to the authors, the experience emerges when a company provides services as stages and goods as props to take individuals into the equation in a way that creates a memorable experience. These so-called experiences directly influence the customer's notion, satisfaction, loyalty, and the expectations of the service. Therefore, it is critical in order to manage the customer experience properly to extract benefits for both actors. Pine and Gilmour provided a

broad perspective to the experience economy and they also suggested five key experience-design principles.

The term value co-creation was mentioned first by Kambil, Ginsberg, and Bloch (1996) and it has become much more popular and widely known with the studies of Prahalad and Ramaswamy (2000,2004). The value creation process is described as a process in which the actors involved have somewhat become better off during the process. Value and value co-creation are elusive concepts and the process of value creation is still not completely identified. There are numerous definitions and studies on value and co-creation in order to provide a detailed framework for the concept.

The conceptual framework for value co-creation published by Payne et al (2008) provided a better approach to the concept. The process is defined as the processes, resources, and practices that customers or customer organizations use to handle their activities and relationships with other actors. There are three main processes that form the general framework. Customer value-creating processes, encounter processes, supplier value-creating processes are the main processes in the framework. Customer value-creating processes consist of different sets of actions taken by the customer to achieve a goal. This process includes two sub-categories: the relationship experience and customer learning. Supplier value-creating processes consist of three sub-categories such as co-creation opportunities, planning, and implementation & metrics. These categories should be taken into consideration in order to design and drive the customer's experience with the company. Lastly, the encounter processes are represented in the middle of the framework. Two-way arrows show the recursive and interactive nature of the process. This process includes touchpoints, contacts, or interactions of both the company and the customer. In short, the framework provides a significant tool to understand how customers engage in value-creating processes and provide a set of guidelines to manage and improve these processes.

Numerous authors have been trying to identify the definition of value co-creation and the roles of different actors during the process. Grönroos is one of the important authors that contribute to the studies on co-creation. Grönroos introduced new

conceptualization studies on co-creation to focus on value-in-use rather than value-in-exchange. The value fulfillment model defines the roles of the firm and the customer. The role of the firm is facilitating value by providing customers with a foundation for their value-creating activities in the forms of resources. The customers have two roles in the process. They play the role of value creator during the value-creating processes where they also add their own resources and skills. Secondly, they also play the value creator role through value-supporting interactions with the service providers during the processes. Later, Grönroos (2011) analysed the value creation concept in the context of service-dominant logic. He introduced different spheres during the value creation processes in order to define the roles explicitly. The provider sphere consists of the activities by the service provider such as design, development, manufacturing, and delivery processes. These activities are most of the time called production. The customer sphere consists of the activities and actions taken by the customer independent of the provider. In this sphere, the customer creates value without any interaction with the provider. Therefore, the service provider plays the role of the value facilitator and should be able to manipulate the customer's sphere in order to create value that is beneficial for both sides. In the middle, there is a third sphere which is called the joint sphere in which the provider may get an opportunity to engage in the customer's value-creating process as a co-creator. However, the customer again is the value creator in direct interaction with the provider. In summary, the formulation and conceptualizing of co-creation and value creation was needed to provide a precise definition of the concept.

Grönroos (2012) also developed a conceptual model to show how co-creation can be understood and analysed using the foundational and initial service marketing research. The model helps to understand, plan, and respond to customer-firm interactions from the perspective of both sides. The model is reproduced from the servuction model created by Eiglier and Leangeard (1975, 1976) and the interactive marketing model developed by Grönroos (1978, 1984). Grönroos combined these two marketing models to derive a new model of value co-creation in service. The model is based on the value-in-use notion which means the value co-creation emerges through joint collaborative activities during direct interactions of both sides. The model includes resources categories such as physical resources, contact employees, focal

customers, and fellow customers. The activities involved are accessibility effect, interactive communication, peer communication. These resources and activities are highlighted in the middle of the circle to denote the value co-creation platform. Depending on how effectively and successfully it is used by the parties, the value emerges from the platform differs. Thus, these resources and activities should be exploited in favor of both sides in a sense that influences the whole process. If this process is mishandled, it can lead to the destruction of value for the customer, and indirectly for the service providers. Grönroos also developed a second model that focuses on the co-creation of value for the service provider view. The process starts when a customer participates in the service process which provides direct interactions. The capabilities of the firm and the motivation of customers directly affect the whole process.

## Operand & Operant Resources

The resources during the value co-creation processes are the key points to facilitate the value. Not only the resources held by the firm and by the customers are critical, but also the integration of these resources is vital for value creation. There are two extensive categories of resources: operand resources and operant resources. Operand resources typically refer to the physical resources and they vary in quantity and quality. Operand resources are key resources especially for G-D logic but also important for S-D logic since they are used to facilitate co-creation activities. These resources also enable parties to achieve specific goals based on different features such as functionality and aesthetics. Operant resources, however, relates to the more extensive study field. They usually refer to intangible resources such as skills, knowledge, routines, cultures, information, and relationships. These resources are the key resources for this study since they represent the dynamic nature of the co-creation. According to S-D logic, operant resources have become the primary source of competitive advantage.

S-D logic initially regarded value as a term that is completely independent of the social context. However, social resources include both personal and cultural relationships and they directly affect the customer's notion of the service and the experience they realize. Thus, applying social construction theories to the S-D logic can uncover valuable insights for developing a comprehensive approach. Social construction theories have a perspective that humans can learn, adapt, and make their own choices and the perceived value depends on how individuals make sense of the services or products. According to Edvardsson (2011), value co-creation adopts the principles of social structures and takes place within social systems. Thus, actors involved in the process adopt a certain social position and role while interacting and they reproduce social structures during and after the process. Edvardsson developed a new framework to illustrate the social aspects of co-creation by adopting the social construction theories introduced by Giddens (1984). As a result, the author suggested some propositions to the S-D logic. Therefore, S-D logic keeps its continuous development with the contributions of different disciplines. Rafaeli and Vilnai-Yavetz studied the emotions as a connection of physical artifacts and organizations in 2004. The purpose of this study was to illustrate the sense-making of three dimensions that include emotions. These three dimensions are instrumentality, aesthetics, and emotions. Describing emotions can provide key guidelines to understand what connects artifacts, services, and organizations. Therefore, the authors analyzed the green bus subject to identify and describe the links between the emotions towards artifacts and towards organizations. Results showed that the sense-making of customers and their emotions directly affect their notion of the service, artifacts and they have linked these emotions directly to the organization. Therefore, the design and management of these emotions are crucial for value co-creation.

## Game Design

### The "Game" and "Play" Concepts

The "play" concept has a big history behind it. Almost as old as culture. Game and play concepts generally create confusion in people's minds. They are two different concepts but still have common areas and intersect with each other. Juul (2005) describes these differences in his classic game model. He identifies the "game" concept as a system that players faced and engaged with conflicts and specific rules than take their actions and see their identifiable and specific results and consequences.

"Play" is a rich and complex concept. It is divided into three categories. The first one is "being playful", it is the broadest concept and covers the other two categories. Because playfulness can be added in every moment and it is subjective. The second one is the ludic activities. It does not have strict rules. But it is structured in some way like throwing the ball to the wall. The narrowest one is the gameplay which is identified by Juul (2005). Games have rules to obey and they define the experience. Also, the gameplay requires human interaction, and this enriches the experience. In this context, games are subgroups of the play concept, and "play" is fundamental for games.

Roger Caillois (1962) introduce a matrix to classify the "play" concept.

His model covers almost all play activities like chance-based games, athletic activities, games focus on feelings, and impromptu and physical sensations. The vertical division of the matrix represented by Paida and Ludus. While Paida represents less structured forms of play, Ludus includes more rigid games with rules.

### Meaning in Play

A good game should offer its meaning during the play. The goal of successful game design is the creation of meaningful play (Salen and Zimmerman, 2003). The meaning emerges while playing with the interaction of players. Without play, games are nothing more than a deck of cards or a ball. Rules inside the games, lead players to make decisions, develop strategies, and outcomes of these actions offer different meanings

to the players. These meanings can emerge from a relationship between players, pieces, board, etc.

Salen and Zimmerman (2003) explain two ways of offering meaningful experiences: Descriptive and evaluative. Descriptive meaningful play is based on cause and effect relationships between actions and their outcomes. Meaning emerges while playing and it is unique. Players make moves, develop strategies and according to their outcome, they decide to do something new or not. The second one is evaluative. The game is meaningful as how successfully it shows the correlation between player's actions and their outcomes. In order to design successful and meaningful play, outcomes of the actions should be discernable and integrated. Discernability is about how much players can see the outcomes of their actions. The game should communicate with its players. Thus, players can track their positions and how meaningful are their actions. On the other hand, integrated outcomes help players to see the big picture, how one move affects all the game experience. They can feel themselves in charge and co-creators of the result and value. Discernability and integration of the outcomes are both important components of meaningful play. The meaningful play has a crucial role in the engagement of players and enhances the gaming experience.

## Rules in Games

Rules are curial for the games. They are the differentiation point of the gameplay from the other play activities. Players make moves and take actions under the rules in order to achieve their goals. Rules are also important to design a meaningful play. Designers see rules as their tools to shape players' experiences as sculptors. Also, they help players to learn and play the game. Rules increase the playability of the games and become their formal identity. When more than one specific rule combined, they create the game mechanics. Multiple games can have the same game mechanic. Because they are just the formal system of the games, not explains all value of the gaming experience.

Rules have some characteristics. They need to limit and shape the player's actions with instructions and increase the playability. Rules need to be complete and obvious and not leave a space for ambiguity also be repeatable to transfer easily. Rules should be the same and fixed for every single player during the same gameplay. Lastly, rules

should bind players in order to prevent cheating or etc. These characteristics are essential for the rules and without well-designed rules, the formal system of the game would be destroyed and makes it impossible to play the game.

There are three kinds of rules (Salen and Zimmerman, 2003). Operational, constitutive, and implicit rules. Operational rules create a guideline for the play. They are generally like instructions or manuals and written by designers for the players. Also, they explain how players should play the game and interact with each other and the game. Constitutive rules represent the logical and mathematical sides of the formal structure. They are very abstract and clear. Implicit rules are unwritten rules to form players' behaviors and ethical values. They are dynamic rules and change according to the macro environment and personal characteristics. Operational and constitutive rules are important for playability and formal structure of the games, but implicit rules play a critical role in meaningful play.

Each player is different from each other. It is hard to understand and predict how they are going to react to the rules. Salen and Zimmerman (2003) identify five groups of players. The standard player, the dedicated player, the unsportsmanlike player, the cheat, and lastly the spoilsport. These groups help designers to categorize players according to their degree of lusory attitude, relationship to rules, and their interest in winning. But this model is not static. These roles can change even inside the single gameplay. It is essential for designers to predict and understand players' actions and desires in order to design successful game mechanics and rules. But sometimes players find blank spaces, weaknesses in the rules and use them to win the game. This is called "degenerating strategies". It is not directly cheating but players exploit and bend the rules if they are not properly designed.

Designers should admit that it is impossible to predict every players' actions. The iterative design approach is a successful method to learn from players and their reactions to the rules during the design phase. If designers make playtests and reflect on the results, they have a higher chance to design a successful game.

Rules as a single component are enough to understand games properly. Players should play the game, live through it to reach the meaning. Players interact with each other and the game, think, develop strategies, feel emotions. A successful game should stimulate players' senses and engage them. The more the experience is sensuous the more it is memorable.

Sutton-Smith (1986) generates a model to identify the five elements of the game experience. They are visual scanning, auditory discriminations, motor responses, concentration, perceptual patterns of learning. His research is focused on digital games, but this model can be used for all games. Players make internal decisions according to their motivations with the help of rules and they take actions. A meaningful play shows discernable outcomes to the players and they make other decisions according to these outcomes. This is the basic flow of the games and creates a guideline for designers to understand how players play the game and what are the possibilities to offer meanings in these micro and macro moments.

But how can designers shape players' experience without having a direct interaction? This is the biggest dilemma of the game designers. Because actual experience for players starts when they start to play. Game design methodology offers some tools for designers like rules, themes, storytelling, game mechanics. These are opportunities for them to shape players' experiences without being there, through their games. While designing the macro-level experiences, designers should give due importance to micro-level decisions too. Because micro-level moments are the ones who actually shape the result of the games through their outcomes. Moreover, the core mechanics of the game shapes the interaction of the players. They create guidelines and patterns which are essential for the gameplay.

Designers should direct players without holding their hands too much. They leave possibilities for them to shape their own experience and to boost interactivity. A successful game offers a non-flat emotional journey with the help of the core-mechanic, themes, story, and tools.

Pleasure is a complex term and it can only be understood when people experience it. When successfully designed rules and core mechanics combined with the theme, the game tenders' pleasure for the players. If they have the pleasure, they feel satisfied and want to play the game again. This exploits the replayability of games. There is not a single way to feel pleasure inside the game. It can emerge through interaction, story, a twist in the game, a sense of achievement, etc. Designers use some tools to create this pleasure. One of them is rules. Rules constraints players but also increases pleasure when they reach the golden apple. The second one is the "magic circle". The magic circle is the magic world that designers create with themes and stories for the players. When players enter the magic circle, they have a chance to experience new worlds during the gameplay. Csikszentmihalyi (1991) defines the magic circle as "autotelic experience" which means self-goal. He believes that games are autotelic, players play the games with intrinsic motivation, to reward oneself. It is not important they win or lose; they focus on the pleasure.

Salen and Zimmerman introduce the "double-seduction model" to explain the two stages of the magic circle that is entering the circle and keep staying in it during the game. The first seduction is about the attraction of players. It does not need to happen when they start to play. It can happen even before buying the game. Designers attract players' attention with the theme and story behind it, maybe with commercial or the design of the box, etc. This helps players feel involved. The second seduction is about staying in the magic circle and feel engaged. It depends on the game experience and pleasure, designers use tools like rules, core mechanics to make this happen.

Le Blanc generates a model to categorize pleasures inside the games. They are sensation, fantasy, narrative, challenge, fellowship (social context), discovery, expression (self-discovery), and submission. These categories help to categorize games and they are useful for the marketing of the games. This framework creates a common understanding between players for the categorization of the games. They can choose the most interesting one for them and make comparisons between games. Another model is the Caillois Model that categorizes games into four groups: Agon (competition-based games), Alea (chance-based games), Mimicry (Simulation), Ilinix (vertigo).

Game flow is also another tool to offer pleasure. Flow means the maximum and the desired level of the satisfaction feeling, it helps to feel engaged and feel emotions. According to Csikszentmihalyi (1991), the flow state has four components which are: the concentration, the merging of action and awareness, the loss of self-consciousness that means become a part of the game character, and lastly the time transformation. Flow state is not an easy task to achieve. In order to make the flow state happen, designers should provide these four prerequisites: A clear goal and feedback, challenging activities or players, and the sense of being in charge but cannot predict the final outcomes.

While shaping the desires and creating engagement, designers should focus on the playability and replayability of the games. Games need to be easy to learn but hard to master. In this way, players feel engaged easily with the game but want to play more in order to be more successful. Pleasure can differ from game to game. Because designers leave "space of possibilities" for players. Thanks to this opportunity, players have a chance to shape their experience and make each of them unique. But the game needs to offer appropriate challenges for its players' skills. To achieve that, designers should know their target's characteristics. If players are too skilled for the challenges, they probably feel bored. In contrast, if the challenges are too high, they can give up. This is fragile and hard to balance.

Having a goal inside the gameplay gives motivation to players for starting and staying inside the game. Rules help designers to create ultimate and micro goals for players. Micro-level goals keep players engaged and give a sense of achievement. They create ups and downs, provoke players' emotions, and enrich satisfaction. Besides, games contain positive or negative reinforcements inside them. They bring a surprise effect with them, increasing the excitement level. Hence, designers can shape the player's behaviors and invent new concepts to offer pleasure with the help of these tools.

## Narrative Play

If there are a story and event series that follows each other inside a game, this means that the game is narrative. Correspondingly, there are characters and personification for the player to make them feel engaged and involved with the narrative. Lastly, these events need to share some common components, maybe patterns. These are the three conditions of narrative gameplay. Designers use themes, stories to support the

narrative experience and decision-making enriches the narrative concept, and game experience. The narrative leads players to enter the magic circle and feel part of the game and the characters. Games have two layers of narratives. Le Blanc (1999) explains these two structures as embedded and emergent narratives. The embedded narrative is the story inside the game, it is there before the players and enriches with the interaction. The emergent narrative happens within the game, the player's actions and decisions shape them. That brings the uniqueness and surprise effect with it.

The narrative gives meaning to the game, makes it more memorable. It becomes word of mouth, increases replayability. Give the opportunity to the players to build relationships and communities.

## Games in Social Context

The interaction starts when more than one person plays the game. When there is an interaction, social play emerges in two levels. Internally and externally. Internal social play happens because of the rules and structure. Designers interfere and shape it. These roles are dynamic and can transform during the game. In contrast, the external level of social play comes from the pre-relationships outside the game. They affect the players' decisions and actions. Because it is nearly impossible to leave all pre-relationships outside the game. The Sutton-Smith model is useful to understand the internal social roles and motivation of players. It also includes the counteractor's reactions which are valuable to understand dynamics inside the game. To understand the external social context, there is a Bartle Model. It studies social roles in a larger context. This model includes four groups: Achiever, socializers, explorers, killers.

Social interaction helps players to build relationships for one single play or for the long-term. In order to build relationships, players need to feel safe and trust in the game and each other.

Metagaming is an approach to understand the relationship between the game and the environment. Social roles, interactions, experiences, etc. It can be explained within four categories: what players bring to the game, what are their takeaways, what happens between the plays, and during the game. It is an influential concept to design successful games because it considers nearly all possible events in, between, during, after the gameplay. Metagaming helps to design meaningful play.

# Methodology

The aim of this study is to explore how customers interact with the service characteristics, what is the role of the customers and companies during these interactions and how can service providers design these interactions in order to improve the perceived experience. While exploring who and how co-creates, the study focused on the highly expanding board game industry. Thus, in order to get better insights from the board games industry, five interviews were conducted with five different well-known game designers across the world.

Board games date back to ancient times in history. In recent years, the industry has seen a renaissance and is expected to carry on growing. The market is worth over $9.27 billion and is expected to reach $10.1 by 2021. This growth is due to several reasons such as the internet, digitalization, review and playthrough platforms, crowdfunding, societal changes in the communities. Most importantly, real human connection and tangible experience are the key points to understand why the board game industry has seen such expansion in recent years.

Five designers were communicated according to their background and signature game. The interviews were designed by paying explicit attention to our research topic and the questions were selected in the light of our literature search. Every interview had key questions for uncovering the roles of the parties involved in the service. The interview protocol was carefully created without having leading-the-witness questions. Later, the questions were revised as the research progressed.

Rob Daviau is a well-known American game designer. He is the creator of legacy games which was a radical innovation in the industry. Risk Legacy and Pandemic Legacy are his signature games. The most important points of the interviews with Rob Daviau are the storytelling and roleplaying. He indicated that designers need to leave some space for players to write their own stories. He also mentioned symbolism and sense of familiarity during the interviews. From his words: "... people like a story, that's quite human. Humans have been telling stories for a long time, whether they are painting pictures in a cave or coming up with their myths for their tribe."

Matt Leacock is a famous game designer from America. He was working as a user experience designer in companies such as Yahoo!, Apple, Netscape. His signature games are Pandemic and Forbidden Island. Additionally, in collaboration with Rob Daviau, they have designed Pandemic Legacy which was a huge success. His perspective is critical for our research since he has a professional career as a user experience designer. The interview with Matt Leacock was focused more on the service design because of his background. He mentioned that he is basically providing a system as a platform for players to enter and let them create their own models for how to play it well. He also mentioned involvement and talked about how to involve the players and make them satisfied regardless of the outcome. He basically designs a kind of waves in his games to send people on an emotional journey of ups and downs. He also provides guidance without holding player's hands too much to let them create their own journey.

Klaus-Jürgen Wrede is a German board game designer who is very well-known for his games such as Carcassonne and The Downfall of Pompeii. He is very successful at transforming simple game mechanics into a game with a story and history behind. Thus, his perspective is also critical for our research. Carcassonne was selected as the Game of the Year and received the German Game Award in the same year in addition to various international awards. Klaus-Jürgen Wrede loves to offer dilemma-mechanics in his games. He designs his games to provide some naturals to the players, but these naturals get worthier in the hands of players. This is a great perspective on co-creation for our study. He also mentioned that the sense of belonging is an important point to make players feel satisfied regardless of the outcome.

Steve Jackson is a very well-known American game designer who is especially known for his game called Munchkin. He received a high number of Origin Awards. He represents his sense of humour in his game with roleplaying mechanisms. He was featured in Famous Game Designers Playing Card Deck as the king of clubs which includes legendary game designers. He provided new aspects to the experience co-creation and his perspective is valuable for our research. According to Jackson, the key point for success while designing is the momentum of the gameplay. He designs

his games to let players openly and blatantly follow their own interest at almost every moment. This freedom for players to behave in any way increases the engagement and satisfaction of the players. He also mentioned the importance of the rules. Rules should be adjusted so that players can focus on the gameplay rather than complex guidelines. He also uses blank cards to let players personalize the game.

Jonathan Fryxelius is a Swedish game designer working with his family-owned board games company. As a family, they have found their company thanks to the inspirations their father provided throughout their childhood. FryxGames are known for their game Terraforming Mars which received numerous awards such as Spiel der Spiele Hit, Jogo do Ano Nominee etc. He also helped this study on how simple service characteristics can be transformed into an exciting customer journey. The important points of the interview with Jonathan Fryxelius was about using everyday objects in a completely innovative way while designing the games. This perspective also represents the innovation of meaning and lets players experiment with these objects. He also mentioned the importance of the story. FryxGames always starts their game with the story. Then, they design the rest of the game according to the story and theme in order to provide germane mechanics to the players. He also indicated that the complexity of a game is important and should be perfectly adjusted like a chess game. It should be simple to learn but hard to master so that they can achieve playability and replayability in their game.

# Findings

Since the interviews are qualitative, the studies of Gioia et al. (2013) on qualitative research have been adopted to provide a systematic approach. In this approach, there are basic assumptions. Firstly, the informants are accepted as knowledgeable agents so that they know what they want to do and can explain their thoughts accordingly. Second assumption is that also the researchers are knowledgeable people too so that they can examine the patterns in the data, uncover insights and concepts that might escape the awareness of the informants. The analysis consists of three steps in addition to the final dynamic picture. In the 1st-order analysis, there is an effort to adhere to the informant's terms without distilling categories. So, various sentences of the designers were selected first and written down without any interpretation. In 2dn-order analysis, the focus was more on the attempt to distill categories that help researchers describe and explain the factors that drive experience co-creation. Then, these 2nd-order categories were summarized into the 2nd-order themes to provide more structured data. As a final step, the themes were categorized into aggregated dimensions which include the most important points that drive potential co-creation activities.

## 1st Order Concepts

- We always start with the theme, we start as storytellers.
- I develop a game from the theme not from an abstract mechanism.
- The players usually like the theme that we are telling. If they like the story they feel more engaged.
- Players experience another world, an historic event or natural scene through themes.
- There are very famous games that basically uses a fractal pattern but the story behind them makes it interesting and worth to play.

- Monopoly is more fun if you let yourself fully into the role of the greed-crazed real estate speculator and heartless landlord.
- I think that when people play our game, it's like being a part of a story. You get engaged in the game.

- A little bit guidance for players inside the game is essential, otherwise, the game would break and players would make mistakes.
- Rules are essential to shape these unpredictable moves.
- The people like the lightness of the game and the rules - but need to make strategic and deep decisions. This combination lead to the success.
- If the game is exciting with small rules and you can focus on the game and not on the rules.
- Anything that makes learning easier automatically makes it easier to teach the game to friends - which is a vital part of the experience.
- A game should be simple to learn but should be hard to fully grasp and you shouldn't ask how it works.
- It is not easy to design an exciting game with the simple rules.

- The player has to feel the dilemma and has to act. he must be active
- We had to make sure that the challenges that was appropriate
- Despite being a "light" game, the original set and all follow-ons are thoroughly tested for balance.
- Inside the game there is a period of obstacles and after thar a little bit relief. This is a loop.
- If everything is just more flat, players won't feel engaged.

- During the competitive games, players less likely tend to share their experiences than the co-operative games. Players don't speak to much with each other.

- I just kind of set up a system and then let the players enter it and then manipulate however they want.
- We don't want it to be so much on rails that you're just playing out the story like a choose your own adventure.
- The designers give you all the pieces to the story and they will write their own stories.

- Leaving some blank cards are important because Players do like to personalize their games.
- The game is like a sponge - open for the temperaments and characters of the people

## 2nd Order Themes

Storytelling

Specific themes to enter the magic circle

Roleplaying

Guidance without holding user's hand to much

Freedom for users to make their own decisions

Being easy to learn hard to master

Appropriate challenges for customer's skills

Non-flat experience

Effects of genre to the communication

Foundation for user to create their own experience

Leaving space for users to contribute

## Aggregate Dimensions

ATTRACTION ENGAGEMENT

PLAYABILITY REPLAYABILITY

BALANCE OF BOREDOM/ANXIETY

INTERACTION

UNIQUENESS

PERSONALIZATION

**Figure 1**: *The analysis of the interviews from 1st order concepts to aggregated dimensions*

**Figure 2**: *The analysis of the interviews from 1st order concepts to aggregated dimensions*

The final aggregated dimensions are

- Attraction and Engagement
- Playability/Replayability and Balance of Boredom/Anxiety
- Interaction, Uniqueness and Personalization
- Involvement and Satisfaction
- Sensorial & Memorable Experience

These dimensions represent the most important points of our interviews with the designers and the service providers should achieve these dimensions with their

service design in order to be able to co-create value with the customers. In the discussion part, also the key design elements that conclude in these dimensions were analyzed in order to provide a comprehensive approach to the co-creation of value.

## Discussion

After the research on service dominant logic, co-creation and game design we decided to make further analysis of the interviews and aggregate dimensions based on value-in use and value-in exchange concept model generated by Grönross and Voima in 2013. Each aggregate dimension analyzed based on this model to understand what providers and customers add in order to facilitate co-creation. Each dimension is analyzed schematically.

First aggregate dimensions are attraction and engagement. Customers bring their experience and knowledge from their everyday life to their sphere. On the other side, providers create themes and place them into stories, and offer a magic circle for customers to experience a new world. As a result, the combination of these spheres creates attraction and engagement for the customers.

Playability and replayability are important dimensions for services to become successful in the long run. Playability is important for the target audience in order to adopt our service. Providers should appropriate rules and game mechanics to lead customers to make their decisions and strategies with their skills and knowledge to offer a meaningful service experience. The balance of boredom and anxiety is needed to design a non-flat experience and boost engagement with the service.

The other group of aggregate dimensions are interaction, personalization and the uniqueness factor that comes as a result of these two. Providers shape the internal interaction with the rules and service system. But when they leave a space of possibilities, customers can manipulate and be part of the value creation. In this way, each service experience becomes unique and this increases the re-usability of the services.

The last group of dimensions includes involvement, satisfaction, and intrinsic motivation. These are what exploits the customer's service experience and feel satisfied with it. Providers set micro-micro goals and communicate with them through discernable feedback. Customers feel motivated, put their knowledge, motivation, and

strategies to reach that goal. They feel involved and the integrated reward-punishment system provide motivation for them.
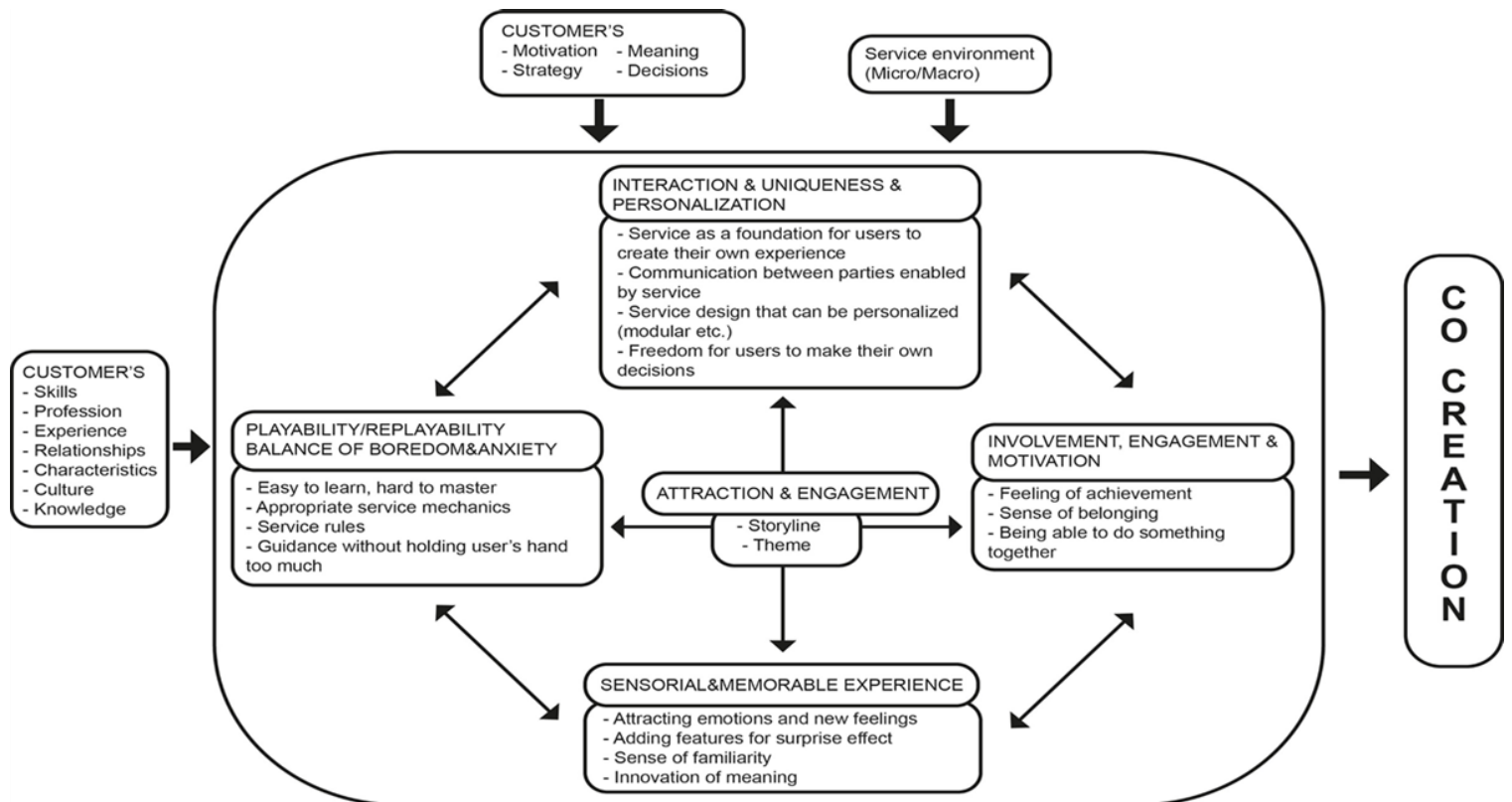
After these groups of dimension analysis, we decided to put them together in order to create a framework for service providers to explain what the key design elements for experience co-creation are. This framework reproduced from the methodology used in Corley and Gioia's study in 2004.

On the left side the framework starts with the customers' resources that they put into the experience. Their skills, knowledge, experience, and relationships can change the whole service perception and outcome. On the top, there are two factors that are not fully dependent on the service but affect all the experience. Customer's motivations, decisions, strategies emerge during the service and the environment that service experienced has a major effect on the notion of value. In the middle, there are the aggregated dimensions that are identified by us.

- Attraction and Engagement
- Interaction, Uniqueness and Personalization

- Playability/Replayability, Balance of Boredom and Anxiety
- Involvement, Engagement, and Motivation
- Sensorial and Memorable Experience

These listed dimensions are essential for services for experience co-creation. Service providers can be seen as facilitators of the value and services need to be designed in order to encourage customers to shape their experience with their own resources. These dimensions are interconnected, and the framework is dynamic inside the service. They are influenced by customers' resources, motivations, macro environment and also by each other. To conclude, this framework is designed to help service providers to be a guideline on which and how these dimensions to facilitate and what is the customer's role in this statement for the co-creation of value.

# Conclusion

This study provides a comprehensive approach to the co-creation concept in a way that has never been addressed by combining various studies of service, co-creation, and game design literature. The framework created helps service providers to understand the key elements that create value so that they can design, facilitate, and manage the experience co-creation which means benefit for both sides. The results of the analysis have led to some important points for service providers. The final model demonstrates how value emerges in certain dimensions between the service and the user and how service providers can reach these dimensions with their offerings. The aggregated dimensions which directly affect the co-creation of value are playability/replayability for the usability and reusability of the service, the balance of boredom and anxiety to make support that, interaction and personalization elements for uniqueness, involvement, engagement, and motivation to keep customers inside while offering sensorial and memorable experiences. In the middle of these dimensions, there is attraction and engagement which has a relationship with all and feeds on them. As a result, the study confirmed the latest updates of the foundational premises of S-D logic with the help of studies of various authors from different disciplines. In this sense, it can be said that the service providers use their own resources to develop their offerings for users to create their own value while using their service. Service designers should take these aforementioned dimensions in order to facilitate the co-creation of value. Because customers also use their own pre-

resources and manipulate these pre-resources with the help of service design, characteristics, mechanics, and guidelines provided by the service provider. The study also suggests guidelines for service providers on how to use these key design elements based on the game design literature.

# The Purpose of the Research

This research aims to investigate the experience co-creation in the service and to develop a proper roadmap to service providers with insights from the board game industry to gain such insights on how designers deal with such complexity without having a direct interaction with their customers. The objective is to identify what are the key design elements for the service industry to design products as platforms and offer the co-creation experience on these platforms.

Service-dominant logic and co-creation concepts are in the rising trend. But the literature on these concepts, especially for the co-creation are still abstract. Experience co-creation is in the center of service management and innovation. For this reason, service providers and designers should be able to structure services to maximize co-creation elements. But how and when to structure and configure services to experience co-creation? The role of the provider and the contribution of the customers in this context is still not clear and identifiable even though there are numerous research and papers. How both these two actors engage with each other and involve in which context with the service during the value-creation process, directly or indirectly. The frameworks and concepts provided in the literature focus on co-creation in an all-encompassing process but do not provide a comprehensive approach to the value-creating activities. Therefore, a brand-new approach to the literature was needed to understand the key design elements and actors involved in the process to help service providers design, facilitate, and manage the co-creation concept.

Games stand the intersection point of services and products. Besides, their outputs and game experience are shaped by the player's actions and their outcomes. It is undeniable that players contribute to the value-creation. Due to these reasons, game design literature and the board game industry are investigated in order to develop a deeper understanding and uncover new insights to understand both parties' roles and develop a proper framework for service providers to offer co-creation experience.

# 1. Literature

## 1.1. Co-creation

### 1.1.1. Service-Dominant Logic

The evolution of marketing over the past 100 years has brought forth new aspects, new definitions, and new dominant logic to the marketing literature. Conceptual transitions from goods dominant logic concepts to service-dominant logic concepts have emerged.

A good dominant logic (G-D logic) was a view that the tangible output and various transactions were central. Because the initial marketing logic was focused on agricultural products and later, on more physical goods. G-D logic depends on the value-in-exchange meaning of value. In G-D logic, the firm creates or manufactures the value and distributes it to the market, generally through the exchange of goods and money. In this logic, the roles are specific, and value creation is linked to the firm's activities.

Marketing literature barely referenced "intangible products" or "services". These terms were later linked to the value-added services to enhance the good that is being offered (Converse 1921, p. vi; Fisk, Brown, and Bitner 1993).

The new dominant logic that has changed the overall marketing focus was service-dominant logic (S-D logic). The S-D logic is basically the activities deriving from the knowledge and abilities applied by people for themselves and others, and the activities they wish done for them that are only used in the process of the service. These activities are the source of value and hence the purpose of exchange which is called service-for-service exchange (Vargo and Lusch, 2004).

The new alternative is associated with the value-in-use meaning of value (Vargo and Lusch, 2008a). In S-D logic, the roles of different parts are not very well defined, and

the value is always co-created through resource integration and application of competences.

Even though the logic is a quite new perspective, not all ideas were entirely new. For example, Bastiat (1848/1964) had mentioned that "*services are exchanged for services*", Prahalad and Ramaswamy (2000) had been justifying value co-creation before Vargo and Lusch (2004a) and before them, Ramirez (1999) had studied early recognitions of value co-creation back in the history.

### 1.1.1.1. Foundational premises of S-D logic

The new concept, S-D logic, was developed on foundational premises (FPs; Vargo and Lusch 2004a, 2006). These FPs are not a set of distinct "*rules*", instead they serve as an established and collective effort to build a better marketing-grounded understanding of value and exchange. The original foundational premises consisted of eight different premises.

| FP1 | The application of specialized skill(s) and knowledge is the fundamental unit of exchange |
| --- | --- |
| FP2 | Indirect exchange masks the fundamental unit of exchange |
| FP3 | Goods are a distribution mechanism for service provision |
| FP4 | Knowledge is the fundamental source of competitive advantage |
| FP5 | All economies are services economies |
| FP6 | The customer is always a co-producer |
| FP7 | The enterprise can only make value propositions |
| FP8 | A service-centered view is customer oriented and relational |

**Table 1**: *S-D logic foundational premises by Vargo and Lusch (2004)*

FP1 is the first foundational premise of S-D logic which basically mentions service-for-service exchange. Ballantyne and Varey (2006) pointed out that "*unit of exchange*" is intrinsically a good-centric phrase because it advocates that what is being exchanged is units of output even though S-D logic hinges on processes. Because of the aforementioned reasons, the phrase "*unit of exchange*" has been changed to "*basis of exchange*" by Vargo and Lusch (2007). More importantly, since the definition of operant resources which is the "*application of skills and knowledge*" is described by Vargo and Lusch (2004a; 2006) as "*service*", the phrases were substituted by "*service*"

in order to demonstrate more directly the role of service in exchange. So, the new FP1 was "*Service is the fundamental basis of exchange.*"

FP2 states that irrespective of the type of organization, the fundamental process does not change; people still exchange their competences for the competences of others in marketing systems. People still exchange their services for other services. For the reasons associated with the word "*unit*" mentioned above is also not appropriate for FP2. Hence, the word "*unit*" was substituted with "*basis*" in FP2: "*Indirect exchange masks the fundamental basis of exchange.*"

FP3 highlights the goods being the distribution channel for service provision. Knowledge and skills can be transferred through various ways such as directly or through training. Additionally, they can be transferred indirectly by embedding these competences in objects so that tangible products can be acknowledged as embodied knowledge or activities (Normann and Ramirez 1993). In other words, goods acquire their value through usage and the service they provide.

FP4 means that the foundation of competitive advantage and economic growth is knowledge. Knowledge is often referred to as two different aspects. The one is propositional knowledge which is generalized knowledge, and prescriptive knowledge, which is called techniques (Mokyr 2002). As the difference between operant and operand resources was not very familiar, Vargo and Lusch did not use the term in the original FPs. Since the distinction between these two terms is now relatively more common and reverberated, Vargo and Lusch modified the FP4: "*Operant resources are the fundamental source of competitive advantage.*" Additionally, Ballantyne and Varey (2006) preferred to refer "knowledge" as "knowledge renewal" because they argue that the knowledge renewal processes operating at the micro-level are the core of competitive advantage and can be achieved by communication and dialog (Ballantyne 2004) but Vargo and Lusch see "renewal" as already contained in FP4 and accepted their point as an elaboration of the premise.

FP5 evolved from the idea of "service" being the foundation of exchange and the goods being the distribution mechanism. The term "service" is becoming more and more important with increased specialization and outsourcing. Later the term "services" is

substituted by "service" since these two terms are associated with two different logic and should not be confused. The plural term, "services", usually stands for a unit of (intangible) output, which is correlated with goods-dominant logic. The singular term, "service" used to refer to a process of using one's competences for the benefit of another entity and it is associated with service-dominant logic. FP5: "*All economies are service economies.*"

FP6 is directly about co-creation and states that value creation emerges through interactions between actors. Later the premise was modified by authors since there were a lot of debates about the term "production" which means making units of output. Vargo and Lusch mentioned that FP6 represents one of the instances which is associated directly with the G-D logic lexicon in their early publication. The emphasis was aimed to be on the collaborative aspect of value creation but apparently become lost in meanings of "production." Since the differentiation between co-creation and co-production is vital for S-D logic, they have modified FP6 as "*The customer is always a co-creator of value.*" However, they still argue that co-production has a place in S-D logic and they suggest that it is a part of co-creation of value but the involvement is optional and can diverge from none to all to comprehensive co-production activities by the user.

FP7 was modified after the misinterpretations on the meaning of the premise.  Since a normal reader could understand that once the enterprise offers its value proposition, the process of value creation on its side is finished. Vargo and Lusch mentioned that this was not the intention. The intention was to bring forth that the enterprise *cannot unilaterally create and/or deliver value.*  The modified version of the premise suggests that the enterprises can offer their competences, applied resources, and knowledge for value creation and, jointly (and interactively) create value with the help of their value provisions but they cannot create and/or deliver value separately. Revised FP7: "*The enterprise cannot deliver value, but only offer value propositions.*"

FP8 was also modified by an additional word to prevent misinterpretations. Originally it was intended to be a positive expression. With S-D logic, value creation has become an interactive process in the sense that the firm and customer should be recognized in a relational context. Furthermore, in S-D logic, value is always specified by the

beneficiary of service. FP5 states that the "co-creation of value" is inherently relational. To highlight this normative/positive distinction, Vargo and Lusch added the word "inherently" to the FP8: "*A service-centered view is inherently customer oriented and relational.*"

| FP1 | Service is the fundamental basis of exchange |
|------|------|
| FP2 | Indirect exchange masks the fundamental unit of exchange |
| FP3 | Goods are a distribution mechanism for service provision |
| FP4 | Operant resources are the fundamental source of competitive advantage |
| FP5 | All economies are service economies |
| FP6 | The customer is always a co-creator of value |
| FP7 | The enterprise cannot deliver value, but only offer value propositions |
| FP8 | A service-centered view is inherently customer oriented and relational |
| FP9 | All social and economic actors are resource integrators |
| FP10 | Value is always uniquely and phenomenologically determined by the beneficiary |

**Table 2***: S-D logic foundational premises updated by Vargo and Lusch (2007)*

Later, two more premises, FP9 and FP10, were added to foundational premises respectively in 2006 and in 2007 by Vargo and Lusch.

FP9: "*Organizations exist to integrate and transform microspecialized competences into complex services that are demanded in the marketplace.*" S-D logic advocates that organizations exist because the entrepreneur, with his/her competences, can anticipate a service that people want and will pay to acquire and integrate resources to offer and provide the service. Thus, the most vital operant resource in the economy is the entrepreneurial mindset, skills, competences, and collectivity of the entrepreneur. These individuals can combine these resources and competences in an organization and exchange applied organizational competences with customers. One year later, Vargo and Lusch realized that the role of resource-integration is applicable not only to the entrepreneurs but also to all economic entities (Arnould 2006). Thus, the term "organizations" is not suitable because individuals are also resource-integrators. Therefore, they revised FP9 as "*All social and economic actors are resource integrators.*"

FP10: "*Value is always uniquely and phenomenologically determined by the beneficiary.*" This premise suggests that the value is distinctive, experiential, and contextual. The experiential description of the value was not adequately defined.

However, the authors preferred the word "phenomenological" over "experiential" to prevent this term from evoking a meaning of something like a "Disneyworld event."

The latest version of the foundational premises published by Vargo and Lusch in 2007 with new additions and modifications are summarized in the table below.

Later in 2016, four of the foundational premises were modified, one new FP was added, and five of the eleven FPs were identified as the axioms of S-D logic (Vargo and Lusch, 2016). These axioms are the ones from which the other premises could be evolved.

1.1.1.2. New updates to the foundational premises

FP4 was modified to be clearer on the interpretation of the premise. The term "advantage" can be interpreted as a competitive connotation. According to Vargo and Lusch, "strategic benefit" more directly defines the correct strategic aim. They mentioned that the intent was not to suggest that competition is unrelated. Even though it is important and critical, is not primary. So, the competition should be a secondary incentive; value co-creation through service provision should be primary. In this manner, FP4 was modified with more appropriate wording: "*Operant resources are the fundamental source of strategic benefit.*"

FP6 caused a lot of misunderstandings and debates from the beginning as it was defined as "co-production". Later the term co-production was substituted by co-creation but there was still confusion in the interpretation of the premise. The initial definition was to advocate the idea that *the beneficiary always participates in the process of its own value creation.* To clarify FP6, the authors modified the premise, and somewhat strengthened it, as follows: "*Value is co-created by multiple actors, always including the beneficiary.*"

FP7 was also modified in order to be consistent with actor to actor (A2A) orientation. The term "enterprise" was substituted with "actor" and the new FP were identified as

follows: "*Actors cannot deliver value but can participate in the creation and offering of value propositions.*"

FP8 was updated because of the reasons associated with FP7, the reflection of the A2A orientation was needed. The word "beneficiary" was preferred in order not to imply something of G-D logic while using "consumer" and "customer" as they can be linked to a firm-centered orientation. Thus, FP8 becomes: "*A service-centered view is inherently beneficiary oriented and relational."*
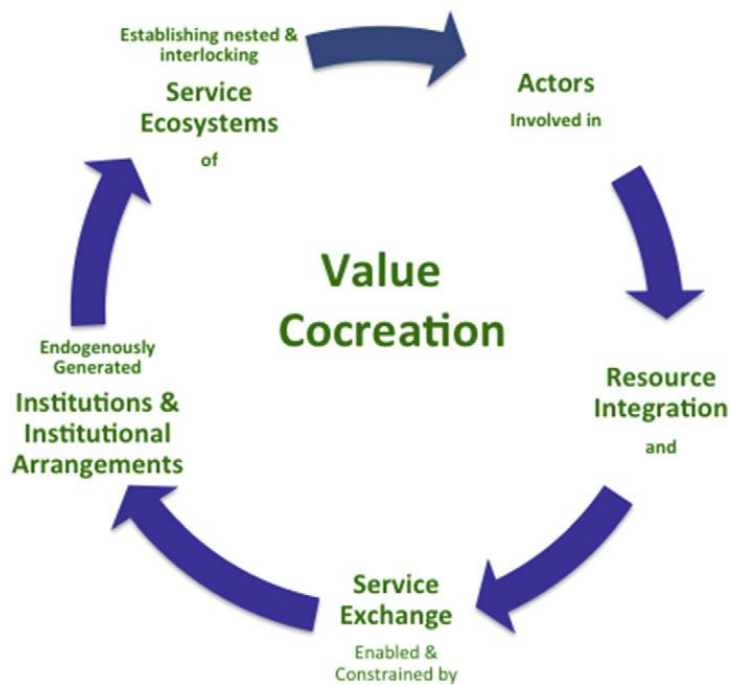


**Figure 4**: *The narrative and process of S-D logic*

S-D logic has introduced the concept of a service ecosystem (Lusch and Vargo, 2014, 2011). The actors are specialized while in the process of exchange in order to be able to provide applied resources for each other and the systemic dependencies and interdependencies among them emerge the need for complex exchange systems (Chandler and Vargo, 2011, Vargo and Lusch, 2011). Thus, S-D logic uses the term "ecosystems" to define the aforementioned systems. Vargo and Lusch (2016) used the term "service ecosystem" to define the distinct kind of critical flow-mutual service provision. This term is identified in S-D logic as "relatively self-contained, self-adjusting systems of resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange." (Lusch and Vargo 2014; Vargo and Lusch 2016).

A new premise was added to the FPs as FP11: "*Value co-creation is coordinated through actor-generated institutions and institutional arrangements.*" The newest premise highlights the role of institutions and their institutionalization process in value co-creation. Institutions are defined as rules, norms, and beliefs that are forged by humans and should not be referred to as an organization. These rules enable and inhibit action and make social life predictable and meaningful (Scott 2001; North 1990). Institutions and institutional arrangements facilitate actors to provide an ever-increasing level of service exchange and value co-creation in service ecosystems (Vargo and Lusch, 2016).

With the new updates, additions, and freshly identified axioms, the latest FPs are summarized in the following table.

| Axiom 1/FP1 | Service is the fundamental basis of exchange |
|---|---|
| FP2 | Indirect exchange masks the fundamental basis of exchange |
| FP3 | Goods are a distribution mechanism for service provision |
| FP4 | Operant resources are the fundamental source of strategic benefit |
| FP5 | All economies are service economies |
| Axiom 2/FP6 | Value is co-created by multiple actors, always including the beneficiary |
| FP7 | Actors cannot deliver value but can participate in the creation and offering of value propositions |
| FP8 | A service-centered view is inherently customer oriented and relational |
| Axiom 3/FP9 | All social and economic actors are resource integrators |
| Axiom 4/FP10 | Value is always uniquely and phenomenologically determined by the beneficiary |
| Axiom 5/FP11 | Value co-creation is coordinated through actor-generated institutions and institutional arrangements |

**Table 3***: S-D logic foundational premises updated by Vargo and Lusch (2016)*

In summary, S-D logic is an idea that all exchanges can be envisioned in terms of service-for-service and the mutual application of resources to benefit others. The concept is an elusive concept with its continuous evolution. Vargo and Lusch claim that they do not "own" S-D logic but rather they see this new logic as an open-source evolution process. Even though it is concerned with service marketing, S-D logic is not only about a single sub-discipline of marketing, instead, it offers a brand new perspective to all disciplines of marketing such as meta-level, midrange, and micro-

level theory (Brodie, Saren, & Pels, 2011). Many scholars continuously contribute to the concept with their supportive comments, criticism, comments of scepticism. The concept keeps evolving to a broader and more advanced theory thanks to the numerous actors

Roles, terms, definitions differ in S-D logic. Here is a table that summarizes the differences between S-D logic and G-D logic.

| Attribute | G-D logic | S-D logic |
|---|---|---|
| Value driver | Value-in-exchange | Value-in-context |
| Creator of value | Firm, often with input from firms in a supply chain | Firms, network partners and customers |
| Process of value creation | Firms embed value in "goods" or "services", value is "added" by enhancing or increasing attributes | Firms propose value through market offerings, customers continue value-creation process through use |
| Purpose of value | Increase wealth for the firm | Increase adaptability, survivability, and system wellbeing through service (applied knowledge and skills) of others |
| Measurement of value | The amount of nominal value, price received in exchange | The adaptability and survivability of the beneficiary system |
| Resources used | Primarily operand resources | Primarily operant resources, sometimes transferred by embedding them in operand resources-goods |
| Role of firm | Produce and distribute value | Propose and co-create value, provide service |
| Role of goods | Units of output, operand resources that are embedded with value | Vehicle for operant resources, enable access to benefits of firm competences |
| Role of customers | To 'use up' or 'destroy value' created by firm | Co-create value through the integration of firm-provided resources with other private and public resources |

*Table 4: The differences between S-D logic and G-D logic*

Here the terms used in these evaluating concepts with their transitions can be summarized in the table below.

| G-D logic concepts | Transitional Concepts | S-D logic concepts |
|---|---|---|
| Goods | Services | Service |
| Product | Offerings | Experiences |
| Feature/Attribute | Benefit | Solution |
| Value-added | Co-production | Co-creation of value |
| Value-in-exchange | Value-in-use | Value-in-context |
| Profit maximization | Financial Engineering | Financial feedback/learning |
| Price | Value delivery | Value proposition |
| Equilibrium systems | Dynamic systems | Complex adaptive systems |

**Table 5**: *Underlying conceptual transitions to a S-D logic by Vargo and Lusch (2006)*

## 1.1.2. Experience Economy

Considerations on customer experience have become much more extensive in the recent literature. Various scholars have studied to provide a better understanding of customer experience, constructing frameworks and processes in order to be able to manage the processes. If this so-called customer experience governed properly, it can provide extensive benefits to the service providers as it directly influences customer satisfaction, loyalty, expectations; injects confidence, supports the brand and also creates relational bonds with customers, or it can lead to emotional scarring (Liljander and Strandvik 1997, Yu and Dean 2001, Pullman and Gross 2004, Mascarenhas et al. 2006, Flanagan et al. 2005, Grace and O'Cass 2004, Berry and Carbone 2007, Pullman and Gross 2004).

Pine and Gilmore (1998) indicates that experiences are a certain economic offering. An experience is not a vague construct; it is real just like any other service or good. Nowadays, various companies simply add experiences around their traditional offerings to sell them better. The new progression of economic value, in this concept, has emerged as it is illustrated in Figure 5 below.
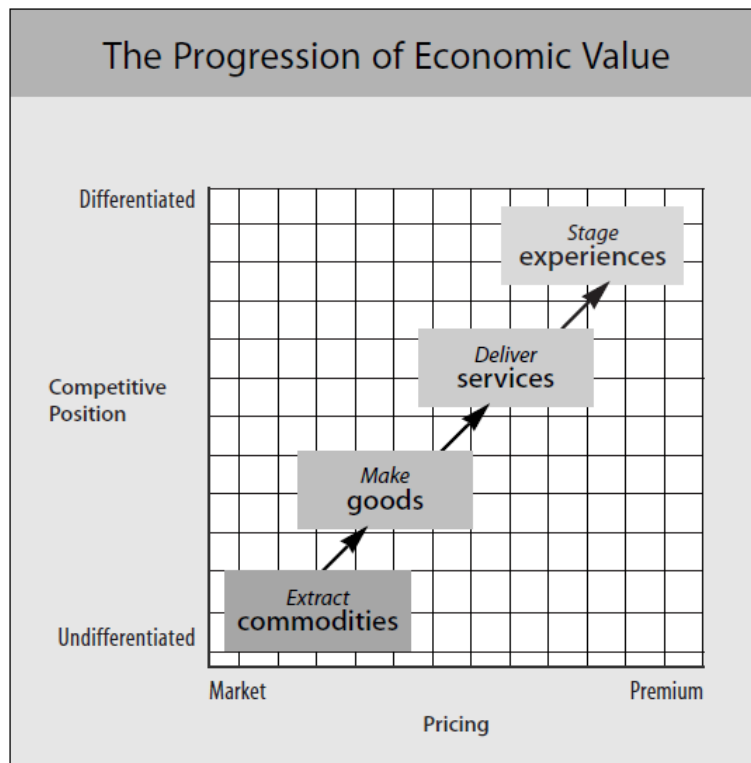
**Figure 5**: *The progression of economic value by Pine and Gilmore (1986)*

-An experience emerges when a service provider deliberately provides services as stage and goods as props, to engage individuals in a way that creates a memorable experience. In order to distinguish the definitions of different terms from commodities to experiences, the authors propose a chart which can be seen in Figure 6 below.



| Economic Offering | Commodities | Goods | Services | Experiences |
|---|---|---|---|---|
| Economy | Agrarian | Industrial | Service | Experience |
| Economic Function | Extract | Make | Deliver | Stage |
| Nature of Offering | Fungible | Tangible | Intangible | Memorable |
| Key Attribute | Natural | Standardized | Customized | Personal |
| Method of Supply | Stored in bulk | Inventoried after production | Delivered on demand | Revealed over a duration |
| Seller | Trader | Manufacturer | Provider | Stager |
| Buyer | Market | User | Client | Guest |
| Factors of Demand | Characteristics | Features | Benefits | Sensations |

**Figure 6**: *Economic distinctions by Pine and Gilmore (1986)*

As it can be seen from the figure, commodities are fungible, goods are tangible, services are intangible, and the experiences are memorable. The offerings from service providers such as commodities, goods, and services are external to the buyer while experiences are constitutionally personal and these experiences exist only in the customers' mind who have been engaged in an emotional, physical, intellectual, or even spiritual level. Consequently, the experiences are unique, and it is not the same for two people because every single experience emerges through the interaction between the staged event and the individual's mind.

There are two dimensions that describe the experiences. The first one refers to customer participation. There are two different participation types: passive and active participation depending on the individual's willingness and ability. These two types do not impact the performance of the service. They contribute differently to the service and the experience. The second dimension is connection which consolidates customers with the service. There are again two types of connection: absorption and immersion.

In order to categorize and provide better understanding of experience, the authors propose a new schema where there are four extensive categories.
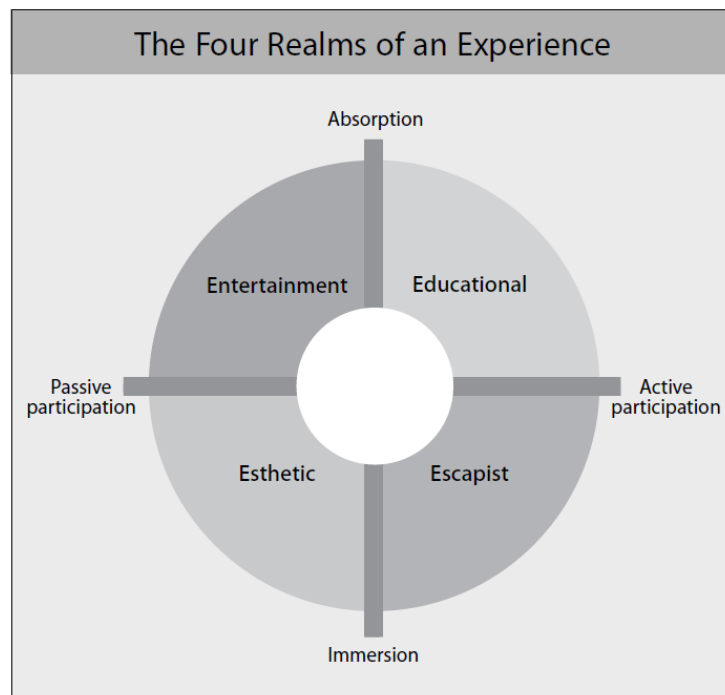


**Figure 7**: *The four realms of an experience by Pine and Gilmore (1986)*

Entertainment mostly refers to the activities such as watching a concert where generally the customers participate more passively. Educational events refer to the activities like attending a class or taking a private lesson where the individuals are more active in participation but still, they are not entirely inside of the action. Escapist experiences can also teach like education experiences or amuse just like entertainment activities, but the involvement of the customer is higher than the others. For example, playing guitar in a band requires active involvement of the individuals. If you decrease the involvement and participation of the customer, the escapist can transform into the aesthetic. In this category, they are active on the action, but they have no effect on it like a tourist visiting the Colosseum in Rome.

In summary, Pine and Gilmour provide a broad perspective to the experience economy and they suggest five key experience-design principles: theme the experience, harmonize impressions with positive cues, eliminate negative cues, mix in memorabilia, engage all five senses.

## 1.1.3. Value Co-creation

Value is an ambiguous concept (Woodall, 2003) and it is identified as the "capacity of goods, services or activity to satisfy a need or provide a benefit to a person or legal entity" (Haksever, Chaganti & Cook, 2004). Agrawal and Rahman (2015) summarized the previous studies on different aspects of value such as added value, value chain, superior value, perceived value, relationship value, stakeholder value, and value-in-use (Payne and Holt 2001; Woodruff 1997; Sânchez-Fernândez and Iniesta-Bonillo, 2007). The process of value creation is still not completely identified and is an elusive process that is recognized in an individualistic way (Grönroos, 2011). Grönroos (2008) described this concept as a process in which the actors involved somewhat become better off. According to this description, after a customer receives a service, he or she feels better than before but there are still arguments over how to determine the differences between co-creation and co-production (Grönroos and Voima, 2013; Cova et al, 2013).

| Authors | Value co-creation definitions |
| --- | --- |
| Grönroos & Voima (2013) | "… refers to customers' creation of value-in-use where co-creation is a function of interaction." |
| Roser et al. (2013) | "… an interactive, creative and social process between stakeholders that is initiated by the firm at different stages of the value creation process. |
| Ind & Coates (2013) | "… as a process that provides an opportunity for on-going interaction, where the organization is willing to share its world with external stakeholders and can generate in return the insight that can be derived from their engagement." |
| Lambert & Enz (2013) | "… as a three-phase cycle comprised of (1) joint crafting of value propositions, (2) value actualizations, (3) value determination." |
| Grönroos (2012) | "… is a joint collaborative activity by parties involved in direct interactions, aiming to contribute to the value that emerges for one or both parties." |
| Edvardsson et al. (2011) | "… is shaped by social forces, is reproduced in social structures, and can be asymmetric for the actors involved." |
| Gummeson & Mele (2010) | "… is enabled by Actor2Actor involvement and commitment. It is a time-based process which simultaneously comprises parallel and sequential phases." |
| Xie et al. (2008) | "… presumption as value creation activities undertaken by the consumer that result in the production of products they eventually consume and that become their consumption experiences." |
| Zwick et al. (2008) | "… as a set of organizational strategies and discursive procedures aimed at reconfiguring social relations of production, works through the freedom of the consumer subject with the objective of encouraging and capturing the know-how of this creative common." |
| Payne et al. (2008) | "… process involves the supplier creating superior value propositions, with customers determining value when a good or service is consumed." |
| Wikstrom (1996) | "… is company-consumer interaction (social exchange) and adaptation, for the purpose of attaining added value." |

**Table 6**: *Various definitions of value co-creation*

The term "value co-creation" was addressed by Kambil, Ginsberg, and Bloch (1996) but it became much more popular and widely known with the conceptualization of value co-creation studied by Prahalad and Ramaswamy (2000, 2004). The table below consists of different definitions of value co-creation made by numerous authors.

Vargo and Lusch (2004) focus on the value-creating processes in the S-D logic concept. In contrast with the G-D logic viewpoint, S-D logic advocates that significant meanings are created by the experiences a customer has over an amount of time. G-D logic focuses on the products for potential opportunities for the firm.

Even though there are previous studies on customer value (e.g., Holbrook 1996; Woodruff 1997), and more recently other studies that consider customer value in S-D logic (e.g., Berthon and John 2006; Holbrook 2006), still very little is known on how a customer engages in these processes (Woodruff and Flint 2006).

1.1.3.1. Conceptual framework for value co-creation

Payne et al (2008) proposed a new framework to understand and improve the value co-creation processes that include three main components. Customer value-creation processes which are defined as the processes, resources, and practices that customers (in a business-to-consumer relationship) or customer organizations (in a business-to-business relationship) use to handle their actions, activities, and relationships with other actors. Supplier value-creating processes are the activities that the supplier realizes to maintain its business and relationships with other actors. Encounter processes are the processes and practices that need to be guided in order to evolve to more successful co-creation moments. These processes and practices take place during the interaction and exchange between customer and supplier relationships. The new framework proposed by Payne includes these three main processes which form the structure presented in Figure 8.
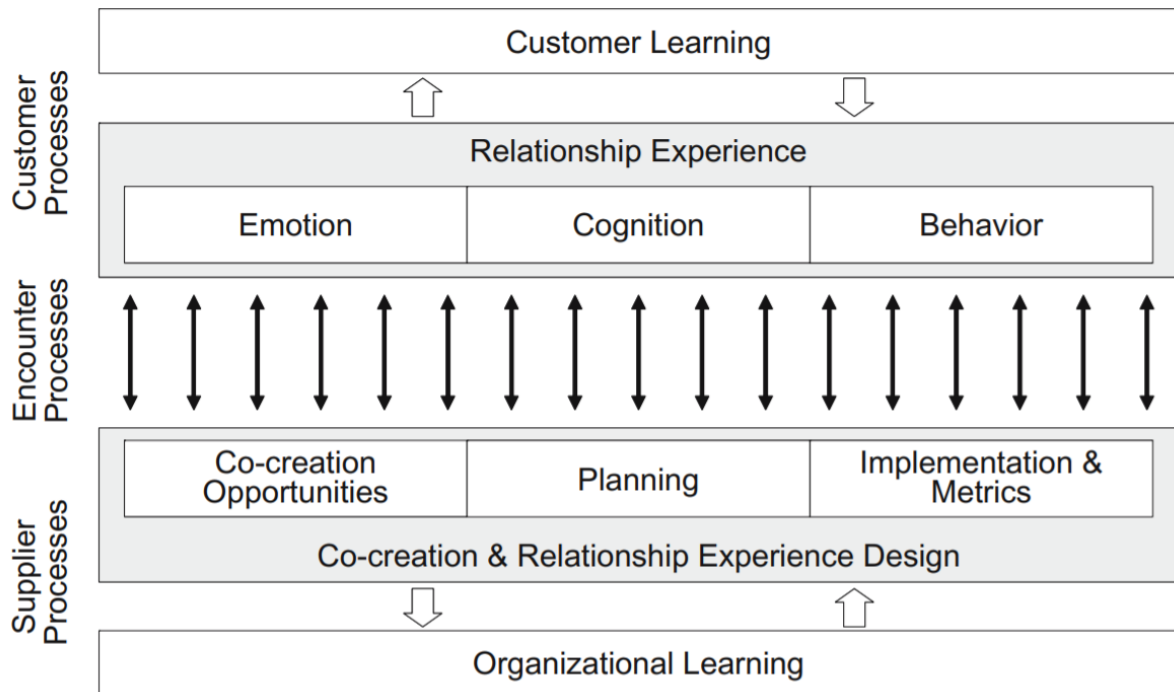
**Figure 8**: *A conceptual framework for value co-creation by Payne et al. (2008)*

The framework above emphasizes the connection between the different types of processes that occur between different actors and the repetitive nature of co-creation. It can be seen that all the processes are linked to each other and the arrows direct on both sides. This represents the recursiveness of the co-creation process. The arrows in the middle of the framework serve for the encounters between the supplier and the customer. The arrows point in two directions showing the interactive nature of encounters. Other arrows, such as the ones between customer learning and customer processes, represent the learning phase of the customers that depend on the experiences they have during the interaction. This learning process will be affecting how the customers interact and engage in forthcoming value co-creation activities with the supplier. Lastly, the arrows between the organizational learning and supplier processes mean that the suppliers, just like customers, learn more about the other actors and this learning phase provides more opportunities to the suppliers so that they can enhance and improve their relationship and improve co-creation with the customers.

The customer's value creation process is a process that consists of different sets of activities to achieve a goal and these activities are performed by the customer. The operant resources such as information, knowledge, skills are the key resources of the customer's ability to create value (Normann 2001). Hence, during the interaction and engagement processes, suppliers should influence and improve the customer's pool of resources so that they can utilize these available resources more efficiently. Additionally, in order to improve the co-creation process, suppliers should focus more on the relationships with their customers in relation to the total offering and "value-in-use" rather than the products and its features. This process is a dynamic, interactive, non-linear, and unconscious process.

### 1.1.3.1.1.1. The relationship experience

The relationship experience should be considered not only from the perspective of the information-processing approach but also from the experiential approach. The information-processing approach suggests that customers involve in the judgment process on the basis of their past, present or imagined experiences and on the basis of whether these experiences are valuable for them (Oliver 1999). On the other hand, with the help of the experiential view of consumption, the consumer behavior concept has advanced even more (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982). Experiential consumption and consumer culture theory (Arnould and Thompson 2005) focus more on the emotions, symbolic, and non-utilitarian aspects of consumption. According to this approach, value is not related to the object of consumption, but it resides in the experience during the consumption process. This consumption process includes the flow of fantasies, feelings, and fun (Holbrook and Hirschmann 1982) and can be analyzed from contextual and symbolic aspects (Addis and Holbrook 2001). There are three main components of relationship experience: cognition, emotion, and behavior. Cognition, based on Holbrook and Hirschman (1982), should be explained from both aforementioned viewpoints. The cognition part focuses on memory-based activities and in addition to the processes that are more subconscious. Emotions serve for attitudes and preferences. Emotions are used as

an umbrella term to emphasize feelings, moods, and personality characteristics (Beckman 1989). The last one is behavior which is based on the actions that emerge and conclude in experiences. Therefore, behavior analysis should be extended to the point where we include experiences that the customer has while using a product or service rather than only focusing on the choice processes that result in a purchase. The Figure 9 summarizes the relationship experience concept.
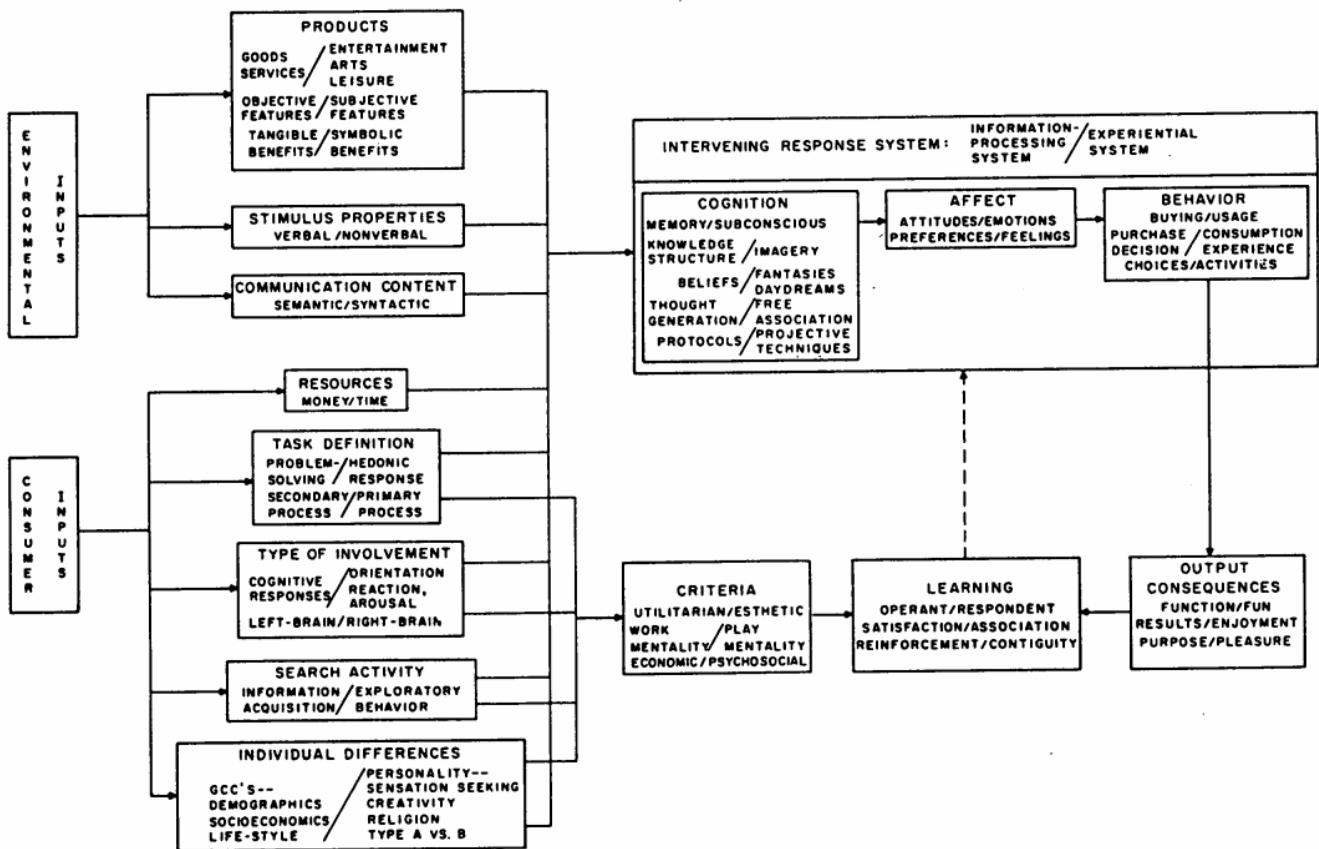


**Figure 9**: *Contrasts between the information-processing and experiential views of consumer behavior by Holbrook and Hirschman (1982)*

This perspective enhances the different aspects of consumer behavior which were vital but previously neglected issues concerning "the role of aesthetic products, multisensory aspects of product enjoyment, the syntactic dimensions of communication, time budgeting in the pursuit of pleasure, product-related fantasies and imagery, feelings arising from consumption, and the role of play in providing enjoyment and fun" (Holbrook and Hirschman, 1982).

As mentioned before, the supplier should provide experiential interactions and encounters for customers so that they can utilize their resources with the contribution

of these encounters. The elements of the relationship experience processes are autonomous and involve the customer in thinking, feeling, and doing as an essential part of their role in value co-creation. In order to keep the relationship ongoing, suppliers should increase and maintain the customer's satisfaction and the degree of their involvement. By concentrating on these important elements in a broader experiential sense, the supplier can enhance the marketing communications by shifting the focus more to communication and exchange with customers to improve their experiences and learning processes.

### 1.1.3.1.1.2. Customer Learning

The customer learning process has different levels of complexity. The levels are distinguished as remembering, internalization, and proportioning. The first level is remembering which is about the attention of the customer rather than emotions. The second level is internalization. During this process, the customer tries to understand and interpret the message. Then, most of the time, they take a sort of stand according to their experience based on the message. This level is important since companies try to build homogenous and catchy customer relations with a brand identity. The last level is the most complex one which is called proportioning. It is a form of "double-loop learning" (Argyris and Schön 1978). Customers take a step backward to think and process how they engage during the previous interaction. This process affects their forthcoming interaction with the supplier. They may change their behavior and use resources in new ways after their reflection on the process.

### 1.1.3.1.2. Supplier value-creating processes

From the other perspective, suppliers should focus to understand the customer's value-creating processes in order to create value for both sides. In supplier value-creating processes, we can see co-creation and relationship experience design and organizational learning phases that assist co-creation. The co-creation and relationship experience design section consists of three different elements: co-creation opportunities, planning, and implementation & metrics. According to these three elements, a supplier can design its processes based on its customer's path to improve

their experience with the company. This knowledge management and recursive organizational learning process are the fundamental sources of competitive advantage in the customer-oriented perspective.

*1.1.3.1.2.1. Co-creation opportunities*

Co-creation opportunities are different types of options based on the industry in which the supplier operates and based on their offerings and customer base. There are three important types of value co-creation opportunity. The first one is opportunities provided by technological breakthroughs. These breakthroughs emerge through new innovative, technological solutions and developments such as iPod. iPod was an innovation that changed how customers' behavior in buying, storing, and enjoying music. Secondly, there are opportunities provided by changes in industry logic. The most significant example of this category is electronic advancements that make activities more liquid and movable in time and space. An example from traditional industries can be IKEA which has changed the logic in the furniture business. IKEA designs, manufactures, and delivers the products while the customer does most of the assembly. Lastly, there are opportunities provided by the changes in customer preferences and lifestyles. The world and general trends are changing constantly depending upon the customer's learning and knowledge. Suppliers should be continually looking for opportunities based on these types of switches in the behavior of the customer.

*1.1.3.1.2.2. Planning, implementation, and metrics*

In conventional strategy models, the view is generally inside-out since the focus is mostly on organizational competencies. In contrast, the S-D logic is outside-in since it suggests that businesses should start their strategy by understanding the customer's value-creating processes and support these processes to improve the value creation. In order to follow the S-D logic and improve the co-creation of value, businesses should change their traditional marketing logic from "making, selling and servicing" to "listening, customizing and co-creating." Regarding how a company should implement co-creation strategy, the concept of prototyping is a significant tool to apply the

aforementioned strategy. By prototyping, co-creation options can be tested in the form of encounters, content, and the environment. Another important point is the development of convenient metrics. Even though there is an incremental increase in the interest of customer-centric businesses, the metrics used to measure and monitor the performance of their relationships with the customers are not very well defined and developed (Payne and Frow 2005). Better ways of measurement should be developed. More research is needed to describe key measures of co-creation and how these metrics can be used to monitor and improve performances.

### 1.1.3.1.2.3. Organizational Learning

According to S-D logic, knowledge is one of the key operant resources. Mokyr (2002) described knowledge in two parts: propositional and prescriptive knowledge. Prescriptive knowledge is also known as techniques. "These techniques are the skills and competences that entities use to gain a competitive advantage" (Vargo and Lusch 2004). Organizations should be able to integrate a deep interpretation and understanding of customer experiences rather than relying on hard data such as satisfaction measures. Understanding how a customer engages in value co-creation processes and identifying the knowledge required to provide this engagement is way more important than information technology capabilities and these organizations which are able to implement this strategy can prevent unnecessary investments.

### 1.1.3.1.3. The encounter process

The encounter process is represented in the middle of the framework and positioned between the customer and the supplier. Two-way arrows highlight the recursive and interactive nature of the process. Encounters mean touchpoints, contacts or interactions that can occur either because of the efforts given by the company or on the initiative of the customer; or on the initiative of both. Encounter process includes different departments such as marketing, sales, logistics, etc. There are three forms of encounters: communication encounters, usage encounters, and service encounters. Communication encounters refer to the activities carried out in order to reach customers. (e.g., advertisements, brochures). Usage encounters regard to the

ones while using a product or a service. Service encounters mean the interaction of the customers with service applications.

Encounters can be categorized as:

*Emotion-supporting encounters* which are themes, metaphors, stories, analogies, recognition, surprise, design. *Cognition-supporting encounters* which relate to value-describing messages, references, scripts, functionality. Lastly, *behavior/action-supporting encounters* regard to trial, know-how communication, and usage. These encounter processes support the companies in the sense that they can provide better opportunities for value co-creation.

There are various techniques to showcase opportunities, classify failure points, and improve the overall service processes. They include process mapping, customer activity cycles, service-blueprinting, activity mapping, and customer-firm touchpoint analysis (e.g., Shostack 1984; Kingman-Brundage 1989; Grönroos 2003; Sawhney et al. 2004). Payne et al. propose a new concept for integrative mapping of the customer, supplier, and encounter processes. For a travel company, the authors design an encounter mapping to understand the key touchpoints and insights in order to improve the service offered. Different sections represent different encounter process categorizations. 'Goals in life' and 'travel plans' in Figure 10 represents communication encounters and service encounters. Other activities such as 'decision making' and 'preparations' indicate the importance of usage encounters. As the study shows, suppliers should take different types of encounters into account while designing the touchpoints since customers have different types of goals based on different encounters and they need to implement the cross-functional alignment in order to improve the design of these encounters. The customer experience which is derived during the processes depends on the promises provided to the customers in the first section. These promises should be relevant in the later sections of the process. With the help of this framework, suppliers can support customers to understand the available resources and opportunities.
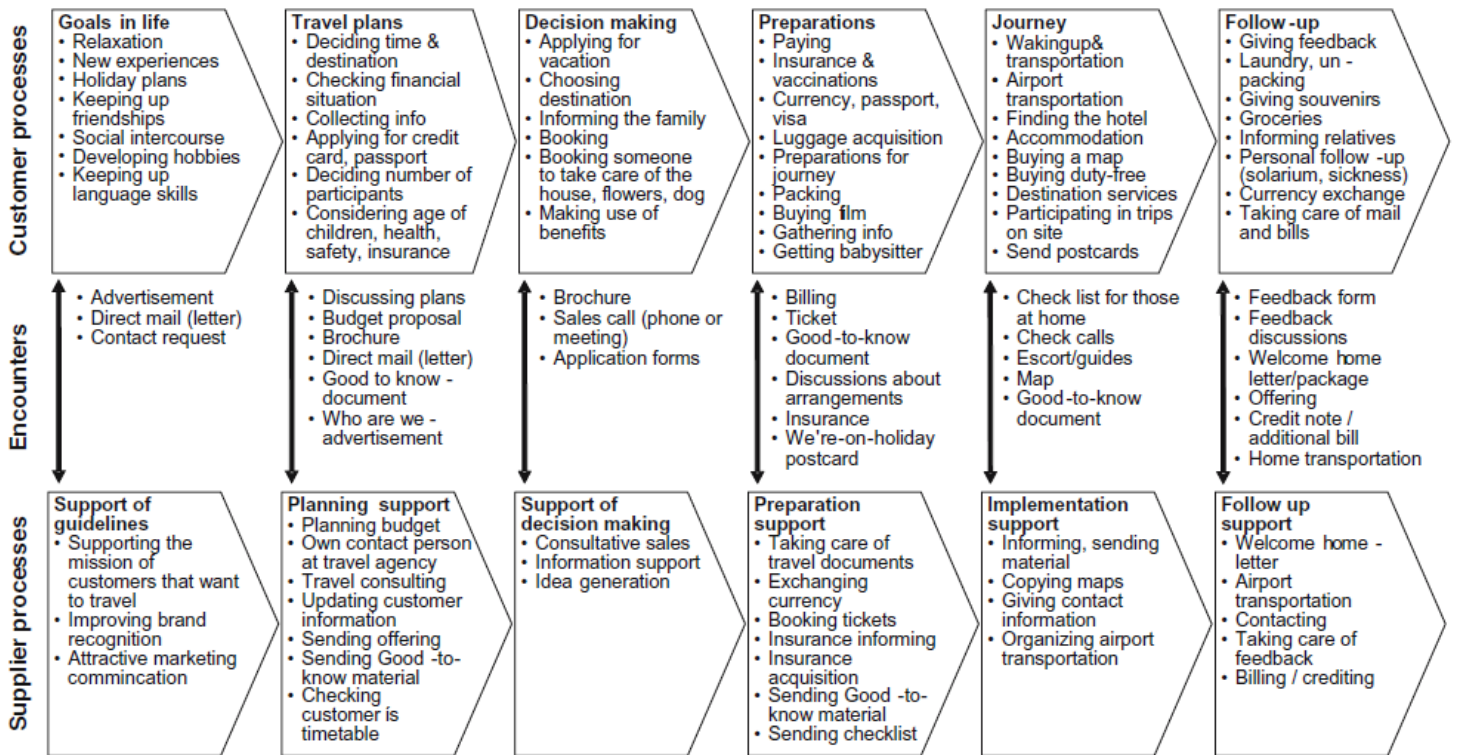
**Customer processes**

**Goals in life**
- Relaxation
- New experiences
- Holiday plans
- Keeping up friendships
- Social intercourse
- Developing hobbies
- Keeping up language skills

**Travel plans**
- Deciding time & destination
- Checking financial situation
- Collecting info
- Applying for credit card, passport
- Deciding number of participants
- Considering age of children, health, safety, insurance

**Decision making**
- Applying for vacation
- Choosing destination
- Informing the family
- Booking
- Booking someone to take care of the house, flowers, dog
- Making use of benefits

**Preparations**
- Paying
- Insurance & vaccinations
- Currency, passport, visa
- Luggage acquisition
- Preparations for journey
- Packing
- Buying film
- Gathering info
- Getting babysitter

**Journey**
- Wakingup& transportation
- Airport transportation
- Finding the hotel
- Accommodation
- Buying a map
- Buying duty-free
- Destination services
- Participating in trips on site
- Send postcards

**Follow-up**
- Giving feedback
- Laundry, un-packing
- Giving souvenirs
- Groceries
- Informing relatives
- Personal follow-up (solarium, sickness)
- Currency exchange
- Taking care of mail and bills

**Encounters**

- Advertisement
- Direct mail (letter)
- Contact request

- Discussing plans
- Budget proposal
- Brochure
- Direct mail (letter)
- Good to know - document
- Who are we - advertisement

- Brochure
- Sales call (phone or meeting)
- Application forms

- Billing
- Ticket
- Good-to-know document
- Discussions about arrangements
- Insurance
- We're-on-holiday postcard

- Check list for those at home
- Check calls
- Escort/guides
- Map
- Good-to-know document

- Feedback form
- Feedback discussions
- Welcome home letter/package
- Offering
- Credit note / additional bill
- Home transportation

**Supplier processes**

**Support of guidelines**
- Supporting the mission of customers that want to travel
- Improving brand recognition
- Attractive marketing commincation

**Planning support**
- Planning budget
- Own contact person at travel agency
- Travel consulting
- Updating customer information
- Sending offering
- Sending Good-to-know material
- Checking customer is timetable

**Support of decision making**
- Consultative sales
- Information support
- Idea generation

**Preparation support**
- Taking care of travel documents
- Exchanging currency
- Booking tickets
- Insurance informing
- Insurance acquisition
- Sending Good-to-know material
- Sending checklist

**Implementation support**
- Informing, sending material
- Copying maps
- Giving contact information
- Organizing airport transportation

**Follow up support**
- Welcome home - letter
- Airport transportation
- Contacting
- Taking care of feedback
- Billing / crediting

**Figure 10**: *Mapping of customer, supplier, and encounter processes by Payne et al. (2008)*

In summary, this framework provides a significant tool to understand how a customer engages in value creation and provides a set of directions to manage and improve the value co-creation processes. It is constructed based on the S-D logic concept and illustrates the importance of the different actors and interaction during the value creation. The framework accepts customers as a co-creator of value; suggests that marketing function is the provider of relationships; knowledge as a key operant resource and fundamental source competitive advantage.

This study features the roles of different actors such as customers and suppliers and how they create value. The framework also supports managers so that they can improve their design and structure relationships. It can also help in designing offerings in "value-in-use" situations. The proposed model can also be used in traditional consumer goods industries in order to boost the co-creation of value.

Various authors have been trying to identify the definition of value co-creation and the roles of different actors during the process. As mentioned before, there are different definitions of value creation and even though literature agrees on the increasing interest and importance of the S-D logic and value co-creation in different aspects of businesses, there are numerous studies and debates to describe how and who co-creates. Grönroos is one of the important authors that contributes to the studies that try to resolve the process. Grönroos (2008) defines the value as " Value for customers means that after they have been assisted by a self-service process (cooking a meal or withdrawing cash from an ATM) or a full-service process (eating out at a restaurant or withdrawing cash over the counter in a bank) they are or feel better off than before." There is no doubt that the value is not only positive, but there may also be a negative value that emerges during the process. During recent years, there are increasing studies that use the term co-creators of value and in these studies, customers are accepted as the co-creators of value. This new aspect follows the notion of value-in-use rather than value-in-exchange. Grönroos argues that "if customers are value co-creators, what is the role of the firm?"

### 1.1.3.2.1. Value Facilitation Model

The value facilitation model is based on G-D logic. Since firms support customers by providing resources for them, they can be seen as the creators of a value foundation. Then, customers use these provided resources (goods or services) and add other operand and operant resources such as goods, services, knowledge, and skills held by them, the potential of the value embedded in these resources are transformed into value-in-use. So, the customers also provide a value foundation as well. Having these resources are vital for customers to make use of the offerings provided by a supplier, otherwise, value-in-use will not be there or lower. The role of the firm in the value-creating process varies depending on whether they adopt a service logic or not. So, the supplier's role is to take part in the process as value facilitators.  According to the value facilitation model, the firm's role is unilateral. The supplier in this model establishes a value proposition and if the customer accepts this proposition as their

value foundation during consumption, they add operant resources needed into the process in order to conclude in value fulfillment in the sense of value-in-use. Thus, the firm does not interact actively and directly in customers' processes during consumption where value fulfillment emerges. The value facilitation model is summarized in Table 7.

### 1.1.3.2.2. Value Fulfillment Model

Customers are, most of the time, interested not only in goods and services but also in how these can be used in the value creation process. Thus, firms should not only focus on goods or services in their offerings, but they should be understanding their customers' everyday practices and value-creating processes. They should always support customers' creation of value-in-use. This is the base logic for the service logic or service as a business perspective. The suppliers should seek business and marketing strategies according to the knowledge that cannot be reached by traditional market research. Customers create value unconsciously during their everyday practices. These everyday practices of customers should be the first step for the suppliers to adopt customer-centric logic.

| Supplier | Customer |
|---|---|
| *Creation of value-in-use according to a service logic* Value fulfillment model | |
| Role  Value facilitator by providing customers with a foundation for their value creation in the form of resources (goods, services, information or other resources) and | Value creator (1) during value-generating processes (consumption) where, if needed, other necessary resources available to customers and skills held by them are added and |
| Value co-creator during direct engagement in interactions with customers during their value-generating processes (consumption) | (2) through value-supporting interactions with suppliers as service providers during the value-generating processes, where value fulfillment takes place |
| *Creation of value-in-use according to a goods logic* Value facilitation model | |
| Role  Value facilitator by providing customers with a foundation for their value creation in the form of resources (goods, services, information or other resources) | Value creator during value-generating processes (consumption) where other necessary resources available to customers and skills held by them are added and where value fulfillment takes place |
| *Creation of value-in-exchange* Exchange value model | |
| Role  Creator of value-in-exchange by producing goods and services to be exchanged for money or its equivalent | Creator of value-in-use during the value-generating processes (consumption) where value fulfillment takes place and Where the level of the value-in-exchange for the firm is determined |

**Table 7**: *Value creation and value fulfillment according to a service logic and a goods logic respectively, as well as in a value-in-exchange context by Grönroos (2008)*

In the first model, there are no interfaces between a supplier and a customer. So, the firm's role was to facilitate the value only. Developing a business and marketing strategy based on a service logic and creating interactions with customers enlarged the role of the supplier in the value creation process. According to the service logic, a firm becomes much more than a simple value facilitator only. The firm can engage with customers and actively take a role in the customers' value-generating processes by directly influencing them. In this sense, the supplier also becomes a co-creator of value in addition to its customers. In Table 7, the exchange value model, value facilitation model based on the G-D logic and value fulfillment model enabled by the service-dominant logic is represented and the roles of the firm and the customer, respectively, are identified.

As it is already mentioned above in this paper, the new dominant logic which is called the S-D logic is an evolving concept. The definitions of the terms and foundational premises are being constantly updated with the help of a vast number of authors from different industries and from various disciplines.

Grönroos (2011), studies on the analysis of value creation in the context of the service logic for business and marketing and especially analyses the value co-creation aspect of value creation. Even though Grönroos and other authors have already studied to define the roles of the customer and the firm during the process, there is still very little known about the process, when the value creation process starts, what it includes, when it ends. As it was defined in the previous paper of the author, value creation is described as the customer's creation of value-in-use. Value-in-use means that the value creation emerges when a product or a service is used. In this sense, value creation is not an all-encompassing process (Grönroos, 2011). Other processes such as back-office (design, development, manufacturing) and front office (delivery) processes are not part of the value creation. These activities are most of the time called production and they may take part in the value creation process under specific cases. The whole process leads to value-in-use for both parts, but the production part is not part of value creation for the customer. In the S-D logic literature, the customers are included in the same analysis as the analysis focusing on the firm side. These two views cannot be included in the same study.
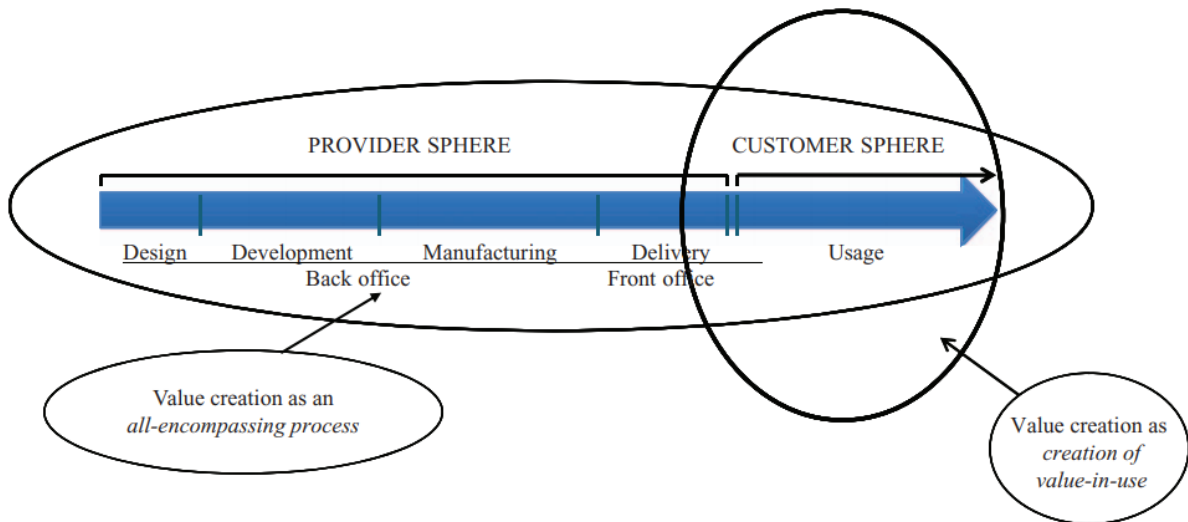
**Figure 11**: *Value creation as the customer's creation of value-in-use or as an all-encompassing process including provider and customer activities by Grönroos (2011)*

As it can be clearly seen from the Figure 11, the two perspectives contradict each other. Mixing the two points of view to value creation is not possible and does not make sense. Either the value is created in the customer's sphere or by both the actors in an all-encompassing value creation process. In summary, the processes in the beginning as we call "production" provide potential value and the usage provides the generation of real value (Gummesson, 2007; Vargo and Lusch, 2011).



**Figure 12**: *A value-in-use creation model by Grönroos (2011)*

In order to understand the difference between the production and the customer's value creation process, a distinction is illustrated in Figure 12 to sum up the value creation process from different perspectives such as value facilitation, value-in-exchange, and value fulfillment models.

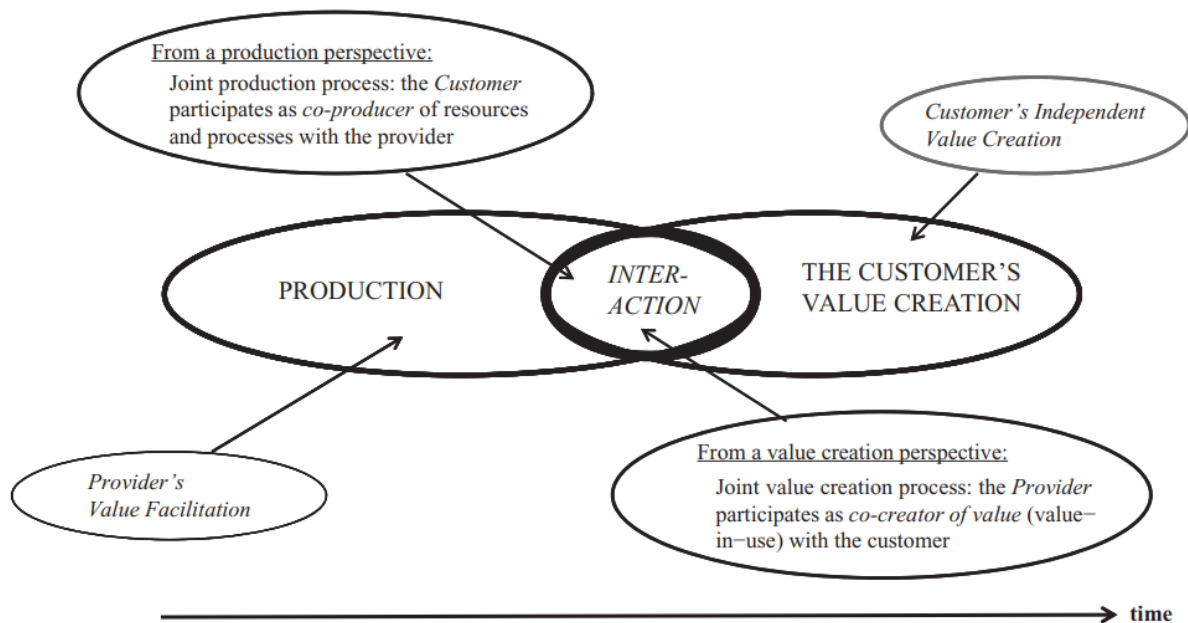Grönroos (2011) argues about the different definitions of the S-D logic and the updated foundational premises. With the help of the aforementioned models, definitions, and interaction concepts, the author revisits the foundational premises based on a more comprehensive approach. FP1 has been updated in order to feature the role of the service offered in the value creation process. FP3 was stating that the goods are used to distribute service provision for customers but it should be taken into consideration that all other resources accomplish the same purpose and the value is not only embedded in products or services but it emerges in the process of usage (consumption) through joint value creation between actors. According to the FP6, the customer is always a co-creator of value, but it lacks a complex viewpoint since it is a simple statement. It does not define the roles and the details of the process whether it is value creation or value co-creation. Thus, Grönroos suggests changing the term co-creation of value to value creator. Regarding the FP7, the original premise states that the firm cannot deliver value and only can make value propositions. Even though companies cannot deliver value directly, they can engage with their customers' value-creating process and under certain circumstances, they can co-create value jointly with the customers but this is not an option for the companies that have no interaction platforms. If there are no direct interactions, the firm can only facilitate customers' value creation. For the second sentence, the statement is reformulated because the firm also has an option to influence their audiences' value creation directly and actively, and still the customers are in charge of value creation. Original FP9 states that all actors involved in the process as resource integrators, but it is incomplete because of the reasons mentioned above. Additionally, new statements should be added to FP10 as well according to the author because the word "phenomenologically" can carry various meanings. Here we can see revisited the S-D logic's foundational premises in the Table 8 below.

| Premises relevant for value creation | Analytical conclusion | Premises revisited |
|---|---|---|
| No. 1 | Service is the fundamental basis of business ("Service is exchanged for service") | Service is only a mediating factor in the value-creating process, which ultimately aims at generating value for all parties in the process | *Reciprocal value creation is the fundamental basis of business, with service as a mediating factor* |
| No. 3 | Goods are a distribution mechanism for service provision | Goods and other resources as well transmit service. However, the value is not embedded in such resources, but emerges when they are used. | *All resources and processes are distribution mechanisms for service provision, however wirthout including value in themselves* |
| No. 6 | The customer is always a co-creator of value | This statement is correct only insofar that it says that together with another party (co-create) the customer is always involved in value creation. Beyond this simplistic conclusion, the statement does not enable theoretical and practical considerations and development. | *Fundamentally, the customer is always a value creator.* |
| No. 7a | The firm cannot deliver value | This statement is only partly correct because under certain circumstances (during direct interactions) the firm can become a co-creator of value. This opportunity *uniquely made possible by the service logic* goes unrecognized. However, the firm cannot produce value. | 1) *Fundamentally, the firm is a facilitator of value for the customer.*<br>2) *Provided that the firm can engage with its customers' value-creating processes during direct interactions, it has opportunities to co-create value jointly with them as well.* |
| No. 7b | The firm can only offer value propositions | Because the firm's and its customers' processes merge into one integrated and coordinated process during direct interactions, *uniquely due to the sevice logic* the firm can move beyond offering value propositions only. | *The firm is not restricted to offering value propositions only, but has an opportunity to directly and actively influence its customers' value creation as well.* |
| No. 9 | All social and economic actors are resource integrators | | *All social and economic actors are resource integrators* |
| No. 10 | Value is always uniquely and phenom-enologically determined by the beneficiary (e.g. in a business context the customer) | This is correct, but incomplete. Value is also experientially accumulating, dependant on the customers' global experiences. Value is not only determined but also experienced by the customer. | 1) *Value is accumulating throughout the customer's value-creating process.*<br>2) *Value is always uniquely and both experientially and contextually perceived and determined by the customer.* |

**Table 8***: Toward a service logic: value creation and co-creation revisited by Grönroos (2011)*

Grönroos and Voima (2013) further analyze the value creation and co-creation in services by individually describing the roles of both the customer and the firm in addition to the scope, locus, and nature of value and value creation. In the S-D logic literature, the service is expected to be experienced ultimately by the customer but in more recent marketing literature, the firm has the dominant position for value creation (Strandvik et al. 2012). Recent studies on service affirm that a more comprehensive understanding of value and value creation is still missing. Authors, in their new article, try to provide a systematic, analytical definition of the value by defining the scope, locus, and the nature of value and value creation process and they suggest that analyzing from the customer perspective might support the general understanding of the processes.

As Heinonen et al. (2010) mention, a different perspective on co-creation is required: Instead of diving deep into the reasons on how customers can be engaged in co-creation with the company, service providers should try to become more involved in the customers' lives. In order to do that, studies should focus on co-creation as a function of interaction. With this perspective, identification of the spheres in which

value is created, how, and by whom may become much easier. The conceptualizing of value creation is needed because of the complexity of the value concept. For example, a vacation may be valuable for someone, whereas, for someone else, value emerges through the idea of being together with friends, as enabled by the vacation. Another person may experience value while planning the trip; for yet another person, the experiences, memories, new friendships made during the vacation are the most valuable source (Heinonen et al. 2010; Voima et al. 2010).

Considering value creation as an all-encompassing process leaves some terms such as locus of value imprecise in the meaning. It cannot be accepted as value-in-exchange, because of the actions taken by the customer during usage. It cannot be accepted as value-in-use, because of the involvement of the service provider's activities, and because of the exact reason, the nature of value is uncertain.
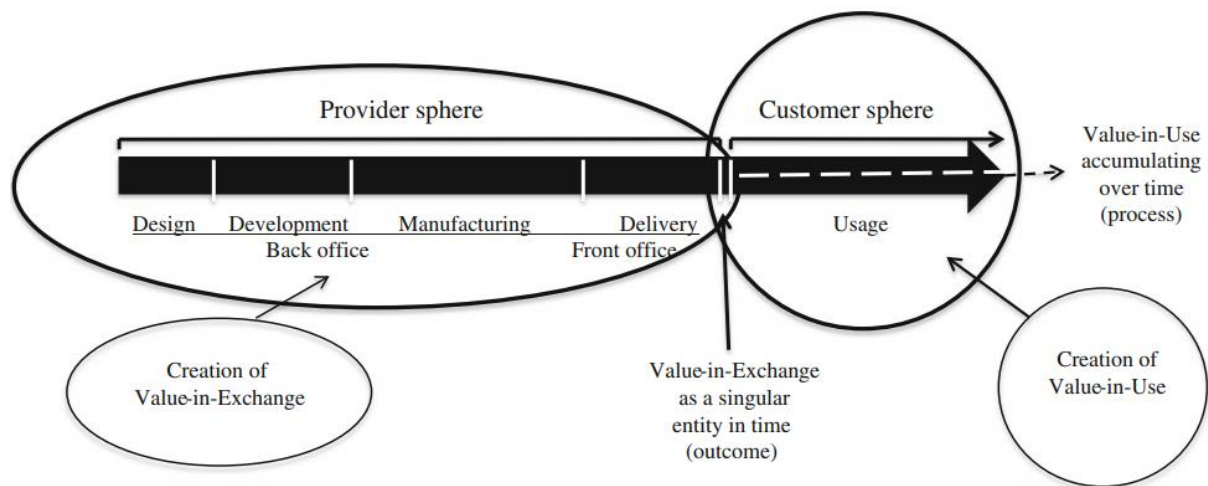


**Figure 13**: *A comparison of the nature and locus of the value-in-use and value-in-exchange concepts by Grönroos and Voima (2013)*

As illustrated above, in the value-in-exchange phase, the value is embedded in a resource that is an output of a labor process and as a utility, it can be changed for other utilities at a certain time. The nature of value-in-use regards to a customer that feels better off or worse off after the consumption process. Thus, it can be said that the value emerges over time through experiences and learning processes during usage (Grönroos 2008, 2011) but logically, the value cannot be defined before usage since it cannot exist before it emerges from the usage process.

**Producer:** The provider as producer of resources to be used in the customer's value creation

**Co-producer:** The customer participates as co-producer in the joint production process

**PROVIDER SPHERE**
• production (potential value)

**JOINT SPHERE**
• value creation in interaction (real value)

**CUSTOMER SPHERE**
• independent value creation (real value)

Customer's role

**Value creator/ co-creator:** The customer is the value creator in direct interaction, but when inviting the provider into this process (a merged dialogical process), value is co-created with the provider

**Value creator:** The customer is an independent value creator outside direct interaction
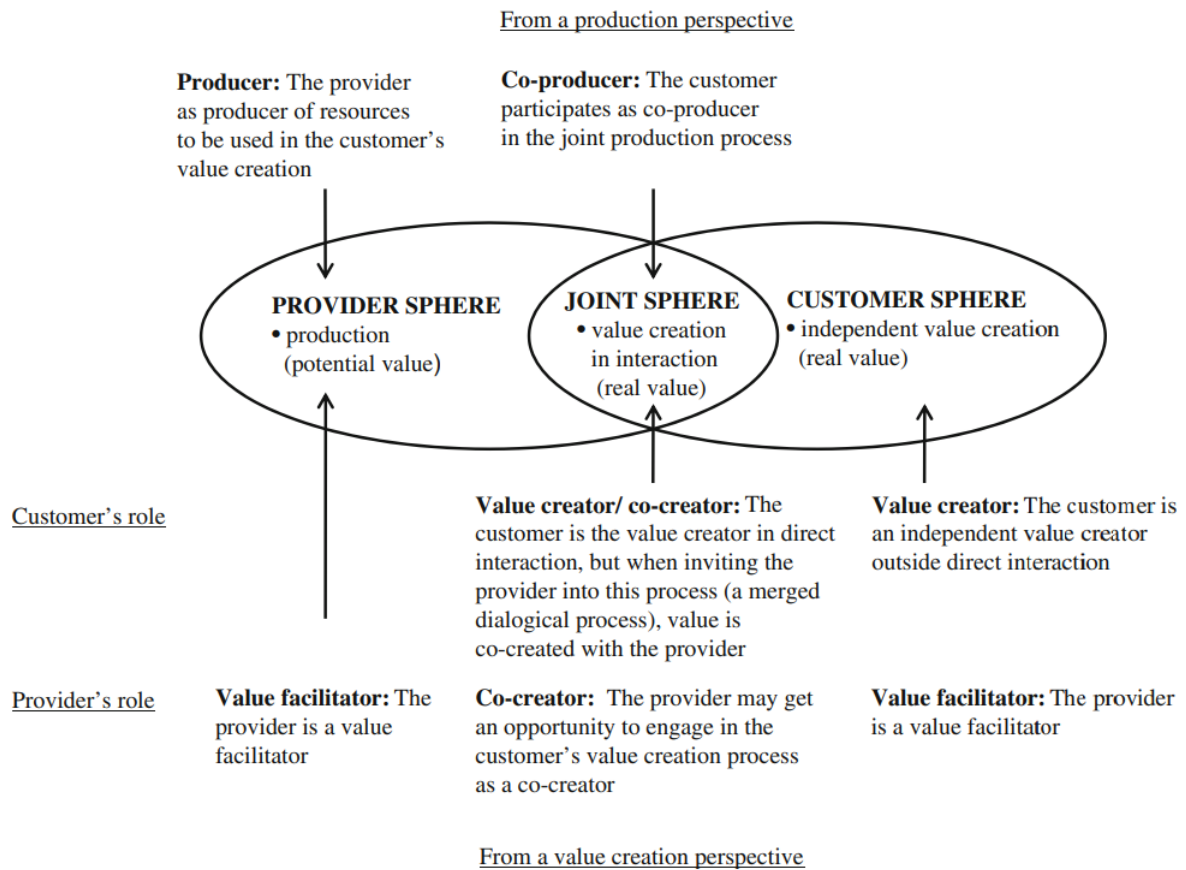
Provider's role

**Value facilitator:** The provider is a value facilitator

**Co-creator:** The provider may get an opportunity to engage in the customer's value creation process as a co-creator

**Value facilitator:** The provider is a value facilitator

From a value creation perspective

**Figure 14**: *Value creation spheres by Grönroos and Voima (2013)*

The illustration in Figure 14 distinguishes how the roles of the firm and customer vary based on the value creation sphere. The firm oversees the production processes (such as design, development, manufacturing, delivery, back office, and front office processes) and it provides resources and processes for customers in the provider sphere. In this sense, the firm facilitates value creation by generating potential value-in-use as a value facilitator. The intersection between two spheres is called a joint sphere in which the customer may be included in the production phase of resources and processes and become the value creator together with the firm. If there is a direct interaction with the customer, the firm may engage with the customer's value creation process and become a value co-creator. If there are no interactions, co-creation does not take place and the customer creates value as value-in-use independently of the firm in the customer sphere. Thus, the customer sphere is interpreted as the experiential sphere where value emerges through different resources and processes in social, physical, mental, temporal, and spatial contexts. As it is mentioned before, co-creation can take place only through direct interaction. However, this is not an

automatic way to involve in customer's value creation; rather they structure a platform for joint co-creation of value. By analyzing and understanding the customer's everyday practices and how the customers combine different resources in interactions, the firm can change into a co-creator of value from value facilitator. Therefore, interaction has a crucial role in marketing as Gummesson (1991) pointed out.

| | Provider sphere | Joint sphere | | Customer sphere | |
|---|---|---|---|---|---|
| | Provider | Provider | Customer | Customer (individually) | Customer (collectively) |
| **Value** | Potential value-in-use | Value-in-use | Value-in-use | Value-in-use | Value-in-use |
| | Indirect interaction | Direct interaction | | Indirect interaction | |
| **Value creation** | Value facilitation | Value co-creation | Value co-creation/ Value creation | Independent value creation | Independent social value co-creation |
| | The service provider facilitates (e.g., produces and delivers) the customer's value creation with resources/processes that are used and experienced in the customer sphere | The service provider's resources/processes/ outcomes interact with the customer's resources/processes in a merged dialogical process | The customer's resources/processes interact with the service provider's resources/processes/ outcomes in a merged dialogical process | The customer's resources/processes/ outcomes (visible and/or mental) interact with the service provider's resources/processes/ outcomes in an independent (individual and/or social) value creation process (indirect interaction) | Other actors/activities/ resources interact with the customer's resources/processes/ outcomes (visible and/ or mental) in a collective/social value creation process |
| **Example** | 1) The tour operator designs and sends a new brochure twice a year to the customer. 6) The tour operator confirms the order by mail and informs the customer of rescheduled flight times. | 5b) The tour operator's service system checks availability and lets the salesperson finalize booking of the trip for the family. | 5a) The customer phones the tour operator and books the trip for the family. | 2) The customer reads the travel brochure and dreams about a vacation for the summer (independent individual value creation). 8) The customer looks at pictures from the vacation and remembers how excellent the food in the hotel was (independent individual value creation). | 3) The customer discusses different destinations and hotels with the family over dinner (independent social value co-creation) 4) A colleague recommends a specific hotel and the customer reads some reviews of the hotel on different websites (independent social value co-creation). 7) The customer is delighted by positive comments about her suntan (independent social value co-creation). |

Line of visibility/provider control

Table 9: *Direct and indirect interactions: defining the roles of the customer and service provider by Grönroos and Voima (2013)*

The table above analyzes the roles of different spheres through different types of interactions in the value creation process in order to gain a more comprehensive understanding of the roles of the customer and the firm in value creation. Direct interaction is defined by the interaction of the customer's resources and the firm's resources through an active dialogical process. These interactions, most of the time, occur within the customer's use process but it also can occur in other processes in which the customer is involved in the firm's processes such as in design or product development. Indirect interactions regard conditions in which the customer uses the

firm's resources such as products. For example, when a customer buys a suit, value emerges because the customer feels well-dressed or the customer gets admired because of his or her appearance. Indirect interactions can also appear before the direct interactions, such as when a customer sees an ad or brochure about the suits of the firm.

As Helkkula et al. (2012) and Voima et al. (2010) mentioned, customer experience is a constantly evolving process and it makes the value creation process a transitory accumulative process in which the value emerges through the past, present, and future experiences.

In summary, the formulation and conceptualizing of co-creation and value creation was needed since the extant discussion of these terms does not reflect a precise definition of value creation or offer a clear perspective of value.

Authors revisit the foundational premises of S-D logic again with small suggestions to the definition to provide a better understanding of value creation. Even though the premises stay almost the same, the expression "potential value" has been added to FP7a.

| Revisited foundational premises | | Original premises |
|---|---|---|
| No. 6 | The customer is the value creator | The customer is always a co-creator of value |
| No. 7a | 1) Fundamentally, by providing potential value the firm is a facilitator of value for the customer<br>2) Provided that the firm can engage with its customer's value-creating processes during direct interactions, it has opportunities to co-create value jointly with them as well | The firm cannot deliver value |
| No. 7b | The firm is not restricted to making value propositions only, but has an opportunity to directly and actively influence its customers' value creation as well | The firm can offer only value propositions |
| No. 10 | 1) Value is accumulating throughout the customer's value-creating process<br>2) Value is always uniquely and both experientially and contextually perceived and determined by the customer | Value is always uniquely and phenomenologically determined by the beneficiary (e.g., customer) |

**Table 10**: *Revisiting the foundational service logic premises with a structured definition of value creation by Grönroos (2011, 2013)*

The considerations and studies to define value creation, co-creation, and debates to answer the typical questions such as how, when, for who, and by whom (is the value created?) highlight the complexity of the value creation concept. Further articles to conceptualize the co-creation of value are being studied in the literature. Grönroos (2012) developed a conceptual model to show how co-creation can be understood using the foundational, early service marketing research without diving into the most recent research. It is a model that includes various elements to understand, plan, and respond to customer-firm interactions from the perspective of both sides. This conceptual model is a synthesis of two different models of co-creation and firm-customer interactions on the basis of early service marketing research. The servuction model created by Eiglier and Leangeard (1975, 1976) and the interactive marketing model developed by Grönroos (1978, 1984).

The servuction model helps to categorize the resources required for co-creation activities during direct firm-customer interactions and the model adopts the perspective that the service is co-produced in interactions. Hence, service and value are being created during the process and are experienced by the user.
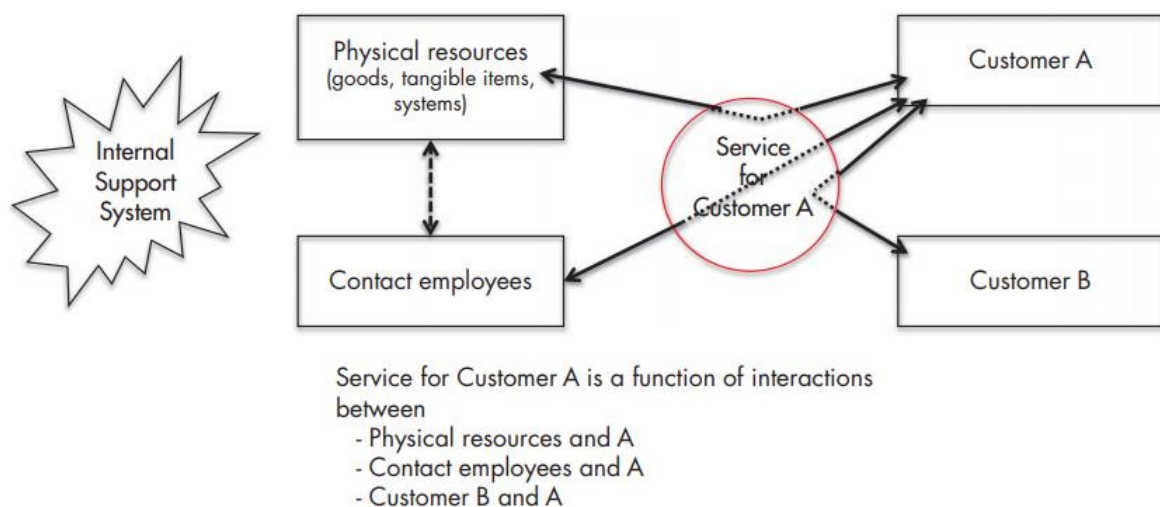


**Figure 15**: *The servuction model by Pierre Eiglier and Eric Langeard (1975, 1976)*

As it can be seen from Figure 15 above, there are four categories that divide the resources needed in the service process: contact employees, physical resources, the focal customer (Customer A), and fellow customers (Customer B that is present during the process). This model indicates the need to identify the role of fellow customers and their influence on the focal customer's experience.

The interactive marketing model shows how the resources that create value, in the servuction model, are in the direct collaboration of interactions between the firm and the customer.
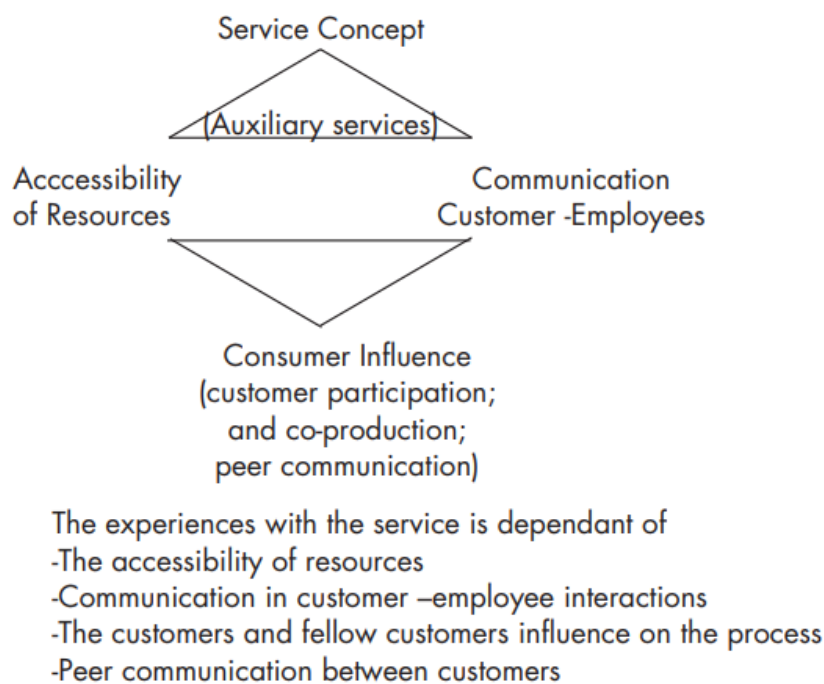


**Figure 16**: *The interactive marketing model by Grönroos (1978)*

Here we can see from Figure 16, the action variables are interrelated. The experiences during the service depend on different variables as it is listed in the figure above. Consumer influence (customer participation) consists of customers' capability and willingness. They must have the operant resources such as knowledge, skills, and insight required to perform their duty for the service to be executed. Also, the motivation of the customer is another important aspect. Depending on these variables, the service and the value that emerge vary. The customers who perform their tasks will impact the service and there will be co-creation. Otherwise, the value impact will be co-destructive.

Grönroos combines these two resources categorization and by combining, it is possible to derive a new model of value co-creation in service. The model is based on the value-in-use notion and therefore, the value co-creation emerges through joint collaborative activities during direct interactions of both sides.
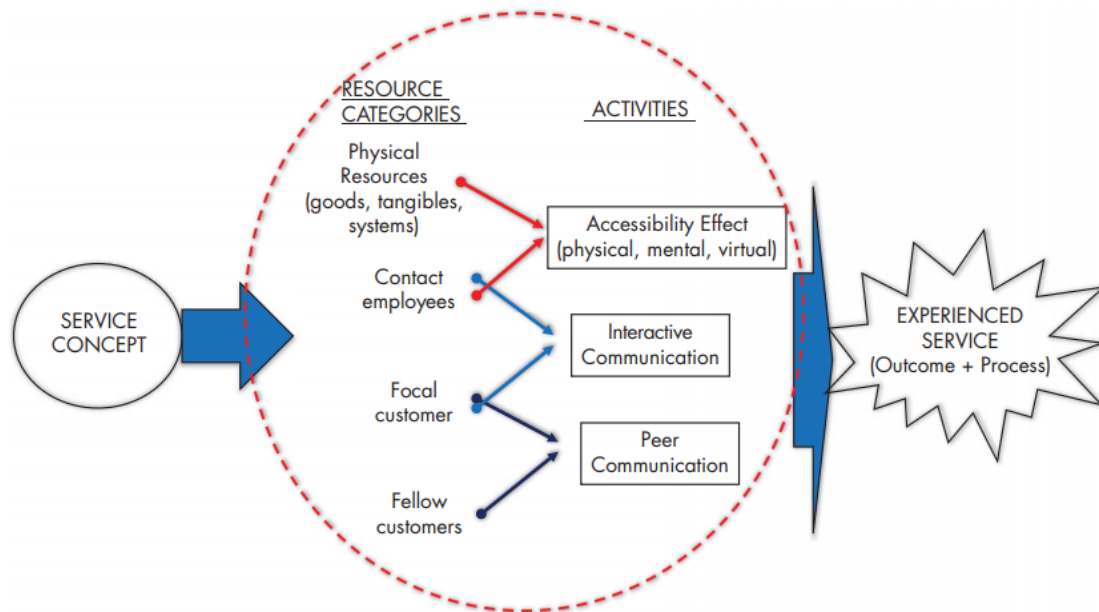


**Figure 17**: *Conceptual model of value co-creation in service by Grönroos (2012)*

The service concept is the beginning step for developing an offering and the experienced service is the endpoint. Between these points, numerous interactions that include potential value co-creation takes place. These so-called interactions serve only as a platform for co-creation that must be exploited by both parties in a sense that influences the value formation process. If the process is mishandled, it can lead to the destruction of value for customers. The middle part of the Figure 17 represents the value co-creation platform. On the left side, the resources available for co-creation activities are listed, and on the right side, the activities enabled by these resources are listed. The arrows between the two sides denote which activities are triggered by which resources. Depending on the interaction between parties and resources, the service is shaped in different ways. This model describes the co-creation of value for the customer.
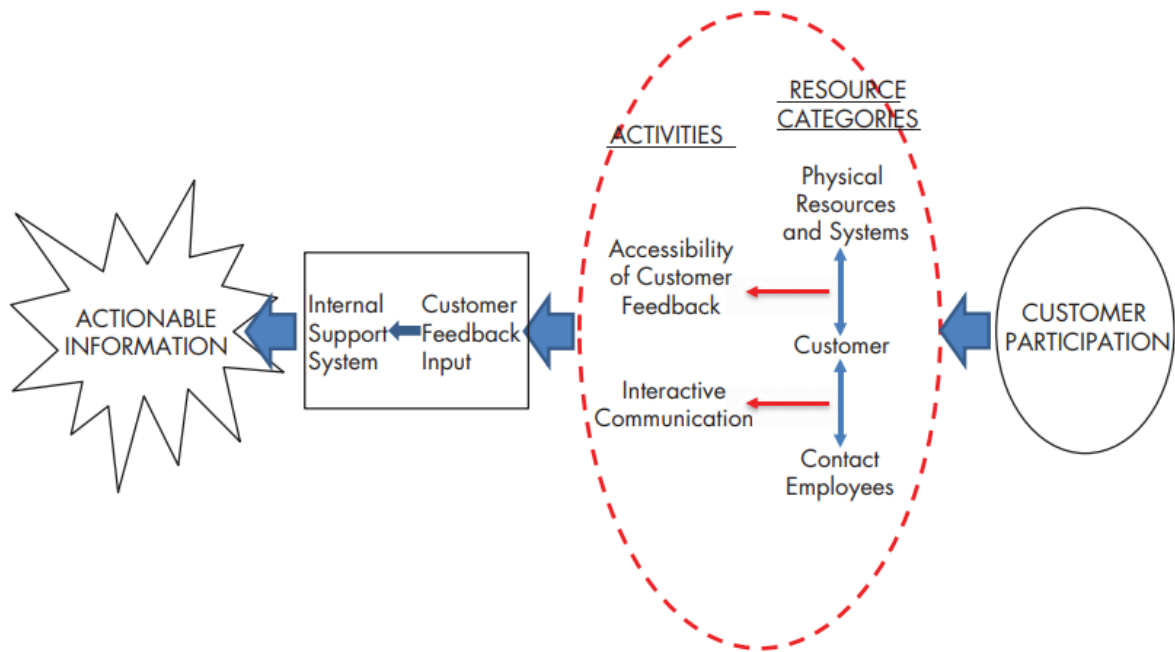
**Figure 18**: *Conceptual model of value co-creation in service: value for the service provider by Grönroos (2012)*

Here is the second model that focuses on the co-creation of value for the service provider. The process flows from right to left. The process starts when a customer participates in the service process which provides direct interactions. The capabilities of the firm and willingness of customers on giving feedback directly affect the amount of input. The interplay between the resource categories and activities demonstrates how much input from customers is acquired. In order to extract value from this input, the service provider must register, process, and turn the input into actionable information with the help of an internal support system. If the service provider manages to use the input acquired in that way, the value for the firm as co-creation value can emerge from the same value that generates customer value but, in this case,, the value facilitators are the customers and the service provider is the value creator.

## 1.1.4. Operand & Operant Resources

The customers are active players in the process of value co-creation. The value that emerges through co-creation could help satisfy customers and benefits firms. (Maglio et al., 2009; Edvardsson et al., 2011). The resources during the process are the key points of value co-creation. Additionally, from the aforementioned models that conceptualize value creation, the importance of the resources held by the firm and by the customers; and most significantly the importance of the integration of these resources on the value creation and value co-creation processes can be easily extractable. Two extensive categories of resources can be distinguished: operand resources and operant resources.

In the literature, there are different studies on resources and on classifications of resources. Madhavaram and Hunt (2008) proposed seven categories of resources that can be identified as operand and operant resources. Then, they define a hierarchy for operant resources that starts from basic to more complex, interconnected operant resources (Paredes, Barrutia and Echebarria, 2014).

The Table 11 below illustrates various resources held by customers and the service provider proposed by Madhavaram and Hunt (2008).

| | Financial Resource | Physical Resource | Legal Resource | Human Cultural Resource | Organisational Cultural Resource | Informational Resource | Relational/ Social Resource |
|---|---|---|---|---|---|---|---|
| Customer held resources | Money, Material Object, Physical Space | Energy, Emotion, Strength, | IP Right, Customer Protection Rights | Tacit knowledge, Status, Cultural Resources such as history and imagination | Skills, Knowledge and Personal values and belief | Feedback, Blogs, Reviews, Shared Information | Family relationship, Customer Communities, Commercial Relationship |
| Firm held resources | Offerings, Cash and Equity, Access to Financial Market | Plant, Equipment, Machine, Technology | Trademark, Copyrights, Licenses | Skills, Ideas, Competencies, and Knowledge of employees | Capabilities, Control, Policies, Culture | Marketing Intelligence | Relationship with supplier and customer |

*Table 11: Various resources hold by customers and firm*

Operand resources typically refer to the physical (raw materials or physical products) resources. These resources vary in quantity and quality. Operand resources most of the time refer to G-D logic and they enable parties to achieve specific goals based on different features such as functionality and aesthetics.

A study by Schnurr (2016) demonstrates the importance of some operand resources in the process. During the co-creation processes, customers have the opportunity to choose from a collection of options in products according to their own preferences. These options consist of decisions about both functional and aesthetic product features (Schnurr 2016). For example, customers can modify the bike which they want to buy in terms of size, suspension forks, and brakes as well as the aesthetic features such as its color. Functional features give customers an opportunity to achieve their goal (e.g., achieving maximum speed). Aesthetic features indicate the graphic elements of a product (Bloch, Brunel & Arnold, 2003; Dhar & Wertenbroch, 2000). The study provides comprehensive detail about the effects of the extent of different operand resources such as functional and aesthetic co-creation on customers' quality perceptions. The results highlight that the extent of aesthetic positively influences that perceived product quality through satisfaction in the co-creation process, the extent of functional co-creation influenced neither perceived quality nor satisfaction of the customer during the co-creation process. Nevertheless, the customers' level of expertise on the product results in a positive way on the quality. The outcome of the study is that the aesthetic is more of a concern than functionality in the eyes of customers if a certain amount of functionality is reached but the functionalities mush meets customers' expectations.

Operant resources, however, relates to the more extensive study field. Operant resources which are typically human (skills and knowledge of the parties), organizational (routines, cultures), informational (knowledge about the markets, technology), and relational (relationships with customer, suppliers) (Hunt and Derozier 2004). These resources lean to be dynamic and they can be rejuvenated and replenished while operand resources tend to be static in nature. Operant resources are the primary source of competitive advantage according to the S-D logic.

Operant resources held by each party may be tangible or intangible (physical, social, or cultural) (Arnould et al. 2006: Baron & Harris, 2008; Baron & Warnaby, 2011).
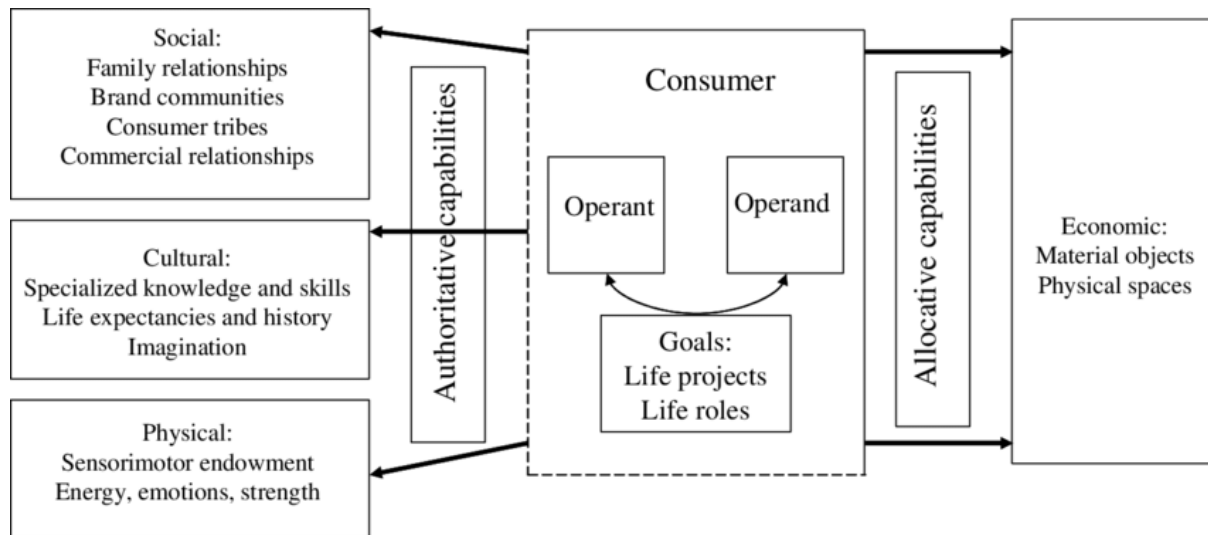


*Figure 19: The consumer's operant and operand resources by Arnould et al. (2006)*

Social resources include both personal and cultural relationships. The cultural resources are made up of knowledge, skills, life expectancy, and historic imagination. The physical resources regard the energy, emotions, strength of the individual. Thus, it can be undeniably said that the operant resources of a customer personally relate and reflect individual capacities in addition to social abilities (Alves et al., 2016).

## 1.1.5. Social aspect of Co-creation

S-D logic regarded "value" as a unique perception that is independent of the social context. In contrast, in accordance with social construction theories, all activities take place within social systems. Thus, the value co-creation goes beyond the individual and subjective setting (Edvardsson, 2011). So, the value should be viewed as a part of the collective social context. For example, a dinner with business partners differs from a family dinner in terms of the place, the meal, and beverages because the whole social context of two moments and the roles of the people in these occasions are different. Consequently, social drivers become integral to differ perceptions of service and value-in-use (value-in-context).

### 1.1.5.1. Social Construction Theories

Social construction theories provide an interpretation of the social world and to increase the understanding of how parties on a societal, group and individual level to create social occasions and structures (Archer 1995; Berger and Luckmann 1967; Giddens 1984; Goffman 1963; Linton 1936; Mannheim 1936; Merton 1957). As mentioned before in the literature, the knowledge is developed, transferred, and maintained in social situations. Social construction theories have a perspective that humans can learn, adapt, and make their own choices and the assigned value (inbuilt meaning or embedded value) depends on how individuals make sense of the offering. Theories are also used widely in marketing literature because they provide an overview on how shared understandings establish a "social consensus" that shapes the interactions of individuals (Deighton and Grayson 1995).

In the context of S-D logic, Peñaloza and Venkatesh (2006) argue that value is a social construction; they also noted that this value occurs "prior to, during and after the actual exchange and use(s) take place". These concepts are critical since they shape the reality of actors engaged in service exchange because they jointly co-create value. According to Edvardsson (2011), value co-creation adopts the principles of social structures and takes place within social systems in which the actors such as customers

and companies adopt definite social positions and roles as they interact and reproduce social structures.

Social structures refer to analytically unobservable rules and resources that directly affect social activities (Giddens 1984). Social systems can be distinguished in three dimensions: signification (meaning), domination (control), and legitimation (morality). Gidens (1984) argues that the observable social system regularities are caused by the unobservable social structure that impacts the activities of actors.

In S-D logic studies, the term "service system" is frequently used as service exchange. This so-called service system has correlations with the social systems mentioned above.

A social position is a combination of a set of roles that describe the expected and actual behaviors of individuals within a social system (Merton 1957; Schooler 1996). In regard to the service provision, the term "position" represents an indication of positions that are provided for the customer within the provider's service system, and the roles which are taken by the customers based on their willingness and ability within the provider's service system. The term "roles" describes social expectations of individuals' behaviors in social positions (Colton 1987). Thus, these two terms (position and roles) are quite related.

Social interactions contain symbolic interactions since individuals assign symbolic meaning to objects, behaviors, themselves, and others (Gopal and Pushkala 2000; Howard 2000; Mead 1934). In the context of marketing, Flint (2006) studies on symbolic interaction to analyze how customers develop value perceptions. According to the results of the study, value is not static; instead, since customers engage in social interactions, value "emerges and morphs over time for individual customers" (Flint 2006, p. 356).

In order to summarize the application of social construction theories to S-D logic, Edvardsson (2011) proposes an illustration (Figure 20) of the social system adopted from Vargo (2009).
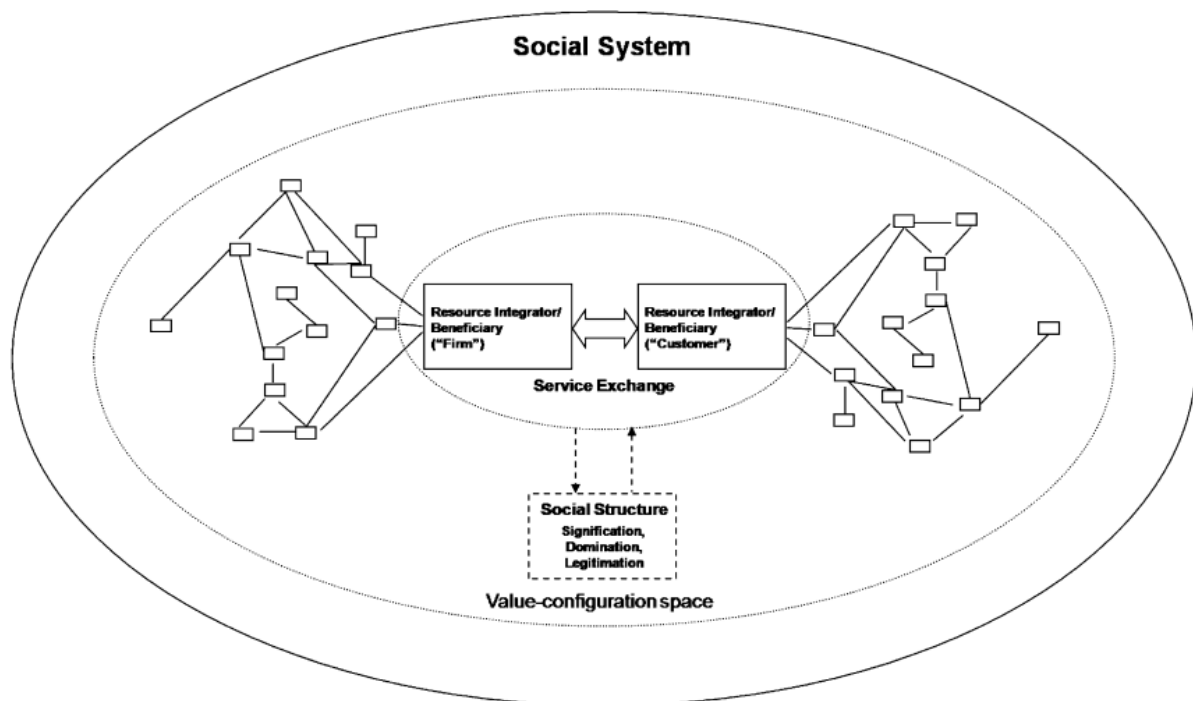
**Figure 20**: *Expansion of S-D logic by incorporation of social structure and service/social systems adapted from Vargo (2009)*

The Figure 20 above provides a new perspective adopting both the service exchange and value co-creation theories in addition to the social construction theories by Giddens (1984).

At the center of the Figure 20, the service exchange occurs between two sides which is customer and provider. They both serve as resource integrators and beneficiaries of the exchange but the center circle represents a limited network. Normally, the service exchange occurs in a wider value-configuration space because the actors are involved in wider networks. The dashed ellipses demonstrate that the service exchanges are not separated from the social system. They are always embedded in a wider social system that has an influence on them.

According to this new perspective, the author suggests new propositions to S-D logic regarding social construction theories.

Proposition 1: "Value has a collective and intersubjective dimension and should be understood as value-in-social-context."

As it was mentioned before, the value is embedded into different meanings for different actors and individuals. The same service or products may have different meanings and values for different persons because of their roles, positions, and the social systems they are involved in as they are represented within a wider social context. For example, a small car for a person that lives in a village may mean a lot and they assign much more value to that car if no one else in the village has a car than if everyone else in the village acquires a large car (Alvesson 1994). In contrast, some experiences may be more valuable if they are shared with a large number of people such as friends or family. Therefore, not only operant or operand resources but also societal norms, values and habits should be included in order to provide a better understanding on what is shaping different actors' value perceptions as a basis of providing and managing better value propositions, resource integrations and S-D logic based marketing decisions.

Proposition 2: "The way in which resources are assessed depends on the social context"

According to G-D logic, the producer is the creator, the customer is the destroyer of value. In contrast, S-D logic has a perspective that sees both actors as resource integrators who co-create value together. Therefore, in the design process of resource configurations, it is vital to pay explicit attention to the actors' positions, roles and social interactions within social structures. For example, passengers in a plane tend to rely more on information announced by the captain than on the same information given by a cabin attendant. In other words, the position of the provider determines the meaning and the value assigned to the service.

Proposition 3: "Service exchange and value co-creation can be asymmetric"

According to S-D logic, the service provision and value co-creation is mutual in terms of the benefits acquired by the actors involved. However, these benefits are not always shared uniformly as the social consensus is always a compromise between the actors and their demand (Deighton and Grayson 1995). If there is asymmetric information, actors tend to behave opportunistically in any economic interaction (Williamson 1973). Deighton and Grayson (1995), views ambiguity and asymmetry as an important part

in "seduction", which is described as the conversion of the customer's resistance at the beginning to a course of action. For example, a company which provides stockings decided to create a "luxury" box with the same quality stockings. The packaged stockings were considered as a better product and the company gained higher profits than the regular box. This is an example of information asymmetry.

Proposition 4: "Service exchanges and actors' roles are dynamic in adaptive service systems"

The experience of the customers that are involved in several service exchanges will influence their knowledge and expectations of service value and this will impact how they exercise their role as co-creators of value. The position, role and interactions of customers within numerous social systems can have a significant influence on the development of their operant resources such as knowledge, skills, experiences and consequently, on their ability to use operand resources during the value co-creation process. Thus, in order to facilitate more beneficial developments in their customers' positions and roles, actors such as front-line employees might have to adjust their roles.

In summary, the introduction of the aforementioned concepts can enhance the understanding of the service exchange and value co-creation based on S-D logic and social construction theories.

### 1.1.5.2. Emotions

In 2004, a study on emotions as a connection of physical artifacts and organizations by Rafaeli and Vilnai-Yavetz. The purpose of this study is to demonstrate sense making of three dimensions that include spontaneous emotion toward both the artifact and the organization. The link between the interpretation of artifacts and attitudes toward organizations are implied to be the emotion that surfaces in sense making of organizational infrastructures. Even though "sense making" is encouraged and partially restrained by objective qualities, such as size and color, it is also affected by how individuals view these qualities and may, therefore, differ in how they describe

the same physical artifact (Jones 1996, Ornstein 1986). The idea of individual emotions may regard the artifact and the organization helps enhance and improve the importance of such emotions. Describing emotion as transforming from artifacts to parent organizations can implement a key point to understand what connects artifacts and organizations.

The three dimensions for analyzing physical artifacts: instrumentality, which can be described as functionality or the effects on related tasks and goals, is one dimension of sense making of artifacts. A second dimension of artifacts is aesthetics which persuades in a second body of literature and practice- product and environmental design. Aesthetics can be described as sensual reactions to an artifact in the context in which it is presented. Symbolism, the third dimension is declared by the authors Rafaeli and Vilnai-Yavetz (2004) to describe the views of artifacts. Symbolism is a result of learned associations (Rafaeli and Worline 2000) that can come to lead even day-to-day things.

Authors analyzed the green bus subject to identify and describe the links between the emotions towards artifact and towards organizations. A bus of a company in Israel was painted green and the stakeholders were being interviewed about this action to encourage informants to consider the artifact from multiple perspectives. There were employees of the company, marketing professionals, design professionals, technical professionals, passengers, or potential passengers in the interviewing process. The analysis confirmed that there is no certain "reality" of physical artifacts because they are organizational circumstances that contain sense making. Sense making can lead to various views respecting symbolism, instrumentality and aesthetics and is likely to involve emotion.
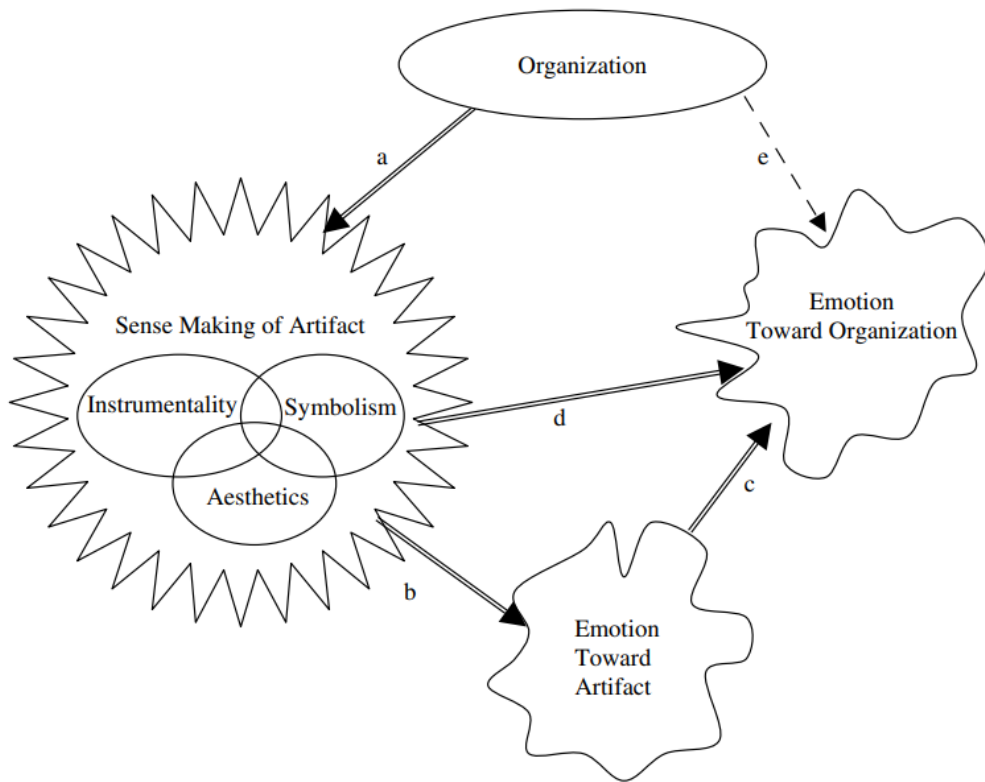
**Figure 21**: *Emotion as a connection of physical artifacts and organizations by Rafaeli and Vilnai-Yavetz (2004)*

## 1.2. Game Design

### 1.2.1. The "Game" and "Play" Concepts

"Play" is a very historical concept. Johan Huizinga, who is one of the most important researchers of the "play" concept in the last century, says, "Play is older than culture." Huizinga wrote his book "Humo Ludens" to explain the role of "play" in the history of homo sapiens.  He thinks that it is a mistake that people don't give enough attention to the games and plays while investigating human history. Play is linked with war, art, religion, etc. these are the things that create the culture in the first place.

"Play" and "game" actually two different but also intersected terms. This can be confusing for people to understand in the first place. Jasper Juul identifies the "classic game model" in 2005 as a system in which players engage through a conflict with specific rules and put their effort and see their actions' consequences with specific and identifiable outcomes.

#### 1.2.1.1. Three Levels of Play

In 2003, Katie Salen and Eric Zimmerman published a book, named "Rules of Play: Game Design Fundamentals". They define "play" as a free movement within a more rigid structure. This general definition is the reason why "play" is such a rich and complex topic to discuss and work on it.  Play is identified in three categories:

- Being playful
- Ludic activity
- Gameplay

**Figure 22**: *Three levels of play by Salen and Zimmerman (2003)*

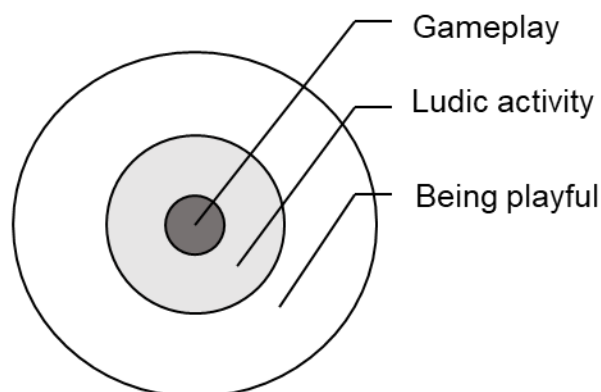These three concepts are needed to be explained and investigated in order to understand the "play" concept.

As you can see in the Figure 22 "being playful" is the broadest term of play which include any social, verbal, behavioral act that can be seen as playful. This can even be wordplay with a joke in it. Adding playfulness in every possible moment. What actually matters is how can increase these moments? Can something be playful someday and not playful the other day? The subjectivity in being playful can be challenging for players and designers.

Ludic activities are the second category of play. Ludic activity narrows the pipeline after the "being playful" concept. Ludic activities can be in a game form or not. Bouncing the ball can be seen as a ludic activity. It is not very fixed with rules, not very structured but it still has some connection with the definition of the game. But this category still includes lots of activities.

"Gameplay" is the last category and it is a subset of ludic activities. It is the narrowest cluster because "gameplay" has a certain and rigid definition. It only happens when people actually play games. The gameplay offers an experience for game players through rules and their participation. Rules guide and define the gameplay experience. According to Roger Caillois, who is the author of "Man, Play and Games", players of the games can feel free within the limit of the game rules. Moreover, gameplay includes human factors and participation and most importantly interaction. This makes it a very rich and complex concept. Because it starts to include individual playing styles, experiences, relationships, etc.

Games and play have a strong and intersect relationship. Games can be seen as a subgroup of play since they include more formalized and structured activities within the set of rules under the play. On the other hand, play is the fundamental component of the games. Salen and Zimmerman (2003) describe "play" like this: "Play emerges both because of and in opposition to more rigid rules." This point of view analyses the relationship between a game and play accurately.

## 1.2.1.2. Caillois Model

Anthropologist Roger Caillois (1962) has another point of view in order to classify the play. His model is one of the most ambitious and well-structured models to organize play.

| | **Paida** | **Ludus** |
|---|---|---|
| **Agon (Competition)** | Unregulated athletics (foot racing, wrestling) | Boxing, billiards, fencing, football, chess |
| **Alea (Chance)** | Counting-out rhymes | Betting, roulette, lotteries |
| **Mimicry (Simulation)** | Children's initiations, masks, disguises | Theater, spectacles in general+ |
| **Ilinx (Vertigo)** | Children "whirling", horseback riding | Skiing, mountain climbing |

**Table 12**: *Classification of play by Caillois (1962)*

Caillois divides "play" into four fundamental categories (Table 12) :

Agon: Games include competition

- Alea: Latin word for "dice game", games based on chance factor and includes profitability
- Mimicry: Simulation, role-playing games includes some theatrical elements and imagination
- Ilinx: Games that have the same effect as vertigo-like, destroy stability and perception.

Caillois's perception of categorizing play cover a very wide range of activities. In these, you can see such games as competitive games, chance-based games. Mimicry and ilinx have another perception in game, focuses on feeling, and include some ludic activities too.

Besides these four categories, he enriches his categorization with two more groups which are:

- Paida: represent the free-form and less structured way of joy
- Ludus: activities which are more structured and regulated with rules

While Paida includes more improvisational behaviors in the game, the Ludus category covers more rule-bound and formalized ways of play activities.

If we want to analyze the Caillois's chart under Salen and Zimmerman's definition of play which is a free movement in a more structured way, we can say that: Agon and Alea include most of the games: Competitive and chance-based games. Players organize their behaviors and their way of playing within the set of rules. Mimicry category captures the "free-movement" category with theatrical and imaginative elements. Ilinx, on the other hand, focuses on physical sensations like spinning. It is more like trying to find extraordinary new experiences with body movements.

The vertical division of the chart, Paida and Ludus, is categorizing the "how" part of the play. They are analyzing the relationship with rules and play. Ludus' side of the categorization is closer to the definition of the games because they are structured with rules. In contrast, Paida includes "freewheeling play", with Salen and Zimmerman's words. Many games can be categorized thanks to these categorizations of Caillois.

## 1.2.2. Meaning in Play

After focusing on definitions of game and play, and categorization of them in theory, the need for analyzing deeply their relationship with meaning and meaningful play. Because if there is a game, a human factor directly emerges. As a result of that immediate need for "adding meaning to that action" is born.

A good game should come with its meaning. Because experiences should be meaningful to spare time with it and want more of it again and again. Game designers should take into account the meaning of the play if they want to design successful games. As Salen and Zimmerman (2003) say that: "The goal of successful game design is the creation of the meaningful play."

Games will not have any meaning besides being a file on your computer, a deck of card, or just a box with a bunch of stuff with it without playing it. This is where human interaction starts. The meaningful play comes along with the interaction between players and the game itself.

Playing a game means making strategies, choices, taking actions within the rules of the game. Games designed to support this decision-making. Outcomes of these actions can also create new meanings in the game, this can be a new relationship between player, pieces, etc.

Salen and Zimmerman (2003), offer two possibilities to define a meaningful playing experience. The first one is based on the cause and effect relationship between the player's action and the outcome of it. According to this first definition, every play generates meaning while players play them because in every game player decide something, make their moves, see their outcomes, and again generate new actions according to the outcome. The first definition can be shortened as "descriptive".

The second definition based on the experience of meaningful play, emotionally and psychologically. Meaningful play is "evaluative" in this sense (Salen and Zimmerman, 2003). The success of a meaningful play can be evaluated with how well players can see their action's reflections in the game. In other words, the relationship between outcome and actions should be "discernable" and "integrated".

- **Discernable:** Are the results of actions perceivable by the players? If yes, how successful is the game to communicate it to the player? For example, a player playing a war game and when he/she conquers a place there is no sign of war or that place is now his/hers, etc. This is critical information for that player and also for others. How they can know what to do next if they cannot track anything inside the game? If players do not receive any feedback, they cannot know how close they are to win/lose, or their moves are good or bad. The gameplay suddenly becomes meaningless. For this very reason, there should be feedback for players' actions and their outcome, and it should be discernable.

- **Integrated:** This feature of meaningful play is about can players see their actions' outcomes in the big picture of the game, in the larger context. The consequence of each action should be well integrated into the whole game. If players think that each move, they make will affect their future events in the game, they will try to make more meaningful moves. They can even develop a strategy. Integration of the results of actions also has an impact on engagement through the game.

If we compare these two terms, discernibility and integration, discernibility helps the player to follow their action and its outcome, tell them what happened. On the other hand, integration lets players see the big picture of this outcome and how it will affect the game flow. They are both important and necessary for a meaningful gaming experience. Meaningful plays engage their players and elevate players' experiences. They enhance and shape the gaming experience. The genre of the game or being digital or board game is not important in this sense. Meaningful play can exist in any kind of game if it is well-designed.

## 1.2.3. Rules in Games

Game's definition is that is the system that operated with specific rules and players put some effort, make some action they can follow their actions' outcomes immediately and in a bigger context. These factors are the keystones of designing a successful game and meaningful playing experience.

Games are a subset of ludic activities and being playful with having rigid structures and regulated by rules. Rules are one of the most important elements of the games in definition and also to offer a meaningful play.

Rules are the formal identities of the games. They are the tools of a designer to shape players' experience. Rules are also needed to learn a game and start to play it. Salen and Zimmerman (2003), give the example of Tic-Tac-Toe. This game has been defined with a set of rules and they are all players need to know to start playing. They describe the system of the game and they are the same wherever and wherever players play. The rules work as "formal identity" of the game.

The combination of the specific rules creates a "game mechanic". Rules do not give any information about the gaming experience. they are just the set of rules to explain the game and start to play.  Producers and designers can create several games with the same mechanic while changing graphical elements and theme of it. Because of the formal system of the games, in other words, "rules" do not refer to the experience of the game. For example, a designer can create a game with the same rules of Tic-Tac-Toe but within a different theme and graphical way. It could still remind Tic-Tac-Toe by observers because of the formal structure but it will not be identical with it.

Rules are the differentiation points of the game that make them actually game rather than a free play. They limit players and guide them into specific road maps. Rules are the tool for designers to shape the player's experience even without being there. Game rules have some characteristic and qualities:

- **Limit player's action:** Rules are a set of instructions that players need to follow in order to "play" the game and reach their goals.

- **Be complete and unambiguous:** Rules need to be obvious and clear to avoid ambiguity during the gameplay.

- **Same rules for all players:** All players should share the same rules with each other to secure justice and avoid disagreements during the play. Players should share a common understanding of game rules and their interpretation.

- **Be fixed:** Rules should stay the same as long as the same gameplay. These characteristics are important to avoid vulnerability and cheating during the game.

- **Binding for players:** Rules should be followed by players to create a rigid structure into the gameplay. They need to be binding otherwise players can tend to cheat.

- **Be repeatable:** Rules should be repeatable and easy to transfer between sets of different games and players.

These six qualities are essential for the rules. Without one of them, the formal system of the game will fall apart. These characteristics of the rules make the gameplay possible. In contrast, the characteristics of rules can be violated by the designers on purpose to offer a new kind of experience for their player, for example, the rules don't need to be followed strictly so players can cheat to increase the surprise effect and excitement of the play.

## 1.2.3.2. Three Kinds of Rules

Salen and Zimmerman generate a three-part system to understand better the formal structure of the games and what kind of rules structured it in which level. These are:

- Operational rules
- Constitutive rules
- Implicit rules

Operational rules can be seen as "guidelines of the play". Players need operational rules to play the game. These rules are generally written by the designers and producers for each game and they need to be obvious for all players.

Constitutive rules represent the formal structure of the games. They explain the logical and mathematical aspects of game mechanics in a very simple way.

Implicit rules try to structure a proper game behavior and culture. They are unwritten rules to provide ethic and fair gaming experience for players. Since they are unwritten rules, implicit rules can change according to the context of play and the game itself. For example, a player can decide to stretch the rules a little bit for his/her kid, or players can look at each other's cards if they are playing the game for the very first time.

Since we try to explain above, rules are complex components of the game more than expected. Operational rules are instructions and a step-by-step handbook for players. For example, in the boardgames, operational rules should explain how to interact and use the tangible components of the games like dice, board, spinner, etc. They shape the interaction between game components and players and also between players. Constitutive rules explain the basic formal structure, mathematical logic of the games. They do not explain anything about the player's experience or how they are going to use them. They are abstract. On the other hand, operational rules there to explain and describe the actions for players, how they are going to interact with the game, in which sequence, etc.

In this sense, designers can design brand new games with the same constitutive rules but different operational rules. Because operational rules are the ones who tell players how to play the game and create the interaction and gaming experience. Designers

can change the materials, components, and the theme but still using the same mechanics and same set of constitutive rules.

The third kind of rule is implicit rules. They organize the behavior of the players in a sportsmanship context. Implicit rules try to provide the same standards physically and logistically. Such as placing the board to the middle or let every single player have the same number of cards, etc. Implicit rules can change according to the context and environment. Because they depend on culture, education, age, tradition, etc. These are the operant sources of players that change in every game and change for each player. In other words, implicit rules create a connection between the authority of the game and the cultural side of the players. Operational and constitutive rules are necessary for the formal structure of the game, but implicit rules are also important to play the game and provide a meaningful playing experience.

### 1.2.3.3. Rules as Game's Identity

Rules define the formal structure of the games. David Parlett explains this side of the rules in his book "The Oxford History of Board Games" (1999) in this words: "Huizinga says that 'Every game has its rules' (Homo Ludens, 1938), but we may go further and say 'Every game is its rules.' for they are what define it."

If games' "formal identity" comes from the rules, operational, constitutive rules are equally important to bring it to life. These two kinds of rules become together and create this unique identity for each game. Formal identity allows players to distinguish that certain game from the other games. "Specificity" of the rules becomes key at this point. Being exact and unambiguous qualities of the rules and intersection of them creates this differentiation point for the games. The "magic circle" which means the meaningful gaming experience, is created by these three levels of the rules: implicit, operational, constitutive rules.

Games come along with their ideal set of rules, but during the gameplay human factor emerges and this becomes a game-changer for the application of the rules. Players do not have the same motivation or intrinsic values during the game and they sometimes misapply or subvert the rules while playing.

*1.2.3.3.1.1. Types of Players*

In order to understand how players, react to the rules, we need to analyze players' type and how they play games. Salen and Zimmerman (2003) categorized players into five groups:

- The Standard Player
- The Dedicated Player
- The Unsportsmanlike Player
- The Cheat
- The Spoilsport

The standard player plays a fair and honest game just like it designed. He/she respects the rules and follows the guidelines of the game. It mostly occurs in face-to-face gaming experiences. Because games are like social contracts. This type of interaction during the play retains the authority of the rules. (Salen and Zimmerman, 2003).

The dedicated player plays the game in an extreme way, he/she wants to be master of the game, develop different strategies, become geek of the game and enjoy pushing the boundaries of the rules and loves being successful in the game. They want to be an expert.

The unsportsmanlike player follows the rules of the game but has some bad behaviors on implicit rules. For example, distract other's attention while playing chess or do not let younger players win. They violate the unwritten rules of the games but still want to avoid being called as a "cheater".

The cheat violates the formal structure of the game. The purpose is to win the game, he/she does not accept the authority of the rules.

The spoilsport has no interest in playing, he/she does not care about losing or winning the game. He/she does not enter the magic circle to experience the game, so doesn't care about the rules either.

| | Degree of lusory attitude | Relationship to rules | Interest in winning |
|---|---|---|---|
| Standard Player | Possesses lusory attitude | Acknowledges authority of rules | Typical interest in winning |
| Dedicated Player | Extra-zealous lusory attitude | Special interest in mastering rules | Intense interest in winning |
| Unsportsmanlike Player | Sometimes resembles the Dedicated player, sometimes resembles the Cheat | Adherence to operational rules, but violates implicit rules | Intense interest in winning |
| Cheat | Pretends to possess lusory attitude | Violates operational rules in secret | Intense interest in winning |
| Spoil-Sport | No pretense about lack of lusory attitude | No interest in adhering to rules | No interest in winning |

*Table 13: Categorization of players and their characteristics by Salen and Zimmerman (2003)*

The boundaries of these categories are a little bit fuzzy. The categorization can even change while playing the game according to player's actions to the rules. But on the other hand, these types of division give a proper understanding on how people generally react to the rules during the game. Game designers should understand who their target group is, how they react to the rules and each other in the game, etc. This understanding is essential to create successful game rules and mechanics. Because some types of players, for example, dedicated players and cheaters, looking for the weaknesses of the games. they are trying to find open windows to enter and destroy the designer's strategy with theirs and ultimately to win. This type of behavior named "degenerating strategies". This concept generally happens in complex systems and it can happen both in digital and non-digital games. Degenerating strategies is not officially cheating, players are just finding blank spaces of the games and take advantage of it.

Since there are different types of players, there is no standard way to play a game. One play can be played in several ways. Players can bend or break the rules or not even interested in them. Game designers should consider that they can not 100% predict players' actions. They need to consider there are different possibilities. Thus, making playtests becomes very important. Testing a game during the design phase helps designers to design a better gaming experience, understand whether their mechanics and rules work or not. This is essential to reach a meaningful play design. Making different versions and making playtests helps designers to solve these problems before the release.

Rule-breaking, cheating, and degenerating strategies can be seen as destroyers of the game systems. These are common. But if designers are aware of such possibilities and take advantage of it them and use these possibilities to enrich their game design. New Games Movement uses this phenomenon to enrich the games and support players to break rules modify them because they designed the game under this concept.

## 1.2.4. Game Experience

Gaming is not just about the rules. A "game" should be "played" by players to have a complete meaning. During the play, players communicate with each other, have emotions, develop strategies, and feel the gaming experience with their senses.

American Heritage Dictionary defines the term "experience" as:

- The apprehension of an object thought or emotion through senses or mind
- Active participation in events leading knowledge or skills
- Even or event series participated or lived

According to these definitions, we can say that experience should be lived through. Senses are also mentioned in the first meaning of the experience. In order to play a game and reach a meaningful experience, a game should be sensuous. Engaging

meaningful play should offer a multisensorial experience to its player; see, touch, hear, smell, maybe even taste…

Brian Sutton-Smith (1986), represent a model to explain five elements of game experience:

- Visual scanning
- Auditory discriminations
- Motor responses
- Concentration
- Perceptual patterns of learning

Sutton-Smith worked on digital games, but his gaming experience model can be applied for all types of games. It is clear that he developed his model around the five senses, physical actions, and mental mechanisms.

The most abstract category above these five is perceptual patterns of learning. During the game, players learn thing with their perceptions and turn them into actions. It is like a two-way street. This requires coordination and seamless transition. Players learn things, make their decisions, and take some actions as a result they see outcomes of their actions.

```
                  ┌─────────────────────────────┐
                  │ Player makes internal action │
                  └─────────────────────────────┘
                     ↑                        │
                     │                        ↓
      ┌────────────────────┐      ┌────────────────────┐
      │ Game creates output │ ←──  │ Player takes action │
      └────────────────────┘      └────────────────────┘
```
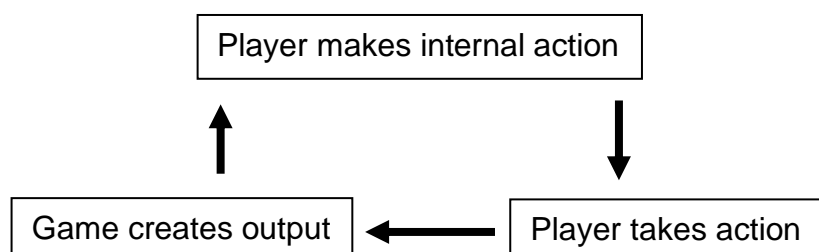
**Figure 23***: Game flow by Salen and Zimmerman (2003)*

This flow explains the relationship between inputs and outputs in the games. Sutton-Smith's model is helpful to understand how players play the game and experience it. This model is capturing some micro-moments which are part of a bigger picture and create meanings for the whole game in a larger context.

Game designer's biggest challenge is how to design experience for players without being there while the game is playing? How they can interact with their player through the game?

Actual game experience occurs with its players and starts whenever they start to play. Game designers trying to find ways to shape a player's experiences even they are not there.

Designers can directly create their games, but they are also implicitly creating and shape players´ experience too. Game designers use some tools in order to do that. They create rules, the theme for players to explore and interact with it. But without a formal structure that we mentioned in the previous part are essential tools for designers to interact and shape players´ experiences indirectly.

In-game mechanics, rules lead players to generate strategies and make choices in order to achieve their strategies. It is undeniable that making choices requires experimental dimensions. Also, since a meaningful play requires discernable and integrated outcomes during the game, every choice in the game means something and it affects both short and also long-term outcomes. This is another exciting point about games for players. Designers should take into account that micro-level decisions and interactions come together, eventually, they create macro events and their outcomes during the play.

A core mechanic is another tool for game designers to indirectly interact with players. A core mechanic can be a single action or set of actions, but it is essential to play a game. For example, writing words with letters is the core mechanic of Scrabble. While playing Scrabble I players always try to write new words over and over, so it becomes a behavioural pattern inside the game. These patterns of behaviors create the experience for players. A core mechanic creates a summary of the interactivity profile of players inside the games. According to Salen and Zimmerman (2003), if the game is not successful or fun, players can blame the core mechanics. Because if the core mechanics are fun to play it means that the game offers a meaningful and fun set of activities for its players.

Every game has its own rules and these rules become the formal structure and core mechanic of the play. During the gaming experience, players make decisions from the pools of possibilities that the game system offers to them. Game rules help players to make meaningful decisions in the game context. Rules, characters, game components create tension, excitement, stress, anger, and relief. These feelings create the experience and make the game memorable. Players experience the game through their five senses, thoughts, etc. Live this experience both at the cognitive and physical level. Just offering a story with a theme is not enough to create an experience for players. Designers should create interactive systems, including a set of rules and decisions through activities. Creating a total experience requires attention in micro-level activities and the connection of these micro-level activities creates a larger experience. In order to that designers should give attention to three components in order to create an experience system:

- Inputs as players' actions
- Outputs of the game system
- The internal process that players interact with their decisions.

The gaming experience is a combination of decisions of players and the possibilities of all the consequences of these actions offered by the game's system. Rules and themes are essential to play the game but also, they are creating the relationship between players and the game, they give particular meaning to players' actions.

Themes help designers to tell a story, catch the player's attention in the first place, and engage them. But this is not enough. To offer an experience, a meaningful experience, designers should offer interactivity. The game should attract the player's emotions, during a single moment or within a whole game. A successful game offers rhythmic emotions, pressures to its players. Players develop strategies, plan their next moves to deal with this pressure. The core mechanic is the starting point of these cause and effect relationships and powerful experiences. It can be a single move, like answering questions in Trivia or a combination of activities. A core mechanic can be used by several different games thanks to its variations and through different themes.

## 1.2.5. Pleasure in Games

Games offer pleasure to their players through experiences. If the game mechanic and the rules are designed carefully and combined with the theme and story, the game offers the perfect experience and pleasure to its players.

"Pleasure" is an essential feeling that is hard to explain by words, but people want to experience it. Pleasure reminds several emotions and feelings like delight, satisfaction, happiness (Salen and Zimmerman, 2003). Therefore, pleasure can emerge physically, emotionally, or psychologically.

Pleasure is the intrinsic result of playing experience. It increases the replayability, playability of the game, and offers a positive experience to the players regardless of the outcome. Pleasure can emerge through several factors inside the game, like imagination, sense of achievement, narrative role-playing, or socializing. In this way, players feel the fun factor during the game and feel satisfied after playing it.

There are several methods and tools to boost pleasure for players inside the game. One of them is the rules. According to Vygotsky (1976), rules maximize pleasure inside the game. It seems like rules are decreasing the pleasure and limiting the player's actions, but it is not like that. Rules create the game structure and help players to have better playing experience and pleasure beside it. Salen and Zimmerman (2003), give "wines" as an example. They say that if the wine is aged well, its taste becomes better and better. The "constraint" topic can be a good starting point to understand the pleasure in the gameplay. For example, stylized behavior is one of the core game design concepts. Rules give some restrictions and create patterns from players' actions. These patterns of actions engage players, like rolling the dice or countdown of the clock, etc. Rules create a connection between constraints and pleasure inside the gameplay and elevate the gaming experience.

The other tool to increase pleasure is the magic circle of the game. Magic circle helps to create a world inside of the game and offer a different experience to the players and help them to live in another world during the gameplay (Salen and Zimmerman, 2003). Each game has its own rules and meanings around the actions. They provide goals, stories to their players. Psychologist Csikszentmihalyi (1991), explains this magic circle in another term, which is "autotelic". It is a Greek word that means "self-goal". He

explains the reason for playing games is not to gain future benefits, players play games to reward themselves. According to Csikszentmihalyi (1991), if the experience is autotelic, just being part of it counts, no matter whether you win or lose. This perspective is a perfect explanation for the "pleasure" concept in the gameplay. The magic circle gives a special effect to the experience and separates it from regular daily activities. This explains the intrinsic motivation to play games. It can be winning, having a good time, etc. Intrinsic motivations can be anything rather than non-utilitarian motivations. This type of motivation is the reason for the endless innovations in the game industry. Because people play games not to gain tangible benefits like finding food to live or earn money to live. They want to experience different things, pleasures, and feel satisfied. To make people play again, designers should offer an interactive and meaningful experience to satisfy their desires.

### 1.2.5.1. Double-Seduction Model

At the beginning of the gameplay, players have intrinsic motivations to start the game and enter the magic circle. Secondly, during the game, it is really important to engage players and lead them to stay inside the magic circle. This is called as "double seduction" model. (Salen and Zimmerman, 2003). The first seduction happens when players enter the game and join the magic circle. The second one is about engagement and happens when players continue to play the game.

Designing a game with a successful double seduction model is not an easy task. For ludic activities, it is easier to enter the first seduction. For example, trying to juggle a soccer ball is an easy task to start. But to play games, players need to be prepared. Players need to learn rules, find the required number of players to play, settle down, find an internet connection for computer games, or a proper space for board games. The first seduction does not need to start while starting to play the game itself. It can start even before buying the game, for example, while watching a video from Youtube and see people playing that game. This starting point of the seduction is not certain. Designers should take into account the macro-environment of the players. They need to analyze their target players well, how they live, what are the cultural and social environment, etc. Understanding the operant resources has an important role to predict and design the first seduction.

The second seduction is about game experience and pleasure. In order to achieve it, designers should understand the types of pleasures and the methodologies that we mentioned previously like rules and core mechanics.

## 1.2.5.2. Types of Pleasure

Pleasure is a hard concept to define. But players experience it in each play. Excitement, stress, anxiety, achievement, competition are some of these emotions that players have while playing games. Designers generalize these emotions and pleasure and call them "fun". But "fun" is a complex term in this sense and can be misunderstood by people.

Le Blanc announced his categorization to understand the types of pleasure inside the games:

- Sensation
- Fantasy
- Narrative
- Challenge
- Fellowship: pleasure in a social context
- Discovery
- Expression: self-discovery side of the games
- Submission: hypnotic pleasure coming from behavioral patterns of the games coming from the rules

This model generates a common understanding of the "fun" factor for game designers. Moreover, it creates a general framework for the marketing of the games. For example, the Le Blanc model can be used to categorize games. In this way, players understand the overall sensation of the game and compare them with other games.

There is another model that comes from psychologist Micheal J. Apter is more focused on the cognitive side of pleasure to categorize it. Like negativism, cognitive synergy for imaginative games, etc.

The third one is the Caillois Model that we mentioned in chapter 5.2.1.2. The vertical four categories Agon, Alea, Mimicry, Ilinx are Caillois's categorization for play.

| | Paida | Ludus |
|---|---|---|
| **Agon (Competition)** | Unregulated athletics (foot racing, wrestling) | Boxing, billiards, fencing, football, chess |
| **Alea (Chance)** | Counting-out rhymes | Betting, roulette, lotteries |
| **Mimicry (Simulation)** | Children's initiations, masks, disguises | Theater, spectacles in general+ |
| **Ilinx (Vertigo)** | Children "whirling", horseback riding | Skiing, mountain climbing |

**Table 14**: *Classification of play by Caillois (1962)*

## 1.2.5.3. The Flow of Games

Game flow is another approach to understand the pleasure of the game. Game flow is a way to offer an experience for players. Flow is having control of actions inside the game (Csikszentmihalyi, 1991). Flow is the optimum feeling that players feel when they achieve their goals inside the game, feel the happiness, and feel engaged. It is something that relates to emotions and feelings. The "flow" concept is something that designers want to offer their players. Csikszentmihalyi (1991) explains eight components of the flow. Four of them are effects of flow state and the other half are the prerequisites of it.

The four components of the effects of flow state:

- Concentration
- The merging of action and awareness
- The loss of self-consciousness: Players become part of the game and characters of it.
- The transformation of time: The changed sense of time for players, they don't understand how time flies.

The other four components as prerequisites of flow state are:

- A challenging activity
- Clear goal
- Clear feedback

- The paradox of having control in the uncertain situation: Players can control their actions inside the game, but the consequences of their actions are not certain.

Flow state is essential for a meaningful play experience. With a successful flow state, the game offers discernable and evaluative feedback and meaningful outcomes of actions in the whole game. Meaningful play and flow are two intersect concepts for successful game design. Designers elevate gaming experience with flow states and engage players in the game. If players give enough attention and time to the game with a successful double seduction model, they will reach the "flow".

### 1.2.5.4. Methods to Shape Desires

Game designers shape players' experiences, emotions, pleasures, and desires for the game. This is not just about the one play moment; designers should also take into account the fluctuations of emotions and reactions in a single game and between multiple games.

Playability and replayability are the two critical points for the engagement of players and their pleasure. They are also related to the double seduction model. To make to reach the first seduction faster and increase playability, games should be easy to learn. This increases the short-term pleasure of the players. For both digital and board games or card games players need to learn the game rules, understand the theme, find enough people to play the game at the same time, etc. There are enough pre-conditions to start to play and enter the magic circle. Designers should offer easy to learn but hard to master games for players. If the game is difficult to master players need to play the game more than once. This increases the replayability of the games and the long-term engagement of players.

Pleasure inside the games evolves and transforms during and between the gameplays. Because the game offers a variety of different scenarios and paths to its players. Salen and Zimmerman (2003) call this concept "space of possibilities". This space allows players to have different experiences and follow different paths in every single game. If the experience is different at each play, people will not get bored and want to play again and again. The "space of possibility" concept is also called as "same-but-different

approach". Rules are same, the formal structure of the game is same, but the players' paths are experiential. There are several possibilities of results and storyline to follow. This makes games powerful and encourages players to play more. It is not an easy task to achieve but it enriches the gaming experience and pleasure. It also enhances the replayability concept.

### 1.2.5.5. The Tricky Balance of Boredom and Anxiety

Players feel different types of pleasure during the game. Designers create a world with rules, themes, and flow state. These factors lead them to go to many directions and have different emotions in the gaming experience.

Csikszentmihalyi (1991) generates a model to understand how players are pulled and pushed by designers inside the game. Designers offer challenges but how players react to these challenges through their skills. Y-axis of the Figure 24 shows the challenges that activity offers, and X-axis shows the players' skills.



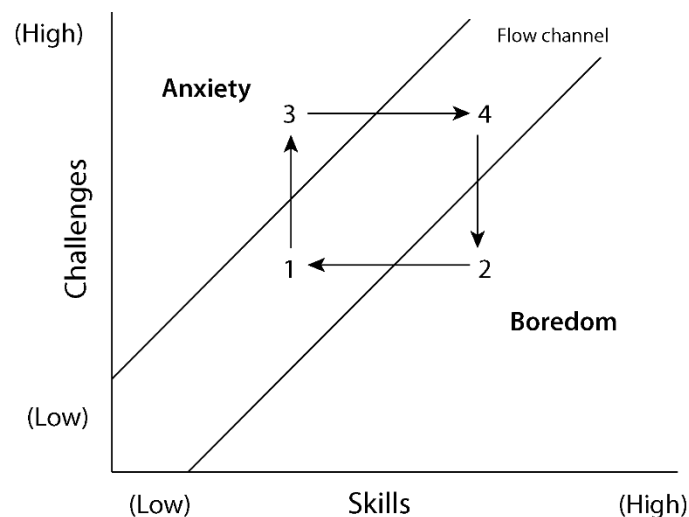**Figure 24**: *The boredom and anxiety chart by Csikszentmihalyi (1991)*

If the challenge is too high for the player's skills, this gives the player anxiety. On the other hand, if the challenge is too easy for the player's abilities, they will feel bored. In both cases, it becomes harder to provide the flow state or stay inside the magic circle. Players can decide to give up playing if the game is too challenging for them. In

contrast, players can decide not to play that game because it is too simple for their skill level. This boredom-anxiety concept is tricky and fragile. Designers should analyze their target well in order to offer the best balance between challenges and skills. If it is too simple, they can add another level or rule to make things interesting and worth exploring for players. This model is not about one moment in the game, it is about all the game experience even across many games. This balance is essential for the flow state. If the challenges and skills of players are not balanced well, this becomes the enemy of the flow state. The iterative design method is very helpful for designers to adjust this balance carefully and offer meaningful play.

## 1.2.5.6. The Role of Goals, Rewards, and Punishments

"Gameplay" is different from other forms of play. Games are different from ludic activities of being playful because they have clear outcomes and goals at the end. This differentiation point is an important factor to offer pleasure to the players. A goal inside the game is the largest component to provide pleasure to the players (Salen and Zimmerman, 2003). It gives a reason to play and help players to generate strategies to achieve that goal. Setting goals gives motivation.

Game rules are excellent tools for designers to shape "setting goals" and taking "actions to achieve that" phases. Designers indirectly shape this side of the experience. Goals are ultimate targets for players and because of the nature of the target, they will give an effort to reach that. This effort will affect the playing experience and pleasure.

There are two types of goals inside the games. One is macro-level goals like targeting to win. The other one is the micro-level goals. They are like short-term goals to achieve inside the game and engage players. These micro-level goals create engagement with the core mechanic of the game and always keep players awake during the game. They create small moments of excitement, a sense of achievement, stress, and pressure, etc. Players feel like they are in charge and have control of the game thanks to these short-term goals. This really encourages the players and they feel more involved with the game. They generate strategies, make plans in order to achieve that short-term goals, don't feel like loss inside the game, and think more about their macro-level target. This satisfaction elevates the pleasure factor inside the game.

According to behavior theory, interaction with the environment shapes the behavior (Salen and Zimmerman, 2003). Inside the game environment, there are some reinforcements, they can be positive or negative. This is very common. For example, players can win some extra lives after reaching a certain level, this is positive reinforcement. Yet, there can be some negative reinforcements to intimidate players and make them follow the rules like losing points, not being able to play for the next round, etc. These positive and negative reinforcements protect the surprise effect and create excitement for the players. They are very strong tools for designers to shape players' behaviors and strategies inside the games.

To conclude the pleasure concept inside games, we can say that pleasure is a hard word to explain, difficult to design but every player plays the games to experience it. It is open-ended and complicated, has different layers. There are some concepts to reach pleasure in the games that we have already discussed above like repetition, reward and punishments, rules, setting macro/micro-level goals, etc. But the pleasure concept still protects its mystery and subjectivity, for this reason, designers still try to find new ways to design and invent the way of offering pleasure for their players.

## 1.2.6. Narrative Play

Things should establish several components to be "narrative". Firstly, there should be a situation and a series of events and activities that change that situation. Secondly, there should be characters and personification. This helps the audience to feel more engaged and involved. The last one is that there should be some elements of the narrative that stand the same and become a pattern inside it (Miller, 1990). To conclude, the Miller model says that there are three critical elements for being a narrative: Situation, character, form. This model is abstract and simple. There are not too many conditions for the games to be "narrative". This clearness gives a hint to designers about where to focus on to enrich the narrative side of their games.

The narrative should also be analyzed within the gaming experience concept. How the elements of narrative affect players' experience? Games are complex systems; they offer sensorial experiences for a meaningful play. Designers use storylines, themes, characters, and choice-making to shape players' narrative experiences. For example,

the interaction factor inside the games, the interaction between characters, and between players supports the personification element of narrative experience.

Over the last decade researchers, designers have been trying to analyze the relationship between games and narrative. Juul (2001) identifies three arguments to explain this relationship. The first one says that people use narrative for almost everything. We use narratives to make sense, share information with others, or to tell what we see yesterday. The second argument says that games mostly use narrative expression style for instructions and the story behind the game. Players feel to start the larger context, feel part of the story. In other words, they enter the magic circle. The third one claims that narratives and stories have common features like their structure.

The experiential patterns, the complexity of core mechanics, dynamic formal structure of the games are key concepts to understand narrative sides of them. There are two game structures to understand different narrative forms:

- Narrative as a crafted interactive story within the whole game
- Narrative experience emerges while players playing the game

For example, "the two states are fighting to conquer the land" offers a narrative, interactive story during the whole game, which fits in for the first game structure. "Two states are fighting in order to gain soldiers for the next level" is something that emerges while playing the game. Le Blanc (1999) explains these two structures in one of his conference speeches as "emergent" and "embedded". The embedded narrative represents the first structure. "Embedded" means that the narrative was there before the player's interaction, it gives motivation and a major story arc to experience for the players. This is a very strong point to offer a meaningful play. On the other hand, narrative can emerge while players are playing the game. The formal structure and core mechanics of the game help narratives to arise. Players' choices, their actions shape this type of narrative. Emergent narratives can be unexpected and unpredictable. This increases the excitement factor in the game experience.

To reach the strongest narrative experience, embedded and emergent narratives should be balanced. While embedded narratives are offered by game designers and

strong tools for them to shape players' interaction, the emergent narrative makes the game experience unique for each player.

Embedded and emergent narrative approaches are not enough to offer fully engaged narrative gaming experience. Meaningful play's core principles like rules, goals, conflict, core mechanics, and uncertainty should take into account. Goals help players to see their path and how to develop a strategy inside the game. Players determine their next move according to their goals. The macro-level goal of the game shapes total experience and offers meaningful interaction. The embedded narrative offers a story arc to the players. Emergent narratives are shaped by players' moment to moment decisions. These can be some temporary goals or decisions that players need to make after an emergent result. And also depends on the interaction between players. The goals of players inside the different layers of the game, macro or micro, help players to feel the story and engage more. Moreover, designers have control of the narrative. Goals help to enrich meaningful gaming experience while supporting narrative play.

The other core principle of the games to support the narrative inside the gameplay is conflict. They offer a chance to the players to be involved with the narrative and create emergent narratives with their reactions to the conflicts. Conflicts also help players to build social relationships while they are fighting with conflicts. They can trade their cards, help each other in the wars to win, etc. Conflicts increase the excitement and tension inside the game.

The uncertainty factor is the other condition to offer a meaningful play. If players know the outcome in advance, they do not want to play the game. Because there is no excitement and surprise factor for them to feel motivated. Uncertainty helps each player to play an important role inside the adventure. They want to explore and play more.

A core mechanic helps designers to design set of actions and behaviors. Behavioral patterns created by core mechanics. But thanks to the narrative games are not just constituted by core mechanics. There is also an experiential side with the help of "space of possibilities". Players can play game with core mechanics and interact with them with the help of a narrative context. Space of possibility offers a chance to the players to interact with the game, change the story with their creativity. Each player

has a chance to respond, shape the narrative structure of the game. Space of possibility enhances social relationships and interaction between players and increase satisfaction at the end of the game. Also, instructions of the game help to enter game's magic circle and understand the narratives of the game before starting to play. Instructions called "narrative descriptor." If the game successfully designed, players don't have to read instructions because all narrative elements are smoothly blended. Players can directly experience the narrative.

Narratives make games more memorable. People experience the narrative and want to spread this experience with the world. This means the game's narrative caught the target. If people start to retell game stories this becomes the word of mouth, other people will want to play and live that experience too. Also, retelling offers a chance to increase the replayability of the game. It helps to build communities, share interests, and build social relationships between players.

## 1.2.7. Games in Social Context

Inside the game, players usually play as individual players, but it is undeniable that social interaction and experience starts when another player joins the game. Games become a way of doing something together, to build relationships and "play" together. "Interaction" is one of the key elements of meaningful play.

Social play can emerge in two levels inside the game:

- Internally: Social relationships emerge inside the magic circle. They happen because of the game rules and structure.

- Externally: Players bring their social roles outside from the game. They do not depend on the game. Like friendships, rivals, families etc. These types of outside relationships can affect the player's choices, actions inside the game.

Both these two relationships can change during the game, they transform within the game structure.

What happens if two people do not know each other, they do not even speak the same language? In this case, the core mechanic takes the lead and becomes language

between two players. Two people can play Tic-Tac-Toe even though they do not speak or understand each other. Game mechanic of the game becomes the language and communication tool between the two players (Salen and Zimmerman, 2003).

External factors, which players bring with them to the game have a big impact on the social relations during the play. Because it is nearly impossible to fully keep out all the pre-relationships outside the game.

Inside the game's social context each player has a role in the system. This is not about adopting a character in the story. Games are complex and have multiple layers. Players' roles can transform during the game, they are not strictly structured.

Sutton Smith generates a model to explain the roles of players. This model is used to analyse internally social roles. In the Table 15 there are three sections: "motive to play" explains what players do according to their roles within the core mechanics of the game. It explains the way of taking actions. Actor's and counteractor's roles are both important for the game experience.

| Role of actor | Motive of play | Role of counteractor |
|---|---|---|
| To overtake | Race | To stay ahead |
| To catch, tackle, tag | Chase | To outdistance, dodge or elude |
| To overcome a barrier, enter a guarded area, overpower a defense; to injure psychologically or otherwise | Attack | To defend an area or a person, to ward off, to be on guard |
| To take person, symbol | Capture | To avoid being take |
| To tease, taunt, lure; to mistake or unsuccessfully attack | Harassment | To see through, to move suddenly and punish an attacker, to bide time |
| To find by chance or clue | Search | To hide, to cover or mislead, to feign |
| To spring prisoner; to be savior | Rescue | To be jailer, to guard against escape |
| To tempt another forbidden action | Seduction | To resist, to have self-control |

**Table 15**: *Sutton-Smith Model to explain internal roles of players*

Sutton-Smith's model is useful to understand roles and what happens after that particular action, what will be the other players' roles. This model can be applied for multiple players' games and it explains many situations in a single game.

There is another model to explain external social roles inside the game. It is Bartle's model. These social roles come from the pre-existing relationships, outside from the gameplay. Although Bartle's research is based on one kind of game, the model can be applied to explain many social roles in different kind of games.

- Achievers: Players that want to be successful and achieve their goals. They use socializing to discover what others do and understand their strategies.

- Socializers: Players that play the game to build relationships in the first place. They always try to communicate, meet more people. For them, the more they can socialize the more valuable and meaningful the gameplay is.

- Explorers: Players that want to find secret points of the games, they seek for bugs, hidden points. For explorers, social relationships can be useful to learn different things from each other's, help them to discover more inside the game.

- Killers: Players that are interested in winning and attacking others. They socialize if it is necessary to take others down.

The difference between Bartle's Model and Sutton-Smith's Model is that Sutton-Smith's Model focuses on social mechanics inside the game. Bartle's model analyzes social roles in a larger context.

Social interaction and relationships build communities. These play communities are players who engage with each other during the gameplay. It can be valid for a single game, or bunch of games or maybe for a long-term. This type of social interaction depends on internally and externally levels of social play. The game itself and the play community of it has an interrelated relationship. Safe and trust are two essential elements for the social contract to build play communities. If players feel safe and trust each other they want to play more and experience the game freely. Players feel more comfortable to enter the magic circle and be more open to build relationships. Designers use rules to make people trust the game and feel safer during the game experience. Designers aim to ease the interaction and play the game in socialize way.

Metagaming is an important concept that explains the relationship between game and the outside world. "Meta" is a Latin word which means between, after, behind, above and about. So, metagaming means that the game beyond the game, the game's interplay with the outside world. Outside world includes all elements except the game itself. Social interactions, roles, macro-environment, etc. These elements make the game step out further, push the edges.

Garfield (2000) identified metagaming into four categories:

- Things that players bring to a game
- Things that players take away from a game
- Things that happens between games
- Things that happens during the game other than the game itself

First category is about the things that players bring to a game, it can be tangible or not. These can be operant or operand resources. The second category is the takeaways of the players from the game. These can be experiences, resources, knowledge, etc. These previous takeaways affect next experiences. What happens between games is the third category. They are also important as much as the things that happened during the game because they affect the player's roles, strategies for the next time. The last category includes diverse activities like gossip that players make during the game or the atmosphere of the room, etc. These elements influence a player's behaviors.

Metagame is an important concept that designers take into account to design powerful and successful games. It mostly depends on the social context of the games. Because of these characteristics it cannot be designed directly. But it enriches and elevates the meaningful play and level of satisfaction of the players.

# 2. Methodology

As it was already mentioned in the purpose section, in this research, the aim is to explore how customers interact with the service characteristics, what is the role of the customers and companies, designers in this case, during these so-called interactions and how can companies design and provide these interactions to improve the perceived experience. In order to get better insight, the focus has been shifted on the board game industry and several interviews have been conducted with five well-known, successful designers in the board game industry. This research aims to understand how designers deals with such design complexity in highly expanding board game industry Before the interviews, several designers' backgrounds, the genre of their board game designs, their radical ideas for the industry, and contribution to the co-creation of experience concept inside their games were analyzed carefully under the light of the initial literature search. According to these key characteristics, various designers were reached out. After several communication attempts, successful responses were received from five designers: Rob Daviau, Matt Leacock, Klaus-Jürgen Wrede, Steve Jackson, Jonathan Fryxelius.

Explicit attention was paid to the initial interview protocol to make sure the questions are focused on the research and that they do not contain leading-the-witness questions in order to achieve the best insight. Tailor-made open-ended questions were added to the interviews considering designers' backgrounds and games that affect co-creation of experience during gameplay. The transcripts of every single question and the most important points of these interviews have been summarized in the chapters below.

Since the interview questions are qualitative and open-ended, qualitative rigor in inductive research has been studied. The framework provided (Corley and Gioia, 2004) and reproduced by Gioia et al., 2013 have been taken into consideration while analyzing the survey data. Even though developing the data structure is important, it should be noted that it can only investigate a static process rather than a motion picture of the informants' experiences and insights. Therefore, a data structure should be

transformed into a grounded theory model that shows the dynamic relationships between the data and the theory.

## 2.1. Why Board Games?

In this research, experience co-creation and the role of the parts during the value creation processes have been analyzed in detail with a specific focus on the board-game industry.

Board games date back to very old times in history. These games are actually pre-historic and that means they were present even before a language was written. The first game assumed to be dice which is still an essential piece in most board games today. A series of small carved painted stones were found in a grave at Başur Höyük, Siirt, Turkey. These pieces are the earliest gaming pieces ever found dating back to 5000 B.C from the Early Bronze Age. Other various board game pieces were found in different years from different cultures and religions.



**Picture 1**: *The picture of an ancient board game pieces*

The board game industry has seen a renaissance in recent years and is expected to carry on growing further. Within the past few years, board-games have gone through enormous growth. The market is worth over $9.27 billion and is expected to reach $10.1 by 2021 according to board games market value data on Statista. Industry

forecasters predict the global board game market will be worth more than $12 billion by 2023. Google Trends also shows a similar upward trend in the searches over the last 5 years.

**Global board games market value from 2017 to 2023**
*(in billion U.S. dollars)*

| | | 7.16 | 7.8 | 8.5 | 9.27 | 10.1 | 11.01 | 12 |
|---|---|---|---|---|---|---|---|---|

2017* 2018* 2019* 2020* 2021* 2022* 2023**
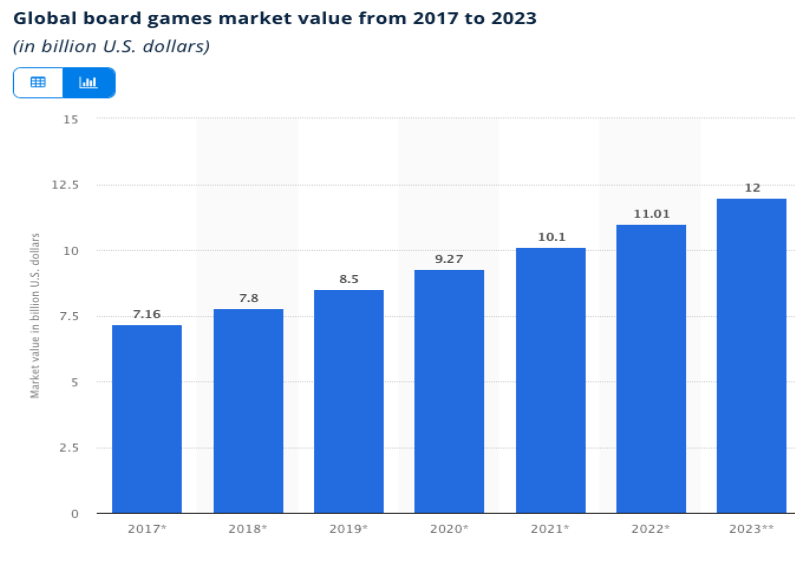
**Figure 25**: *Global board games market value from 2017 to 2023 by statista.com*

Why has the board-game industry followed an increasing path during the last few years? Board-games are popular for numerous reasons. Formerly, the only way to find board-games was by going into a local store or exchanging games with a friend but nowadays there are a lot of different ways to find out about the games. The internet and digitalization made it so much easier for players to find relevant information about the games and to find other players with similar interests. There are now several platforms that enable players to discuss, share, and get recommendations about games. Board game players build communities, tournaments thanks to these digital platforms. Additionally, there are various channels on YouTube where players share their experiences, how-to videos, and gameplay sessions.

Crowdfunding is another important point that makes it possible for more games to be published by new game designers. Campaigns on crowdfunding platforms such as Kickstarter help spreading awareness of the games and huge impact in the industry growth. Players have the opportunity to support the board games that they want to play.

Societal changes in the communities also affect the ongoing trend of board-games. The generation is changing. The children of the previous era become parents and now they are the people who played board-games before leading their children into tabletop games. Another change is about how the public sees geeks and fits the stereotype they have in their heads. In recent years, being a geek has wider acceptance in the community. Celebrities like Wil Wheaton, from Tabletop on Youtube, and Vin Diesel who is a board-game fan help to change the general perspective on being a geek.

Most importantly, real human connection, social interaction, and tangible experience are the vital points to understand why the board-game industry has seen such a growth in a few years. Even though digitalization makes it easier to connect, people still want real human connections, real experiences and they want to interact socially while playing such a game. Players can experience unique moments and interactions even if the players and the game are the same. The output depends on the actions that players take while playing it. Games offer a magic circle to the players; they experience it while playing the game. This is the main focus of our research as we seek a bona fide understanding of how to design and provide such products as platforms that will lead to experience co-creation. Games lie at the intersection between products and services. Additionally, board-game can be accepted as a service that is offered by a company rather than a product. Therefore, board-games and the new service concepts that were studied in the literature search can be accepted directly related.

## 2.2. Interviews

In order to gain a comprehensive understanding of co-creating activities with different perspectives, various game designers were communicated according to their background, signature game, and their contributions to the radical innovations in the industry. Five designers were interviewed via video conference and email.

The interviews were designed by paying explicit attention to our research topic and the questions were selected in the light of our literature search. They were conducted in order to receive a deeper insight and knowledge into co-creation. Every interview had key questions about the role of designers, the role of customers, game mechanics,

and themes and tailor-made questions according to the designer's profile. The term radical service innovation, small design details that enhance the experience of co-creation, the importance of interaction between players were also examined with indirect questions. The initial interview protocol was carefully created without having leading-the-witness questions. Later, the questions were revised as the research progressed. During the interview, the interviewees were followed without strict guidance in order to achieve the best results and insights. The interviews consisted of questions that were qualitative and open-ended to avoid misleading and maximize the information flow.

## 2.2.1. Designers

**Rob Daviau**



**Picture 2***: Rob Daviau*

Rob Daviau is a well-known American game designer from Western Massachusetts. He was a visiting lecturer at Massachusetts Institute of Technology, Carnegie Mellon University, and New York University on game design. He was also a visiting professor at Hampshire College. He also has contributed articles to various books on game design and has been a speaker at dozens of conferences. He is in the industry for 20 years and he has worked on over 80 published games. His wife, Lindsay Daviau is also a veteran in the board game industry with production, prototype development, play testing, graphic design, and art direction background.

Rob was at Hasbro Games for 14 years where he worked on various games such as Risk 2210 AD, Axis & Allies Pacific, Betrayal at House on the Hill, Star Wars Epic Duels, Heroscape, Clue DVD, Clue Harry Potter, Risk Star Wars, Risk Lord of the Rings, and many more. He also worked as an editor of Trivial Pursuit for 8 years and ran the editorial department for a year.

He is well-known for creating legacy board gaming. Risk Legacy was his last game with Hasbro and this unique game led his career into a solo career whose games include Pandemic Legacy (Seasons 1,2, and the upcoming 3), Seafall, Mountains of Madness, Ultimate Werewolf Legacy, the upcoming Ship Shape (Calliope Games) and Betrayal Legacy.

A legacy game is a type of board-game which is designed, through different mechanics, to change forever over the course of a series of gameplay sessions. This type of game breaks certain outcomes that players expect from classic board games. The physical changes that occur during the gameplay are permanent and they are based on gameplay sessions and players' choices. Legacy games were a radical innovation in the industry since it completely changed the way one plays a board game and these types of games are important for our research since it provides unique experiences to each customer.

According to the designer, a legacy game is a game that some of the actions that take place in one game carry forward to future games, permanently altering the game. So, players may change the game component, may change the game rules, things may come out, things may get added and there is a transformation from game to game so that starting immediately on the second game players play, the game two is different from other people's game two. Everyone starts at the same place and then it goes out from there. So that is mechanically what a legacy game is as these changes are permanent.

Rob has been working at Restoration Games as the Chief Restoration Officer since 2016. Restoration Games is a publisher that aims to bring out-of-print board games

back to life. Rob has published Downforce, Stop Thief!, Indulgence, Dinosaur Tea Party, and Fireball Island under the name of Restoration Games.

**Matt Leacock**



**Picture 3**: *Matt Leacock*

Matt Leacock is a 49-year-old American game designer from Minnesota, United States. He specializes in family games and has become known for cooperative games with the huge success of Pandemic and Forbidden Island.

Originally, he worked as a developer on social media, and he was a user experience designer working mainly in community and communications products for companies such as Apple, AOL, Netscape, Yahoo!, and Sococo. He started his game design career during his ongoing career in these companies and designed various games in his free time. In 2014, he switched to designing board games full time. Matt Leacock and his point of view as a user experience designer are eminently important for our research since he has a professional career in the industry before designing such games.

His portfolio includes games such as Pandemic, Roll Through the Ages, Forbidden Island, Forbidden Desert, Pandemic Legacy, Thunderbirds, Knit Wit, Space Escape, Forbidden Sky. After his huge success on Pandemic and Forbidden Island, he collaboratively designed Pandemic Legacy with Rob Daviau. Pandemic Legacy was a huge success and has been rated very highly among board gamers. He has been

donating 5% of Pandemic products directly to Doctors Without Borders / Medecins Sans Frontieres for their work in medical aid. He also raised $50,000 for the Ebola crisis in Western Africa with Pandemic players around the world in 2014.

He had been awarded for his various games. Pandemic and Roll Through the Ages have been awarded as the Family Game of the Year by Games Magazine and nominated for Spiel des Jahres. Forbidden Island and Forbidden Desert have been awarded as the Mensa Select and Golden Geek Best Children's Board Game.

**Klaus-Jürgen Wrede**



Picture 4: *Klaus-Jürgen Wrede*

Klaus-Jürgen Wrede is a board game designer who was born in 1963 in Meschede, Germany. He is originally a music and theology teacher in Arnsberg and attended college in Cologne.

He decided to choose the board game designer path in his career while visiting a game fair in Essen in 1989. His occasional gaming passion has turned into something different. He started to develop and implement his own game ideas after the game fair.

His career debut as a designer was Carcassonne which was published in 2001. The game was designed by Mr. Wrede while on a vacation. Carcassonne has become one

of the most popular games at BoardGameGeek in which thousands of board games are present. The game was selected as the Game of the Year and received the German Game Award in the same year. Other international awards were given to the designer as the success of the game kept increasing. In the meantime, various extensions and other independent Carcassonne games have been created. The game of the Year jury has included his other games on its recommendation list.

He is also known for other games such as The Ark of the Covenant, Carcassonne: The City, The downfall of Pompeii, Mesopotamia, Venice, Anasazi, Crown & Sword, The Fugger, Albion, Heroes of the Three Kingdoms, Rapa Nui, The Architects of the Colosseum, Bali.

Klaus-Jürgen Wrede is an important designer for our research as he successfully turns very simple puzzle mechanics into a game that has a huge story and history embedded in. As can be understood from the names of his games, he is interested in transforming historical topics into family-friendly games. The insights from the designer can lead to vital points for our research on the experience of co-creation as he lets players dive into another world in another time zone with simple game mechanics.

**Steve Jackson**

Steven Jackson is an American game designer who was born in 1953. He was a resident of Baker College before switching to Sid Richardson College. For a short period of time, he attended the UT Law School but left to start his career as a game designer.

In the early stages of his career, he started working for Metagaming Concepts where he developed "Monsters! Monsters!" roleplaying game based on two different games. His first unique design for the company was Ogre, followed by G.E.V. These games were set in the same futuristic universe that is created by Jackson.

In the 1980s, Steve Jackson founded his game design company which is called Steve Jackson Games. They have published different board games such as Raid on Iran, One-Page Bulge, Car Wars, Undead, Illuminati, Man to Man, Battlesuit, Shockwave, Star Fist, Coup, Hacker, Munchkin, Chez Dork, Strange Synergy, Ninja Burger, etc. His most successful games are GURPS, Car Wars, and Munchkin. With the success of his game Illuminati, it became the company's first million-dollar preship.

Jackson has received over a vast amount of Origin Awards. In 1982, he became the youngest board game designer to be included in the Origins Awards Hall of Fame. Especially his games GURPS and Munchkin were named to the Origins Hall of Fame.

In 2011, he was featured in Famous Game Designers Playing Card Deck as the king of clubs.

Steve Jackson is well-known for his role-playing games. He does believe that getting in a role while playing completely changes the experience for all players. He also has a strong sense of humor that directly affects his games, the way he tells stories, and the roles he designs for players. He provides a new aspect to the experience of co-creation and the insights are valuable for our research.

**Jonathan Fryxelius**



Picture 6: *Jonathan Fryxelius*

Jonathan Fryxelius is a Swedish game designer and 14th child in one of Sweden's largest families. He is 29 years old and father of 3. He is originally a computer science graduate from Karlstad University.

He, with his large family, has been in board games for a long time. His father created various board games as learning tools for the whole family. Later, they founded the FryxGames as five brothers. They have different points of view over the game design which directly affects the games they publish. They also published some games that include old ideas created by their father back in the 1980s.

Fryxgames are known for the games After the Virus, Wilderness, Space Stations, Brawling Barons, Fleets - The Pleiad Conflict, and most importantly Terraforming

Mars. They have been awarded by various institutions for Terraforming Mars which includes Spiel der Spiele Hit, Jogo do Ano Nominee, As d'Or - Jeu de l'Annêe Expert Winner, Guldbrikken Best Expert Game Winner, etc. The game sits at 3rd place in the top board games list.

Jonathan Fryxelius provided us new aspects of view on how simple game mechanics can be transformed into an exciting journey with storytelling and how players can feel delighted regardless of the outcome.

## 2.3. Insights

**Rob Daviau**

According to Rob Daviau, the reason why legacy was so successful is that the players were committed much more to the game than normal boardgames. While testing his raw concept on legacy games with his colleagues at Hasbro, play-testers kept playing the game over and over again even though it was so late. Rob Daviau said okay we got something here. People wanted to see what comes next as the gameplay goes.

Storytelling and roleplaying were the key points to engage people during the game. Additionally, doing these things with the legacy type of games directly affected the outcome.

Legacy games can be seen as a radical innovation in the board game industry. Because they offered a totally new experience for their players. The most characteristic feature is that players are able to have this experience just for once in legacy games. This affects and evokes the players' emotions.

Matt Leacock and Rob Daviau set up different acts in order to provide the emotional climaxes to the game. The first act is the big moment, a big obstacle for example zombies! Then, in the middle act, you spend your time looking for pieces to solve and cure the obstacle. In the last act, you solve the problem. After defeating the obstacle, you get another big obstacle that you need to get rid of. You need new tools, new ways to keep it going. These types of climaxes increase the engagement of players with

each other. Up and downs in the emotions of the players keep players more focused on the game and, the game and the experience become more and more unique for every single gameplay. The uniqueness of the experience increases the value of the game. It becomes much more than a simple box or simple gameplay since the players are much more invested and committed to the game. Players ascribe a meaning to the gaming experience and the time they dedicated to it.

Designers, most of the time, imagine themselves as movie-writers to catch the right story so that the players can feel much more involved. Do the players think the person on the cards is the designers? Rob Daviau says the designers do most of the writing story and then there are other mechanics like opening new cards, new disease, etc. After the initial storytelling, actually, the players write the rest of the story. This gives players an open space and the ability to shape their experience.

Designers need to leave some space for players to write their own stories. Another important part is the symbolism in our opinion. As Daviau mentioned during the interview "I've seen this movie, I've seen this TV Show, I've been here!" Players need to find something in the gameplay from the real world they live in. and they need to be involved. They name the characters, they decide which cities are burning, they react to the story during the gameplay. Another key concept for the legacy game's ideation phase is role-playing. Legacy games are carrying the traces of role-playing games. During the whole experience, the campaign -within the gaming jargon-, from beginning to end, for example, 12-24 games in Pandemic Legacy, players follow the same story that is being affected by every move of the players. They live the story more deeply and more involved with it. People embrace their roles and act like one of the characters. Legacy games and role-playing methods give game designers an opportunity to tell a complete story.

The job of the designer is to give all pieces to the players so that they can write their own story. This is the biggest part of the value. Every decision that is made by players affects the later one and overall game flow. As a consequence, players shape their experience and because of this feature, each game becomes unique. In other words, they become co-creators of the game.

Rob Daviau said "… people like a story, that's quite human. Humans have been telling stories for a long time, whether they're painting pictures on a cave or coming up with their myths for their tribe" Board games also tell a story within the game and the players are also there to direct this story while playing in it.

**Matt Leacock**

Matt Leacock worked as a UX Designer at Yahoo. Being a UX designer affects the design process of his games. Using the methods of UX design can improve the gaming experience.

Thanks to his design background he believes that in order to design a successful board game he should pay attention to the testing phase. Also, playtesting without any intervention is a key factor while designing. Being more objective and separate from the play-testers are examples of rigorous methods that picked up from the UX applications.

Designing a game is like, setting up a system and then, let the players enter it and manipulate however they want. Matt Leacock mentioned that he tries not to hold the players' hands too much to provide freedom. I am providing a system and encouraging players to jump into it, fully expecting that the players are going to fail and let them create their own models for how to play it well. Again here, we can clearly say that the freedom of the players is as important as the rules. We need to provide a platform, a system rather than strict guidelines so that the players can roam freely to create their own experience. The designer's job is to provide this system rather than telling specifically how to play it better. He sees himself as a service provider. Leacock believes that each player creates his/her own experience.

A simple design detail can change the overall gaming experience a lot. Matt Leacock said that he needed to write everything his play-testers said down to remember them all. It is very important to jot them down, he said. Another example from Pandemic is that when Mr. Leacock decided to use a single deck of cards as the player deck and the infection deck, he thought that was really elegant, simple, and wonderful but then

when he watched people filed to discard the cars into two separate discard piles. They were making mistakes constantly. So, it is important to give explicit attention to the aforementioned small details to enhance the gameplay experience.

In any kind of game, you want every player to be involved most of the time. One of the benefits of co-op games is that everybody can be involved all the time because all the decisions affect everybody, and conversations are a great way to do that. But it comes at some cost. If every player is on the same page with the same motivations, the game itself can feel like a solitaire effort. So, we need to provide some autonomy to the players, we need to provide some freedom even though it is cooperative.

It is easier to design cooperative games for Matt Leacock. He mentioned that it is easier to get inside of players while playtesting since they are in conservation. In competitive games, it is harder to understand the players' emotions and harder to get inside their heads because they are not talking about the experience all the time.

In order to provide an enjoyable experience, Matt Leacock creates a kind of wave in his games to send people on an emotional journey of ups and downs. Creating these climaxes lets players be more engaged in the story and to the game. Tension and relief points are important while designing. We can provide this type of experience in any type of game by reaching intermediate goals throughout for example a competitive game.

In legacy games, the players are more invested because their decisions not only affect the current game, there are permanent effects on it for every subsequent game. Something that gets players hooked up for the game is giving them big obstacles. After a great struggle, giving them new tools to deal with them, new superpowers to use hooked up players. It feels like opening up Christmas presents but you never knew when you are going to be opening these new tools up. Another important thing is to make sure that the challenges were appropriate. Making it not too hard or too easy.

Matt Leacock made a collaboration with Rob Daviau, the creator of the legacy games mechanics, in 2015 and designed Pandemic Legacy. This game was like a disruption

in the board game industry. It draws the attention of players in both ways, negative and positive. Legacy games have different game mechanics and require developing more strategy than regular board games since players have only one chance to play it and each move affects all the experience without the ability to draw it back. Also, Leacock mentioned the fact that the stakes being so high in the legacy games since you have to destroy the elements of the game. It was a shocking move for him as well. He also mentioned a very interesting point for our research. Players are basically playing with social norms. So, knowing that this is a one-way journey and there is no going back, the emotions are being pumped up. Players feel more engaged, try to develop more strategies, interact with each other to make the best decision, and all these factors help them to feel committed to the story and the game itself. This leads to an exciting experience that possibly affects co-creation directly. The gameplay could have been optimized for replay, but it would be a different type of experience and story.

There were debates about the worthiness of the game since you are basically destroying the game. But normally, a player buys a game and plays it a few times. In legacy games, players are much more incentivized to go through all possible play-throughs. Games on your shelves are like your library. It is like a story, here is what I like to play, here's what I am playing, etc.

Matt Leacock explained "why" people love to play it. He mentioned getting together with other people for a greater good such as saving humanity. It is all up to the players. The game lets people get into a completely different character for four hours and it gives you an opportunity to try to save the world.

Knit Wit is one of the most radical games of Matt Leacock in terms of material choice and mechanics of the game. For the Knit Wit, he designed experience-based operand resources such as physical, tangible components that players can actually interact with them. They were so successful that they had fun playing. What did not really satisfy people was the loose rules since the group was judging what is good and bad. Again, the importance of the rules is obvious here. We need to provide a set of rules but at the same time, we need to provide some sort of freedom to the player so that they can focus on the gameplay rather than strict guidelines.

**Klaus-Jürgen Wrede**

Klaus-Jürgen Wrede designed theme-focused games. He prefers themes based on his experiences. For example, in Carcassonne, he designed a historical village experience for the players because once he went on a trip to France and he was fascinated by this historical castle and its mystical environment. He wanted his players to live that historical experience too and he started to design Carcassonne. He believes that the key to his success is his ability to make empathy with his players. He said, "I won't design anything that I won't play.". He puts his heart and emotions into his game concepts.

Klaus Wrede loves to offer dilemma-mechanics. You are offering something, but the offered naturals will get worthier in the hands of players. Players should be active; they must decide and make their way through a dilemma. In order to keep players active, he uses dilemma-mechanic as a tool during his board-game design processes.

During the testing phase and especially while presenting a new game to the publisher, the right gameplay is crucial since a single small mistake can know the whole game out!

The frustration while playing the game is low when you build something together. According to Wrede, constructive experience is very strong and describes the success of cooperative games.

The experience during gameplay is not only linked to the genre of the game according to Wrede. The genre is indeed very important, but it is only for the atmosphere and feelings. The most important point here is the temperament of the players. You can play Carcassonne peacefully and cooperatively even though it is not a cooperative game, or you can play very aggressively to win. With the light of his words, we can say that he truly believes in the importance of players' resources that they put into the game while they are playing. These resources are their time, background, ability to learn, social norms, education, etc.

In the interview that he made with "Board game Components" in 2017, he talked about his games and possible future projects. And he mentioned something can be answer to our question which is "What is the reason for feeling satisfied after the gaming experience even if you win or lose?". He said: "Die Baumeister des Colosseum, started with the idea of building something great, which looks very nice at the end of the game. I very much like building something together. You create together and each player adds something in his turn. This is the same in "Carcassonne". You build together a landscape and every game it looks other in the end."

Wrede stated that building games with many rules is easy, the difficulty is to bring down the mechanic to an exciting point so that players can enjoy the game with fewer rules. Fewer rules mean more focus on the gameplay rather than rules. The lightness of the game and the rules, having to decide strategically every turn and a little bit of luck with a building something together mindset are the key points of the success of Carcassonne.

People like to be involved. They like to have emotions and fun and to dive a little into another world. So, the emotions are the key factor here with the roleplaying. In order to increase the emotions, the feeling of diving into another world, Wrede, most of the time chooses to use historic themes. He is using these themes not only to increase the emotions but also because of the fact that he actually loves these historic places with the stories behind.

https://boardgamecomponents.wordpress.com/2017/03/19/interview-with-klaus-jurgen-wrede/

**Steve Jackson**

Steve Jackson has a role-playing heritage. He took a lot of inspiration from role-playing games while designing his games.

According to Jackson, while designing a board game, the key point to success is the momentum of the gameplay. There are no permanent alliances, no permanent enmity. Players openly and blatantly follow their own interest at almost every moment. There is certain freedom for you to behave in any way. Despite being a "light" game, the original set and other add-ons are thoroughly tested for balance. Funny and light does not mean sloppy work. The combination of cards invites the players to be creative and imaginative. These are the success factors of the game.

One of the most successful games of Jackson is Munchkin. He explained the success of Munchkin with interaction. Fostering interaction which is obvious in Munchkin is vital for the game and gameplay experience to be enjoyable. Another important contribution of the interaction is that players have better experience even if it is not their turn.

Another important factor that directly affects the experience is to make the rules easy and obvious enough for players to direct the focus on the gameplay rather than complex guidelines. This is a tricky balance for designers. Because rules are the tools of designers to shape players' gaming experience even not being there. For example, in Munchkin, there are keywords written on the cards that describe if the card is "Race," "Class," etc. These are necessary, but they ease the learning process of the new players. Anything that makes learning easier automatically makes it easier to teach the game to others, which is vital both for experience and the success of the game. Easier rules to recognize and follow easily can increase the playability of the game for the first time and also replayability.

Personalization is important even in board-games. At Munchkin's add-on packages he delivered blank cards.  Leaving some blank cards for players to personalize their games is important and it might encourage more people to actually design their own games. This point directly affects the gameplay since it provides uniqueness to every

session while having the potential to affect the whole industry. This can be a great example of co-creation of experience.

Roleplaying is again crucial for the gameplay experience. People do like to dive into another world, another character, another theme. A game can be described as successful when the game manages to snatch players from the real world into a dystopia where they can act like somebody else or something else. For example, in Steve Jackson's words, Monopoly is much more fun when he let himself fully into the role of the greed-crazed real estate speculator and heartless landlord. This role-playing element can really elevate the gaming experience. It allows players to be more involved and engaged. In our opinion as researchers, emotions and roleplaying might be the core of research on co-creation.

**Jonathan Fryxelius**

During the interview, Jonathan analyzed Euro-style board games. He said that games are about basically, for example, putting some stone bricks in a specific fractal pattern or putting patches on a piece of the puzzle but why would that be interesting? The designers should make these simple game mechanics be about something from real-world, daily life. Fryxelius said designers always want to tell a story using a game. For Terraforming Mars, which was one of the most successful games that his team designed, they felt like there is no such game and they imagined a game where you sit back and feel like you are changing a planet! He said that themes make games more memorable. Their game derived from this theme. The mechanics were added later. But it is not like that all the time for Jonathan Fryxelius, the components and mechanics inspire him with the theme. As a team, they use game mechanics as a tool to enhance the gaming experience and the theme. He believes that this helps their games to stand-out in this industry and makes players believe in more to the theme.

He gave an example to the topic that he mentioned above with a board game called Kitchen Rush from Artipia Games. In this game designers used a "sand-timer". It was actually a tool from the real world, but designers took this tool as a game component and used it in a completely innovative way. Designers should find ways to use these

types of components that people already knew and provide them new experiences and new ways to use them differently.

People love games because of storytelling. He sees their team as storytellers. According to Jonathan, engagement is a crucial part of storytelling. Players need to feel engaged in the story. They need to feel like they are really in there, they are having an impact, feel like they are important, and they can decide the outcome! So, the theme is the important part here. Then, the game mechanic is important. It should be open enough for you to catch up. Additionally, the players should decide the outcome of the game. In Terraforming Mars, it does not matter if you lose or win, you are doing something for a greater good, you have done something important, you contributed to humanity! Replayability is another important aspect. The game should be re-playable many times without playing the same game over and over.

As Jacob said "If you can make the players feel like they had achieved something, they will not care as much if they win or lose"

The complexity of the game is another important point of success. There are two types of complexity. The one is where the people playing the game, but they do not understand. This is bad. The second one is that everybody knows how to play the game, but they do not know how to master it! Like chess, a game should be simple to learn but hard to master.

For Legacy games, Rob Daviau said that basically, you are breaking a few unwritten or unspoken contracts with the player. You are deciding how many times a player can play the game and you are deciding what to do with the component for example ripping cards etc. Another success factor of legacy games is the commitment. Since it's a limited-time experience, people tend to give explicit attention to the game and the experience becomes much denser.

According to Fryxelius, the gaming industry is dynamic. Producers and designers should react and answer current global trends and movements fast. In this way, they

would have a higher chance of success and engage players faster while answering trends.

The mixture is important. The theme, the mechanics, and probably the emotions. This is a really interesting point. According to the literature read on this subject says there is always a third point in the mix which is the most important one since it engages people with an object or a story. We have instrumentality, aesthetic, and lastly the symbolism. We can relate this emotion point in the mixture to the symbolism.

# 3. Findings

As mentioned before, our study focuses on the board game industry in order to define a systematic approach to the experience co-creation and examine the roles of the parties during the co-creating activities. Thus, 5 very well-known and successful designers from the board game industry have been interviewed. These designers have been chosen according to various determinants such as their availability, background, favorite genre, contribution to the experience co-creation. The interview has been designed under explicit guidelines in order to get better insights from the industry professionals and informants (designers in our case) have been followed through the interview in order to learn more from their experiences.

After all interviews were conducted, the transcripts of these interviews have been written and summarized in the previous sections with the most important points of the interviews for our research. Since our interviews are qualitative research, we need a broader and better approach in order to capture the real insights as Einstein put it: "Not everything that can be counted counts, and not everything that counts can be counted". Thus, qualitative research needs an approach for a systematic presentation and the studies of Gioia et al. (2013) have been adopted.

According to Gioia et al. (2013), there is a huge need for some new tools since the wrong tools are focusing too much on refining existing constructs for gaining bona fide understandings and insights from these interviews. Therefore, a new concept has been discovered and developed that might be better at capturing the deeper insights.

In this approach, there are some assumptions in addition to the basic assumptions about social constructions. The first assumption is that informants are accepted as "knowledgeable agents" in the sense that they know what they want to do and can explain their thoughts, intentions, and actions. This assumption results in the sense that it vanguards the informants' perception and casts researchers in a role that gives a competent account of the informant's experience. Researchers should not be imposing any constructs or theories on the informants. So, explicit attention was given to the interview protocol so that we do not use existing theory and terminology in order

not to miss the key aspects of their sensemaking by imposing our foretell understandings on the subject.

There is also a second assumption that also researchers are pretty knowledgeable people too that they can examine the patterns in the data, uncover insights and concepts that might escape the awareness of the informants. These insights and concepts have been formulated in theoretically germane terms.

The tussle and debate between the authors in the literature of qualitative research have resulted in a systematic presentation of the approach. In this approach, the interviews have been analyzed in two-phases. (Van Maanen, 1979). This two-phased approach takes informants' and researchers' voices together which allows not only a qualitatively rigorous demonstration of the links between data and new concepts but also allows to uncover insights that define the quality of qualitative research.

In the 1st-order analysis, there is an effort to adhere to the informant terms without distilling categories. In other words, the designers' sayings and words have been written down without a strict condensing of the categories.

Here is our first stage of 1st-order analysis without separating diverse categories.

- Mostly, I develop a game from the theme and not as an abstract mechanism.
- Players experience another world, an historic event or natural scene through themes
- We always start with the theme. We always start as storytellers. We want to tell you a story using a game, or we want ourselves to experience a story.
- I think the players usually also like the theme that we are telling because we are telling a story and if you like the story or even more particularly if you feel engaged in the story.
- I think that when people play our game, it is like being a part of a story. And this is quite a strong experience. You get engaged in the game.
- Humans have been telling stories for a long time, whether they are painting pictures in a cave or coming up with their myths for their tribe.

- Monopoly is more fun if you let yourself fully into the role of the greed-crazed real estate speculator and heartless landlord.
- We use these mechanics to tell a story to make you feel like you are a part of a TV show or a movie or a comic book or something like that.
- The player must feel the dilemma and must act. He or she must be active.
- If it is a constructive and common experience, there is no angriness and frustration.
- It is easy to design a game with many rules and add here and there some rules for special cases. But it is more difficult to bring down the mechanic to an exciting point - so that a game is exciting with small rules and you can focus on the game and not on the rules.
- The frustration is not so high if you develop something constructively.
- The people like the lightness of the game and the rules - but to have decisions in every turn on one side. and the deepness and strategic on the other combination for success.
- The very famous game "Azul" is about putting these stone bricks in a specific fractal pattern or something.
- A game should be simple to learn but should be hard to fully grasp and you should not ask how it works.
- A little bit Guidance for players inside the game is essential, otherwise, the game would break, and players would make mistakes.
- Rules to shape these unpredictable moves.
- A competitive game, I watched the video or, you know, I am in the room watching people and, you know, it is two people staring at a board silently. It is like, I do not know, you know, what their emotional state is. It is harder for me to understand what is going on inside their heads because they are not talking about the experience all the time.
- There is a period where they can kind of get a handle on things. And then there is a little bit more relief. And then the tension ramps up again. And all the while, it is kind of scaling up until you get to this critical point where, you know, you find the four cures or, you know, the world goes haywire. And I think that kind of story structure really helps if everything is just flatter, you are going to have less engagement.

- We had to make sure that the challenges were appropriate.
- The game would have its own arc. But then the whole season had an arc as well. So, we tried to have this ramping tension throughout the entire campaign.
- Despite being a "light" game, the original set and all follow-ons are thoroughly tested for balance.
- Anything that makes learning easier automatically makes it easier to teach the game to friends - which is a vital part of the experience.
- If you build something together, then you may want to win and need certain tiles or cards, but there is the experience of doing something together.
- Die Baumeister des Colosseum started with the idea of building something great, which looks very nice at the end of the game.
- In Terraforming Mars since you feel like you are contributing to humanity by terraforming the planet, it does not really matter if you win or lose for a lot of people. You still have a really good time. You contributed to humanity and you feel like you have done something important.
- If you can make the players feel like there, they are achieving something, or they are accomplishing something and that is rewarding. Then they will have less focus on the actual outcome of the game.
- The game gives you an opportunity to try to save the world. I guess what I like to say and do it together.
- If everybody is on the same page with all the same motivations, it can feel like a solitaire effort.
- You create kind of waves. So, you send people on an emotional journey of ups and downs
- Relaxation and tension are important, add twists to the scenario to make it exciting and surprising.
- Different types of experience and different types of stories. So, for this one, with the nature of the storytelling where there is a one-way journey, there is no going back. The stakes are high. It seemed like we could make it much more traumatic. And that frees you to do things like, you know, you must destroy this card.
- The Christmas present feeling in each game is open and explore it.

- You set up the problem and you have this big moment where now there are zombies and then you learn how to solve the problem and you spend a middle act looking for pieces to solve it. And then in the last act, you solve the problem.
- The combinations of cards are silly and invite the player to imagine.
- Many of the cards, by design, can be used in "perverse" manners - attacking yourself with a monster to get another level, for instance. This also makes people laugh.
- The momentum of the game is important.
- The thing that fascinated me here is that they find a common game component like the sand timer, and they do something completely different with it, something that you have never seen before.
- I really want to come up with ideas to take something with people, they know what this is. But you should use it in more ways, in new ways.
- We are always using randomness because we think randomness is a good part of our normal experience. A lot of the things we experience in real life are out of our control.
- The game is like a sponge - open for the temperaments and characters of the people.
- I just kind of set up a system and then let the players enter it and then manipulate however they want.
- We do not want it to be so much on rails that you are just playing out the story like a choose your own adventure.
- Here is the system. Jump into it and see what you can do and fully expect that the players are going to fail and that they must create their own models for how to play it well.
- The designers give you all the pieces to the story and they will write their own stories
- There is a certain freedom when a game permits you to behave that way. They follow their own interest.
- Leaving some blank cards are important because Players do like to personalize their games.

As the research progresses, connections and differences among the firstly drafted sentences are studied. That progress eventually reduced the relevant categories to a more convenient number. Then, labels or phrasal descriptors for these categories have been given retaining informants' terms.

In this 2nd-order analysis, the focus was more on the attempt to distill categories that help describe and explain the factors that drive experience co-creation. The informants' sayings and especially terms have transformed into themes and concepts. After the 2nd-order analysis has been conducted, the possibility to distill the emergent concepts even further into 2nd-order "aggregate dimensions."

These full sets of 1st-order terms, 2nd-order themes, and aggregate dimensions are ready, they foreground the basis for building a data structure and perhaps the pivotal step in our entire research approach. This data structure helps to configure the data into a sensible visual aid. Additionally, it also provides a graphic demonstration of how the interviews have progressed from raw data to terms and concepts in conducting the analyses. These are the key components of demonstrating rigor in qualitative research (Pratt, 2008; Tracy, 2010).
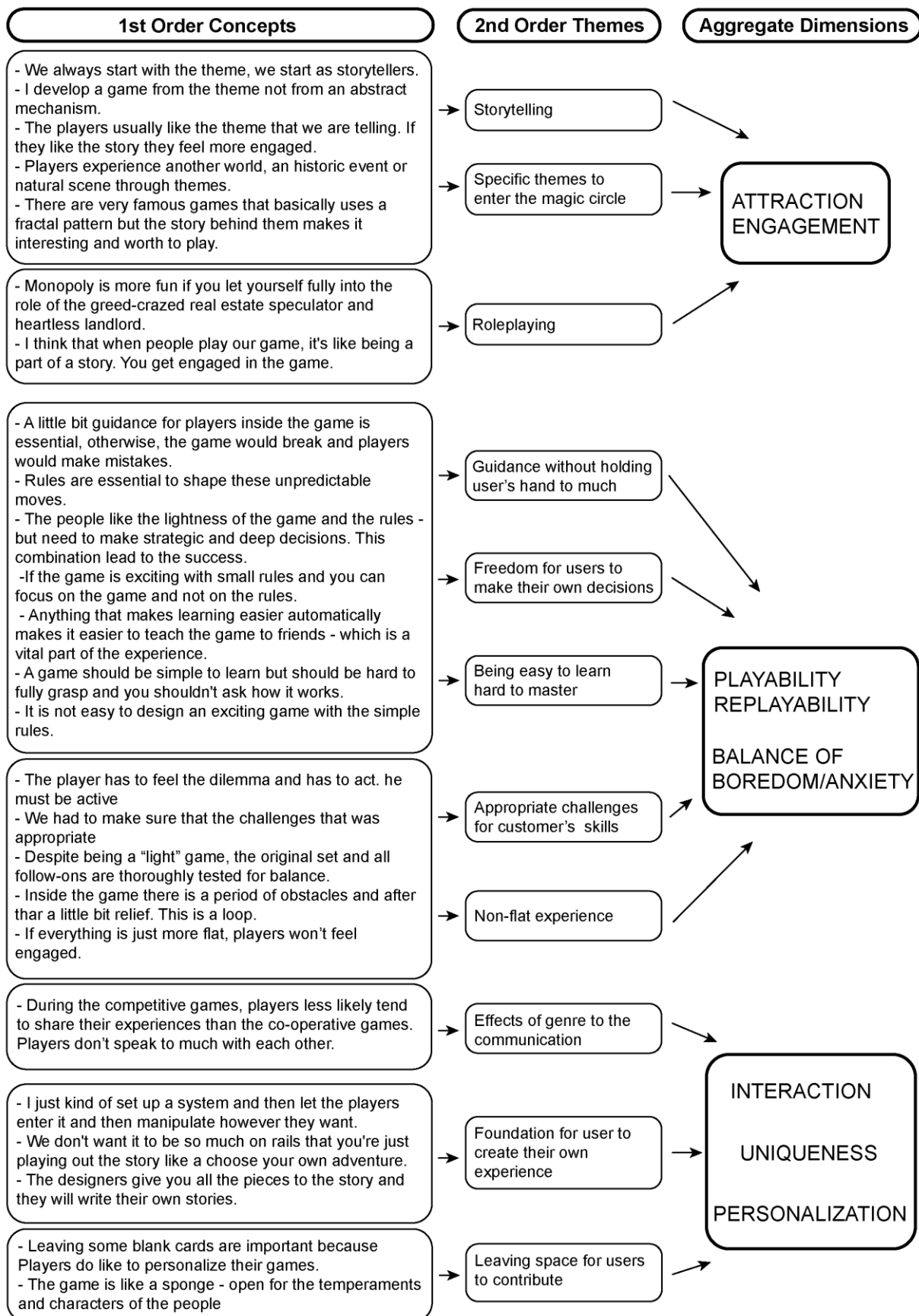
- We always start with the theme, we start as storytellers.
- I develop a game from the theme not from an abstract mechanism.
- The players usually like the theme that we are telling. If they like the story they feel more engaged.
- Players experience another world, an historic event or natural scene through themes.
- There are very famous games that basically uses a fractal pattern but the story behind them makes it interesting and worth to play.

Storytelling

Specific themes to enter the magic circle

- Monopoly is more fun if you let yourself fully into the role of the greed-crazed real estate speculator and heartless landlord.
- I think that when people play our game, it's like being a part of a story. You get engaged in the game.

Roleplaying

ATTRACTION ENGAGEMENT

- A little bit guidance for players inside the game is essential, otherwise, the game would break and players would make mistakes.
- Rules are essential to shape these unpredictable moves.
- The people like the lightness of the game and the rules - but need to make strategic and deep decisions. This combination lead to the success.
- If the game is exciting with small rules and you can focus on the game and not on the rules.
- Anything that makes learning easier automatically makes it easier to teach the game to friends - which is a vital part of the experience.
- A game should be simple to learn but should be hard to fully grasp and you shouldn't ask how it works.
- It is not easy to design an exciting game with the simple rules.

Guidance without holding user's hand to much

Freedom for users to make their own decisions

Being easy to learn hard to master

- The player has to feel the dilemma and has to act. he must be active
- We had to make sure that the challenges that was appropriate
- Despite being a "light" game, the original set and all follow-ons are thoroughly tested for balance.
- Inside the game there is a period of obstacles and after thar a little bit relief. This is a loop.
- If everything is just more flat, players won't feel engaged.

Appropriate challenges for customer's skills

Non-flat experience

PLAYABILITY REPLAYABILITY

BALANCE OF BOREDOM/ANXIETY

- During the competitive games, players less likely tend to share their experiences than the co-operative games. Players don't speak to much with each other.

Effects of genre to the communication

- I just kind of set up a system and then let the players enter it and then manipulate however they want.
- We don't want it to be so much on rails that you're just playing out the story like a choose your own adventure.
- The designers give you all the pieces to the story and they will write their own stories.

Foundation for user to create their own experience

INTERACTION

UNIQUENESS

PERSONALIZATION

- Leaving some blank cards are important because Players do like to personalize their games.
- The game is like a sponge - open for the temperaments and characters of the people

Leaving space for users to contribute

**Figure 26**: *The analysis of the interviews from 1st order concepts to aggregated dimensions*
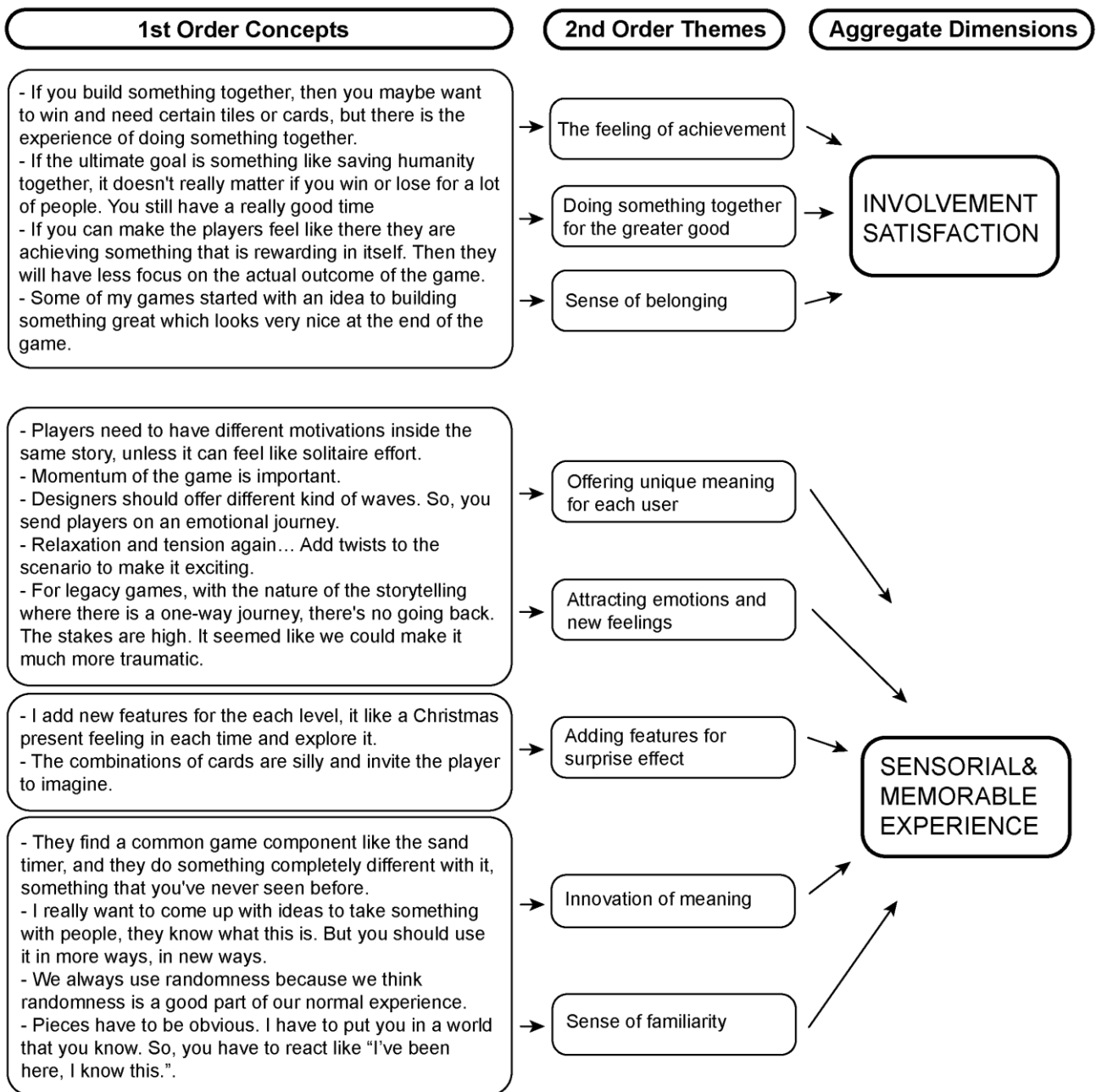
**Figure 27**: *The analysis of the interviews from 1st order concepts to aggregated dimensions*

Figure 26 and 27, represents the analysis of our interviews using the methodology of Gioia et al. (2013). As a second step of identifying the 1st Order Concept, designers' saying and words during the interviews have been analyzed and germane sentences are written down and are grouped with frames. This step is essential to handle diverse answers for the open-ended questions.

All the designers during the interviews talked about themes, the story they offered to the players. These are important for players to enter the magic circle and feel a part of a story. Designers generally use storytelling and specific themes to make players feel involved and engaged. On the other hand, the roleplaying method is also mentioned in the interviews. As Steve Jackson mentioned, games are more fun for players if they are in character. So, the first aggregate dimension is identified as "involvement and engagement".

All designers met in the common ground about guidance is essential for the games to offer a smooth experience. But this guidance is not like structuring players' experiences moment to moment, it is about creating a baseline for players while giving them freedom too. This increases the playability of the games. Moreover, games should be easy to learn to attract players. Like Klaus Wrede said that games need to be light, but rules and mechanics should offer deep and strategic decision-making processes for their players. In other words, games should be easy to learn but hard to master in order to play them more. As a result, the second aggregate dimension is "playability and replayability".

The experience that the game offers during the play is important. In order to keep players active, designers construct non-flat game experiences. They design obstacles and relief points. However, these challenges need to be appropriate for the target's skills. This tricky balance of boredom and anxiety is identified as the third aggregate dimension.

The communication between players is a crucial point to enhance the gaming experience. According to Matt Leacock, the genre of the game has an important role

in the player's communication with each other. Therefore, "interaction" has been selected as the fourth aggregate dimension.

3 out of 5 designers mentioned in their interviews that they give pieces to the players and let them create their own experience. They do not manipulate players' experiences too much. This is like a foundation for each user to create their own story and strategy. Thanks to that, gameplays earn the fifth aggregate dimension: "uniqueness".

Steve Jackson, the designer of Munchkin, left some blank cards for one of the special edition versions of the game. He believed that it is important to let players personalize their own games. It is important to leave space for users to contribute to the game because as one of the designers said that game is like a sponge, open for the effects of player's characteristics and temperament. In this way, "personalization" becomes the sixth aggregate dimension.

All designers mentioned that if players have the ultimate goal inside the game this gives that feeling of achievement. They can build something together or save humanity in like Pandemic, this gives them they are doing something together for the greater good. Designers said, if players have this kind of achievement feeling it does not matter even if they win or lose, the experience is rewarding itself. These all words of designers create a group of concepts and with the light of them the sixth aggregate dimension is defined as "involvement and satisfaction".

Designers believe that a good game should take its player to an emotional journey. Each user finds his/her own unique meaning inside this journey. The relaxation and tension points create ups and downs in the game experience. They attract different emotions. Moreover, some designers mentioned that they use surprise effects to boost excitement. These are all done by designers to offer a sensorial and more memorable gaming experience for their players. That is why the seventh aggregate dimension is "sensorial and memorable experience".

Almost all designers mentioned that most of the successful games include common objects within a totally new meaning, function. This gives a sense of familiarity for

players. This leads designers to be more innovative with the components inside the game, envision new scenarios. So, the last aggregate dimension is the latest approach of design thinking which is the "innovation of meaning".

# 4. Discussion

After an intensive check on the service-dominant logic literature and game design literature, we decided to combine the analysis of the interviews with the value-in-use conceptualizing of Gronröös and Voima (2013) in order to better understand the nature of value and the roles of the parties involved. This brand-new aspect from the game design literature on value co-creation will help service providers to design, evaluate, and manage the activities that conclude in co-creation of value.
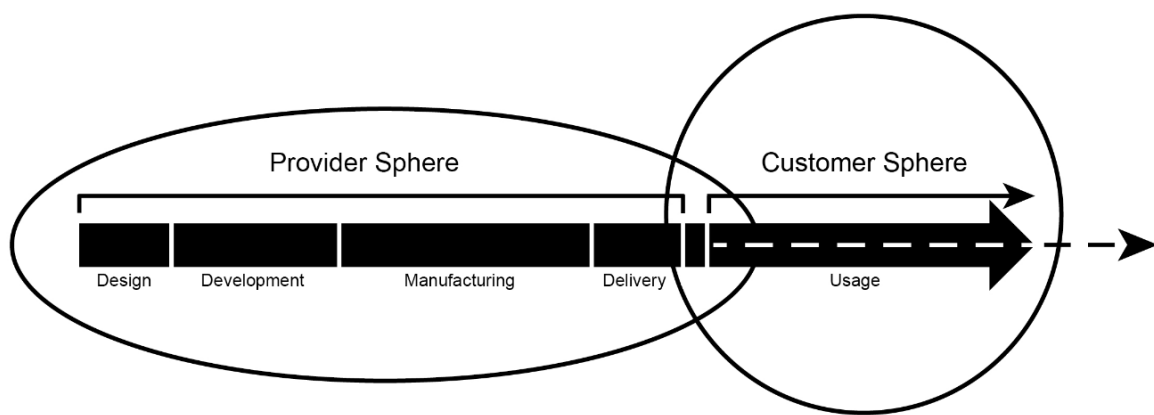


**Figure 28***: A comparison of the nature and locus of the value-in-use and value-in-exchange concepts by Grönroos and Voima (2013)*

A comprehensive method is used to analyze and aggregate solid dimensions from the interviews with the game designers. After extracting main and vital points for co-creation from the interviews, the dimensions are also further analyzed one by one in order to understand how service providers facilitate these dimensions that co-creates value for both sides. These analyses are schematically illustrated for every dimension.
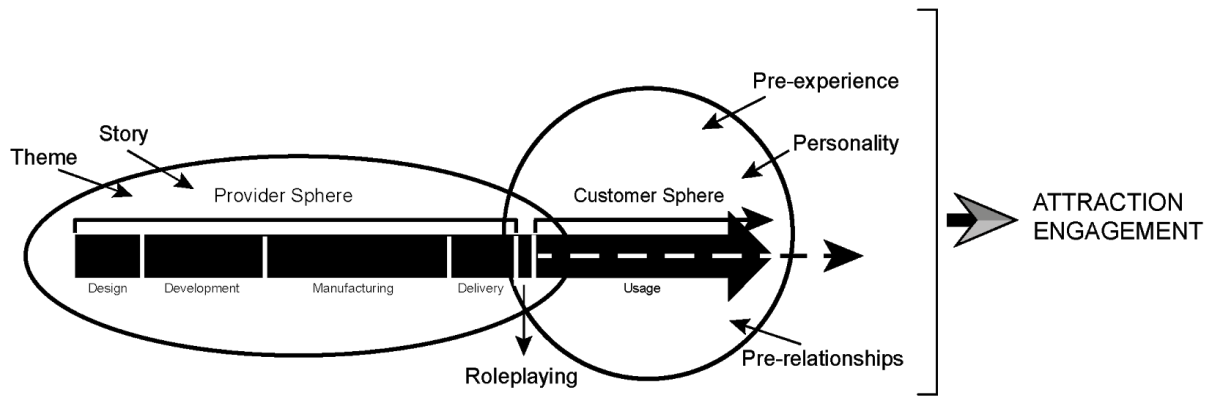
**Figure 29**: *Analysis of "Attraction and Engagement" dimensions on value creation spheres (reproduced from the studies of Grönroos and Voima, 2013)*

Figure 29 explains the first aggregate dimension which is involvement and engagement. Gronröös and Voima's (2013) concept is used to explain value-creation, what providers and customers do in order to reach involvement and engagement. Providers can use themes to create an environment and attract customers' attention. They can also place their services or product in a story. This engages users and increases the meaning during usage. On the right side of the Figure 29, customers bring their personality, pre-relationships, characteristics, and their pre-experiences to the "customer sphere". Each customer has different characteristics and experiences. The intersection of these two spheres creates role-playing and as a result, it builds involvement and engagement.

From the "Game Design" literature, the double seduction model can be used to build involvement and engagement. The first seduction happens when the customer enters the magic circle. This can happen even before the usage. If providers create a theme for their services or products, this can attract customers' attention and let them enter the magic circle. The second seduction is about to ensure that customers stay inside the service and experience. In order to design a seduction, providers should analyze the customer sphere very well, cultural, social factors.

There is also a narrative factor that comes from the theme and story that providers bring to the products and services. Services are sometimes complex, and providers offer stories, themes, characters, and decision-making inside the service to shape narrative experiences. Le Blanc (1999) explains the narrative factor inside the games that can be applied to the services too. According to Le Blanc Model, there are two narrative structures: embedded and emergent. The emergent narrative occurs with a

143

customer's actions, decisions during the usage phase. The embedded narrative is shaped by providers and creates conditions for customers to enter the magic circle, it creates a major story and experience arc. Service providers can adopt these insights from the game industry to reach "involvement and engagement" with their products and services.
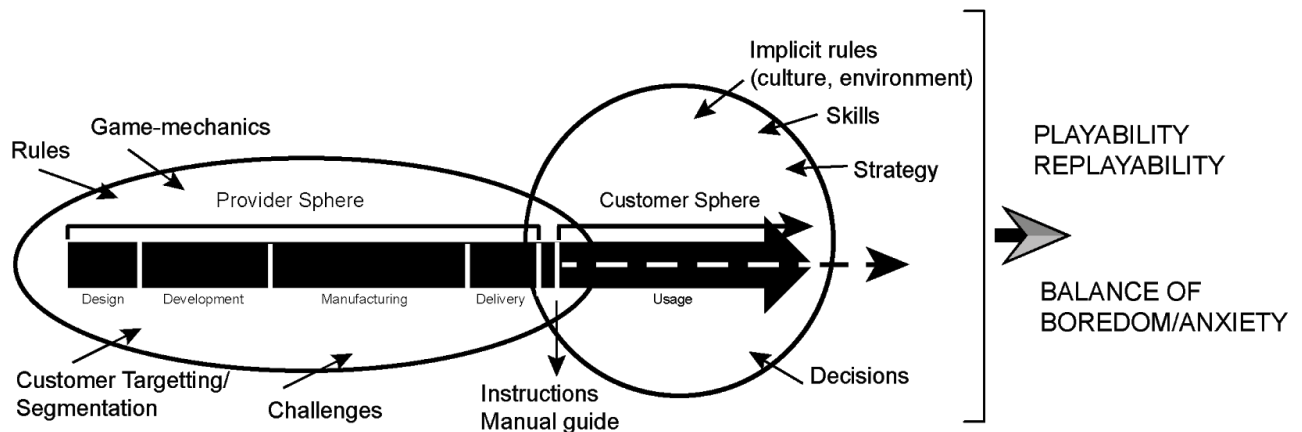


**Figure 30***: Analysis of "Playability, Replayability,and Balance of Boredom/Anxiety" dimensions on value creation spheres (reproduced from the studies of Grönroos and Voima, 2013)*

Figure 30 explains how to provide playability and replayability, the balance of boredom, and anxiety inside the service experience. The "playability and replayability" concept represents the use and re-use phases in the marketing funnel. "Playability" is about how to create a service or product that can be simplified for the target audience to increase the adoption of them. Besides "replayability" represents the repeated use and loyalty for the product and service. Service and providers can take insights from the game literature while designing their system. Rules are one of the biggest components of the usability concept for the games and providers should take inspiration from the gaming industry. Qualities and characteristics of the rules shape the customer's overall experience. These qualities and characteristics are limit customers' actions to "use" the service and product and reach their goals, be clear and obvious and same for all users to secure justice and to have a clear understanding, need to be binding for customers to avoid misuse or cheating and be repeatable in order to use more than once for loyalty. Secondly, game designers make lots of playtests during the design phase in order to understand the player's behaviors and actions properly before the release. Providers should adopt an iterative design approach as game designers do. This helps to avoid misunderstandings and mistakes and increase usability.

144

The other aggregate dimension "balance of boredom and anxiety" is about the usage phase and how to balance challenges with the target customer's skills and abilities. Csikszentmihalyi (1991) generates a model to understand this balance inside the games. To create non-flat experience providers, offer challenges, set goals, use different service mechanics. In this case, providers should know their target well to motivate provide appropriate challenges. On the other hand, providers need to create a space for customer's actions which is called "space of possibilities" in the game literature. This space is all about guiding customers without holding hands too much and not only increases the usability but also lets players join and create value.
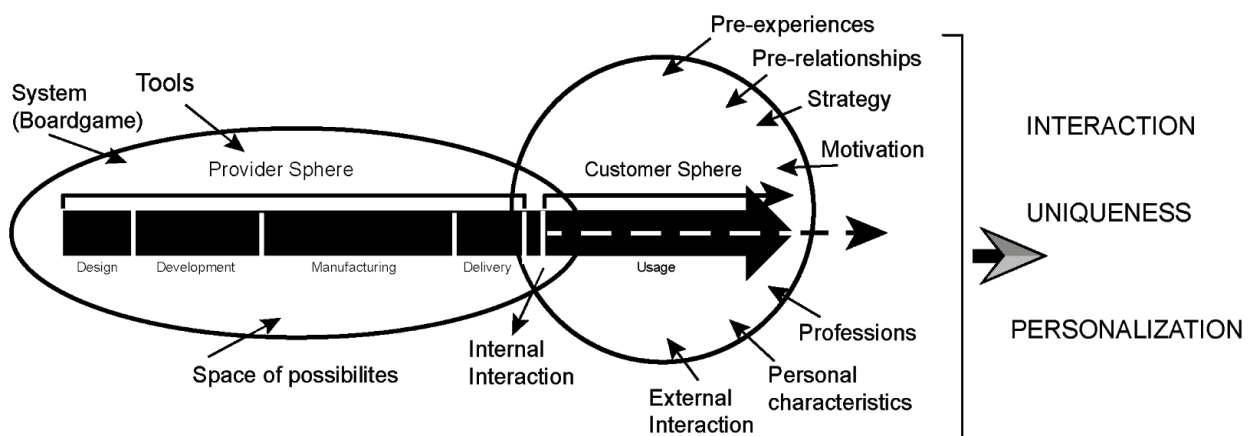


**Figure 31**: *Analysis of "Interaction, Uniqueness, Personalization" dimensions on value creation spheres (reproduced from the studies of Grönroos and Voima, 2013)*

Figure 31 explains what game designers and players bring to the table in order to boost interaction to make their services unique and personalized. In the game literature, there is a concept called social play to understand the interaction inside the games as examined in the previous chapters. The social play has two levels: internal and external. Internal social play emerges inside the game within the magic circle. Designers can shape it directly with the rules and the game system. This concept can be directly applied to any service by providers. Providers have the opportunity to shape internal interaction inside the service with the help of rules and structure. The service experience is not static. Customer's role inside the system and their actions according to them can constantly change. Sutton Smith's model is useful to understand internal social roles in the system. It explains what actors and counter-actors do, how is the

interaction, and what are their motives. It can be applied to understand any dynamic service experience. The other level of social play is "external". If we talk about the service, it is based on the customer sphere and what customers bring with them to that sphere. They also affect the interaction and make every service experience unique.

For personalization inside the games, Salen and Zimmerman (2003) offered a "space of possibilities concept. Service providers can adopt this concept to their services and offer several possibilities and results for customers can follow according to their needs. In this way, each customer can create their own path with personalized service and experience a unique service.
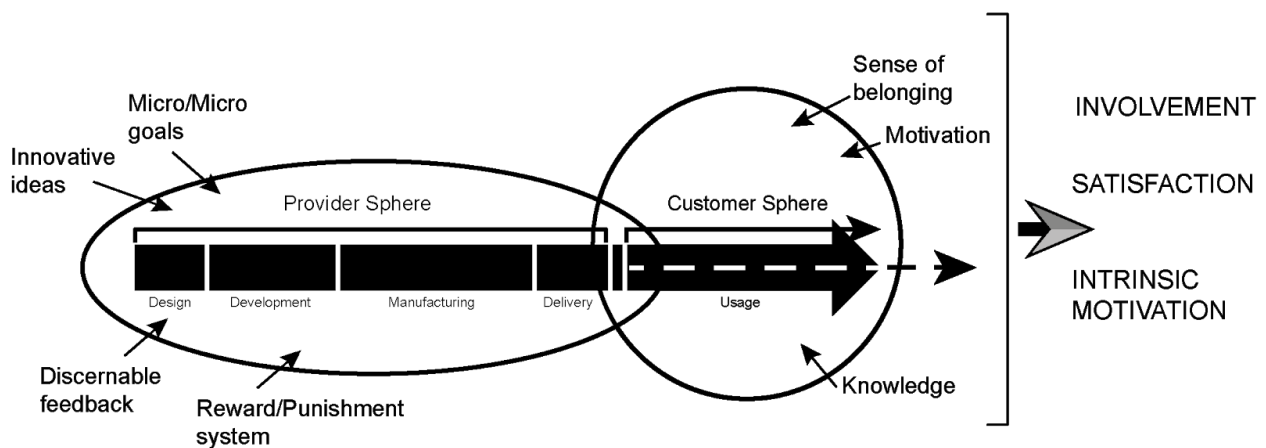


**Figure 32**: *Analysis of "Involvement, Satisfaction, Intrinsic Motivation" dimensions on value creation spheres (reproduced from the studies of Grönroos and Voima, 2013)*

The fourth group of aggregate dimensions is involvement, satisfaction, and intrinsic motivation. Players have a good time regardless of the outcome. What makes this happen? As mentioned in the Findings sections, it is "satisfaction". In order to do that game designers, set micro and macro goals to the players. They feel engaged and motivated. Service providers can use this method to offer a satisfactory experience. The macro goal is the main aim of the service and micro goals give a sense of achievement to the customers. Customers put their motivation, knowledge, skills to the sphere to reach these goals. Also, one of the main characteristics of meaningful play is discernable feedback. This can be applied to the service experience. Providing discernable feedback to the users helps them to see the outcomes of their choices and feel involved during the whole experience. On the other hand, reward and

punishment systems used by the game designers can be integrated into the services to provide motivation to the customers.
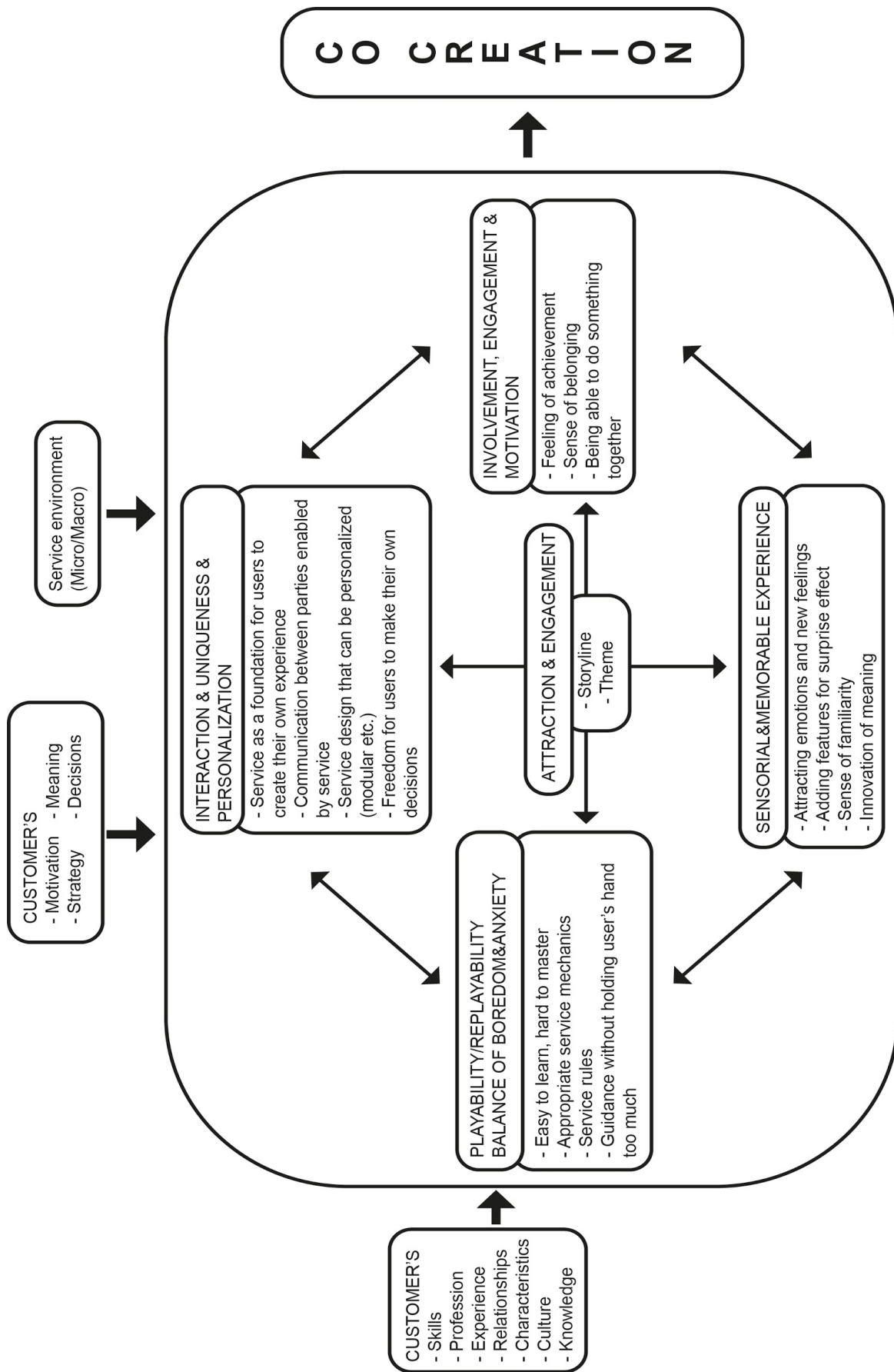
**Figure 33**: *Framework of key design elements for experience co-creation*

148

After analyzing every single aggregated dimension one by one, a robust and detailed framework has been illustrated in order to get together all of the analysis conducted before. The illustration is reproduced from the studies of Corley and Gioia (2004) on the qualitative rigor on the inductive research and the studies of Grönroos and Voima (2013) on the conceptualizing of the value co-creation. This illustration has been developed with the aim of capturing deeper insights from the interviews and using these insights to help service providers design products as platforms in a way that ends up in co-creation of value. Also, the framework brings various conceptualizing studies of value co-creation together and contributes to the literature in the sense that it provides a detailed approach to the roles and resources of the parties involved.

The illustration helps to identify the key resources of the parties involved in the service and provides a further thought on which dimensions are important for the co-creation of value. Additionally, the framework also helps service providers on how to facilitate these dimensions to bring customers into the equation in which they play a leading role in the co-creation of value.

The framework starts with the resources on the left that are already held by the customers before the service. These resources are the core of the creation of value and help service providers to design their service accordingly to have them in the equation of value. Customer's skills, profession, experience, relationships, characteristics, culture, and knowledge will entirely change their notion of the value of the service. However, customers cannot shape these pre-resources if certain design elements are not provided by the service provider. Then, on top of the framework, there are two additional factors which are again provided by the customers depending on the nature of the service and the environment they are experiencing this service. The characteristics of the service affect these resources held by customers during the service and their notion of the value. These resources include customer's motivation, decisions, strategical approach, and the meaning they educt during the service. Additionally, the service environment directly affects the value of the service. As it is already mentioned in the literature check under the experience economy studies, a product might be seen as much more valuable than it is under certain conditions.

Service providers should design their products taking into account the effects of macro and micro service environments.

The core of the framework includes design elements and actions with their consequences during the service. After analyzing the interviews, five aggregated dimensions were identified. These dimensions are;

- Attraction and Engagement
- Interaction, Uniqueness, and Personalization
- Playability/Replayability, Balance of Boredom and Anxiety
- Involvement, Engagement, and Motivation
- Sensorial and Memorable Experience

The dimensions above are vital for the co-creation of value and they evidently change the way customers value their experiences with the service. As it is already mentioned above, even though these dimensions are the consequences of customers' interaction with the service, the value does not only rely on the customers' side. Service providers should serve as a facilitator with the help of their service design concepts to allow customers to experience and use their own resources. Then, with the help of game design literature, these dimensions have been expanded on one by one in order to conceptualize how service providers should facilitate each dimension. Even though the framework provides a static picture of the aggregated dimensions and resources, the elements of the concept are interconnected, and they should be interpreted in a dynamic nature. In order to illustrate the dynamic nature of the dimensions and the co-creation of value, two-sided arrows are used in the framework. These dimensions are not only triggered by the actions mentioned under their title but also get triggered by each other during the service.

# 5. Conclusion

This study provides a comprehensive approach to the co-creation concept in a way that never been addressed by combining various studies of service, co-creation, and game design literature and helps service providers to facilitate key dimensions to create value for both sides.

Even though there have been numerous studies and extant discussions on co-creation and on the identification of the roles of the customers and the service providers in this concept, there is still very little known about how these parties engage and create value during service and what their roles are. In order to contribute to the co-creation concept in the service industry, making the literature search just in the service industry is not enough. Looking at the other industries would be beneficial to develop a different point of view, widen the horizon and develop a deeper understanding of service dynamics. In this case, insights from the board game industry, game design principles would help service providers to think outside the box. Thus, this study also contributes to the literature by providing a new and advanced concept on the co-creation of value and by providing a clear view of value-creating activities inspired by the board games industry. The study also shows that the service-dominant logic literature and the game design literature are not very separated from each other but also have a correlation and this correlation is used to analyze, identify, and interpret the value co-creation which is an elusive concept.

The results of the study and the analysis have led to some important points both for service providers and customers. The final model in the discussion part demonstrates how value emerges in certain dimensions between the product or service provided by the firm and the customers with the help of different sets of resource categories. These dimensions are playability/replayability for the usability and reusability of the service, the balance of boredom and anxiety to make support that, interaction and personalization elements for uniqueness, involvement, engagement, and motivation to keep customers inside while offering sensorial and memorable experiences. In the middle of these dimensions, there is attraction and engagement which has a relationship with all and feeds on them.

These dimensions play the most important role since they are functions to influence customers and value formation processes.

As a result, the study confirmed the latest updates to the foundational premises of the service-dominant logic which includes Axiom 1,2,3,4, and 5 with the help of the conceptualizing studies of Voima and Grönroos (2013) and game design literature. In this sense, it can be said that service providers design products as platforms that allow customers to use their own pre-resources and manipulate these pre-resources according to the guidance of the provider that concludes in co-creation of value. The study also suggests guidelines for service providers on how to provide guidance for customers to be able to facilitate these resources based on the game design literature.

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# 7. Appendix

**Steve Jackson Interview Transcript**

**1.      How do you come up with ideas for the board-games?** *Could you please explain the ideation process of Munchkin briefly?*

One has to beware of the question "Where do you get your ideas?" An author or designer hears that question a lot and usually has no useful answer. Ideas occur. Sometimes they are inspired by popular culture. Sometimes they just come to me. Munchkin was created as a satire on the kind of roleplaying game where no actual roleplaying takes place - the players just kill things and level up. The idea was impulsive, and the first draft was created very quickly. The game's huge success was completely unexpected, and now it has taken on a life of its own.

**2.      Munchkin has great success in the industry, it has a lot of additional packages and special editions. What makes it stand out in your opinion? (Like the characteristics, gaming mechanism, sense of humor, etc.)**

I wish that I could be sure because then I could do it again and again. But some of the features that I have observed are:

- There are no permanent alliances, and harboring a permanent enmity is almost a certain way to lose. Players openly and blatantly follow their own interest at almost every moment, sometimes helping you (especially if bribed) and sometimes hindering. There is a certain freedom when a game permits you to behave that way and still laugh.

- Many of the cards, by design, can be used in "perverse" manners - attacking yourself with a monster to get another level, for instance. This also makes people laugh.

- Despite being a "light" game, the original set and all follow-ons are thoroughly tested for balance. We do not consider that being a "funny" game gives us permission to do sloppy work.

- The combinations of cards are silly and invite the player to imagine (for instance) what an Ancient Enraged Potted Plant (and its Mate) might look like.

- And thanks to the talents of several artists, first and foremost John Kovalic, the silly ideas on the cards themselves are well represented.

**3. In Munchkin, it requires a lot of interaction between players since you need to follow the other player's card and decide whether you intervene or not, asking for help during your war, etc. What is the importance of fostering interaction between players for the gaming experience we have?**

I can say nothing more than "I think it's vital." We use the term "isolationist" to describe a game, or a playstyle, which does not interact with other players, and I'd argue that isolationist games are far less likely to be fun.

**4. While playing Munchkin, we had a really unique experience and noticed that we are all having fun regardless of the outcome. Every single player was having fun even if they lose. We were wondering what the key factor behind this is.**

I think I would point to my replies above. We are working very hard, in several ways, to make you laugh. I am glad we succeeded.

**5. Simple design detail of a board-game could have undeniable effects on customer experience. Could you please give us an example of a small designing detail that enhanced the overall gaming experience?**

Sticking with Munchkin: Compared to the first edition, we have started putting a few more keywords on cards, such as "Race," "Class," and "One-Shot." These are not technically necessary because the type of the card is obvious when you know the rules, but for the very new learner, they are helpful. And anything that makes learning easier automatically makes it easier to teach the game to friends - which is a vital part of the experience.

**6. There are blank cards in Munchkin, in some way you leave some space open for players to create their own rules, creatures, etc. Why did you come up with such an idea? What is the effect of blank cards on the gaming experience from the designer's point of view?**

Players do like to personalize their games. To me, an important reason to provide blank cards is that it might encourage more people to actually design games!

**7.      We knew that you have a role-playing game background. How does it affect your designing process?**

I think that most games, at their heart, are roleplaying. A completely abstract game is not roleplaying, of course, but any game with a theme invites roleplay. For instance, to me at least, Monopoly is more fun if you let yourself fully into the role of the greed-crazed real estate speculator and heartless landlord.

**Klaus-Wrede Interview Transcript**

**1.      As a board game designer, what kind of game mechanisms and tools do you offer to your players to create their own experience? What is the role of designers in this context?**

The mechanic often depends on the theme. Mostly I develop a game from the theme and not as an abstract mechanism. Carcassonne is such an example. I wanted to rebuild the landscape around Carcassonne in the game. With these fortified cities and castles and monasteries... So, the way to a tile-laying game was part of my target what the games should do.

Another example is BALI. There are different people who all believe in a natural spirit and offer natural things in temples.

These facts I tried to focus on a dilemma-mechanic. You have to offer, but the offered naturals will get worthier because of this. So, you want to keep them on your hand. so, what do you do?

The player has to feel the dilemma and has to act. He must be active - so he has to decide always and make his way through the dilemma and sometimes through fate.

**2.      Simple design detail of a board-game could have undeniable effects on customer experience. Could you please give us an example of a small designing detail that enhanced the overall gaming experience of one of your games?**

I often get the experience of this if a group plays something wrong. or even if editors of the publishers play it wrong. So, it could be important, that I am with them if I show a publisher a new game. Some small mistakes could knock the whole gameplay out.

You know this as a player as well as me, I think.

Sometimes after many editorial testings then suddenly came out, that there were some rules played wrong - just in time before the release of a game and printing the rules...

**3.    While playing your games, the experience we had was always positive no matter what, even though we lose! What are the key design factors that result in "having a good time regardless of the outcome"? What are your tricks to make players feel satisfied and have fun even while losing?**

If it is a constructive and common experience, there is no angriness and frustration. If you build something together, then you maybe want to win and need certain tiles or cards, but there is the experience of doing something together. That is very strong. and this also shows the success of cooperative games at this time.

Generally, the frustration is not so high if you develop something in a constructive way. But if there are too many destructive elements, frustration is preprogramed in my opinion.

**3.1 What is the role of the genre of the game in this context? Especially in a peaceful game like Carcassone? How does it affect the user's experience from your eyes?**

Oh - Carcassonne is not peaceful in each case. Maybe you watch the CARCASSONNE WORLD CHAMPIONSHIP finals or even in the German championship or Italian or Russian... What you like.  They play Carcassonne more aggressively.

But this depends on the temperament of the players - the game is like a sponge - open for the temperaments and characters of the people. You could play it peacefully - nearly cooperative (I watch it often in families) or very aggressive.

But yes, the genre is indeed very important for that. but the genre is only for the atmosphere and feeling important. You can design a middle-age game like Carcassonne as well as a cooperative game or a competitive game or an aggressive game - it depends on the taste of the designer and his ideas.

But in my opinion, it is easy to design a game with many rules and add here and there some rules for special cases. But it is more difficult to bring down the mechanic to an exciting point - so that a game is exciting with small rules and you can focus on the game and not on the rules.

**4.      Most games have a reputation because of being complicated and challenging.  Can you explain your perspective on the differences between conflict games and peaceful games in terms of gaming experience?**

I think it does not depend on the genre or kind of game (conflict or constructive or cooperative). There are examples in each genre. There are very complicated cooperative games as well. And very simple conflict games.

**5.      As a researcher, we need some specific answers about some topics. We are very obsessed with "Why should people use a product or a service? So of course, they are new, they are unique but if there is not why probably they would not be successful. If you would suggest someone to play a game, we can refer to Carcassonne, why do you think people love to play it?**

I think it has not to be always the "newest" or "hippest" or a gimmick in the game. People like to be involved. They like to have emotions and fun. And want to have a good time playing a dive a little into another world. If you can reach this, it is very much! You cannot reach more!
It is difficult to say, why people love it. Maybe you better have to ask the people.
I always design my games up to the point I like them and do not have to change something more. Sometimes it is a very long way (like THE DOWNFALL OF POMPEJI needed about 300 versions up to this point)
I am happy if people have the same taste as me and like the game. but it not in every case and with every game. Tastes are always different.
But I think, the people like the lightness of the game and the rules - but to have decisions in every turn on one side. And the deepness and strategic on the other... This combined with a little bit of luck ("I need this tile...!") and building something together is the combination of the success of CARCASSONNE.

**6.     In your games, like Carcassonne and Colosseum, you are offering an ambiance through historic themes. Seems like historic ambiances are your signature design strategy. Why? How do these themes affect users' engagement with the game?**

Yes, I very much like historic themes and develop games from themes. But not in each case. I did some small games in the last years. These are only abstract dice or card games like "CALAVERA" "BEAM ME UP" BLOXX" and others...

But soon there will be published again two greater games with historic background and developed from the theme again.

I start there with me. I always use the themes I like to make a game about. because I like to dive into the historic theme in the designer phase and when I play it.

POMPEJI is a good example. I like this place and area much and was there 3 times. and I like to beam back into the time before and during the volcano eruption. It is fascinating for me that the whole city was freezed and buried from one moment to the other... That is a pure atmosphere.

**Matt Leacock Interview Transcript**

**Federico Artusi:** I would say thank again Matt, maybe we can start with the questions and again.

**Matt Leacock:** We can just jump right in!

**Nida ARI:** Ok. I am starting then since I had this design background. I want to ask about your design background too. We know that you worked as a UX designer while designing pandemic in, Yahoo! So user experience is the process of researching and developing and also improving all aspects of the user experience and creating relationships. So, I want to ask about how does being a user experience designer affect your games and experience you provide to your players?

**Matt:** Well, I could use all the training and job experience that I that I got working as UX designer in game design. The whole kit of processes and methods and everything, I could almost just move right over in the game design. There is a really good mapping. You know, the core loop of research and analysing, iterating and then testing and continuing again, using your experience design, you can jump directly into game design. So, it is a lot of time using those methods to do play testing. You know, a lot of direct observation of people, you know, not interfering with them as they played. Try to understand how the game was working and, you know, build a model that was working and then iterate and so on. So, all those kinds of techniques translated, all the visual design skills that it used in my previous job, I could often translate over all the paper prototyping certain manoeuvre. So just on and down the line that that kit of skills directly translated into indicating something.

**Nida:** So, do you think that does it create any difference on the experience you provide through your games. How does it affect?

**Matt:** Yeah, I think so. I'm like many designers, I do a lot of remote test things where I'll package up games and mail them out and ask people to videotape themselves playing and then I'll watch and code with, you know, a big spreadsheet with time

codes, you know, different behaviors I see. And I am pretty rigorous about that, especially in the later process, at the later stages of designing games where I think a lot a lot of more amateur designers will just sit down and even play the game and directly influence. And that's why I started to I mean, when I was designing pandemic, I had these futures tell me to shut up and sit in the corner and just watch people because I was influencing them and telling them what to do so that the game would work. And over time, I realized that I needed to become more objective and separate myself from watching stuff. So that is just one example of how I you know, the more rigorous methods that I picked up in UX could apply.

**Nida:** You mentioned about the users in this context. Players create their own experience and you will just while you are watching and taking notes, et cetera, to improve your game. And I want to ask about, as a designer, what kinds of tools do you offer your players to create their own experience, to feel them more flexible?

**Matt:** Yeah. I mean, early on it is a little bit more collaborative. I do not do a ton of, like, co-design with people. When I have got co-designers, I will do that. But not with a player so much. If you mean like you were playing early stages of the game and getting them involved in and shaping that experience, is that is that what you mean?

**Nida:** Actually, I was not. I am trying to ask about the after you complete the design. So, while actual players playing. I am talking in this way.

**Federico:** Maybe I can intervene. Maybe it is related to how can a player create their own specific experience, or they can come out with one specific story, one satisfactory story and experience while playing.

**Matt:** I guess I just kind of set up a system and then let the players enter it and then manipulate however they want. I mean, it's like if you take pandemic legacy, for example, we don't want it to be so much on rails that you're just playing out the story like a choose your own adventure, but where you going to be? And it is falling down a linear path. You know, even if it is branching, it is not on rails. So, I do not know how to describe this terribly well. I think it is I try not to hold the players hands too

much. So, if you look at pandemic, we could include a guy that tells you how to play the game well, but we do not. We just say, hey, here is the system. Jump into it and see what you can do and fully expecting that the players are going to fail and that they have to create on their own models for how to play it well. And so that is one thing I like, people ask me how to play the game well. And aside from saying, hey, you know, balance long term and short-term goals. I never tell them what to do. I try to get that is their space. They need to figure out how to solve the problems. It is not my job to tell it.

**Nida:** Thank you for answering this question. And this also led me to ask about the design details, simple design details. Could you please give us an example of small designing detail that changes and enhances the overall gaming experience in your games? Is there any example?

**Matt:** Yeah, thousands. I mean, there are little things many, many times that imperceptible things and they are almost they just add up and aggregate. I mean, when I'm taking notes on playtest, for example, if I wasn't taking notes and being really carefully, observing carefully, there'd be so many trivial things that I would just fly by one after another and I would never be able to remember them all. So, it is very important to kind of jot them down. But you know what things what players call things during the game when they look at the rulebook. You know, the type size of something that the length of a text being too long and being tiresome, the cadence of a sentence when people read it out loud, being awkward, you know, just down the line, just thousands of little details and a really big level, though. You can find things that just break early versions of the pandemic. I, I used a single deck of cards as the player deck and the infection deck, and I thought that was really elegant and only required one deck of cards. And I thought it would be wonderful. But then when I watched people, when they had to discard the cards into two separate discard piles, they just could not handle it because they were constantly making mistakes, just constantly. And I thought that was part of the reason why it was like guiding play. Because otherwise people would make mistakes in the game would break. But it was only until I watched people make those errors, which, you know, you can write very simply during this stage, discard a card here during this stage discarded card

there. They're very simple instructions, but it's only when you watch people behave, you know, with a very simple set of rules and completely fall over themselves every single time, regardless of the group that you go. And, you know, maybe something needs to change here. So, there is an example of one thing that you get through observation that you will not necessarily know by just reading the rules, because the instructions were quite simple.

**Nida:** For the next step, I want to talk about the players' gaming experience. For example, pandemic in our case is a cooperative game and users need to make interactions between them. They have to work together to cure the disease. And as a player, for example, I feel more inside the game since I have to work with the others. I, I like I follow the all the cards and I learn all the roles, et cetera. So, what is the importance of fostering this interaction between players for the gaming experience in pandemic?

**Matt:** Yeah, I think when it is a cooperative game, you want everybody, actually in any kind of game, you want the players to be involved most of the time. I mean, it is it is really dull when you have got a game and you take your turn and then you have to wait for a player to go around the table. And it is even worse if what the other players are doing will affect you in such a way that you cannot even plan your next turn. You know, they have to do their turns. And then finally then you can upload the new board state, figure it out. That can make for a very disengaging game. When you are when you have to when there is so much downtime. So, in the cooperative game, one of the benefits of co-op games is that everybody can be involved all the time because all the decisions affect everybody. And so, conversations are a great way to do that. You can talk about, you know, making plans or, you know, we can go with your idea or my idea or their idea and making all these trade-offs. That comes at some cost, though. You also want people to have some sense of autonomy. So that is the other force. If everybody is on the same page with all the same motivations, it can feel like a solitaire effort. So, you have to kind of way those two things at the same time. I think that is the biggest benefit of co-op games is, you know, they did this great fertile ground for conversation because everybody is involved all the time.

**Federico:** I have one little question on this part. In your experience, did you see different players that love competitive games from the ones that prefer co-op once or it's a little bit of a mix and people enjoy to balance the two different games in their collections, let's say?

**Matt:** Yeah, I have seen it. I've seen some people who really don't like them, but not as many as I would have guessed, I guess, when the format was new, a lot of people were like, well, why would I play a cooperative game? I am only about competitive games and I do not see that much. I think it is because the games have gotten better. I think early cooperative games were a little and especially if you go back in the 70s and so on, they were they are not terribly well designed. They were not really worthy of someone's attention for an hour. But now that you have got more interesting puzzles that are worthy of, you know, sitting around for 45 minutes and talking about, I think that that's really kind of just disassembled that argument about the games. So, most people I know play a mix of both. And then there is some folks who really like corporate games more because they do not want the competition in the games.

**Federico:** Do you have a preference in terms of the designer? So, is it easier or more fun to design one instead of the other one?

**Matt:** For me, it is easier to design cooperative games. I just feel more comfortable doing them because I have worked on them more. I think I enjoy doing both. It is a little easier for me to test cooperative games, too, because when I when I'm using the method, I really like this or not play testing, I can get inside the player's heads much better because they're all doing like, I think allowed protocol. They are all talking about what they are thinking about. And if I am designing a competitive game, I watched the video or, you know, I am in the room watching people and, you know, it is two people staring at a board silently. It is like, I do not know, you know, what their emotional state is. It is harder for me to understand what is going on inside their heads because they are not talking about the experience all the time. So, I got more comfortable on the co-op side, although I have done both.

**Berker Gundogdu:** I have a question. While playing your games, especially your games and the general board-games, the experience we had was always positive when we finish the game, even if we lose, we were losing but having fun. I was wondering, what is your tricks to make players feel satisfied and have fun even while losing?

**Matt:** Yeah. I only learned this sort of like after me. So, after I design the game and started doing other cooperative games, a friend of mine kind of pointed out what I was doing. And then and now I kind of understand some of the tricks and a lot of them have to do with really good storytelling where you create kind of waves. So, you send people on an emotional journey of ups and downs. So, if you are if you are reading a good story or listening to music, they have periods of tension and release. And often they escalate to a certain point and they reach a climax, you know, just standard story structure stuff. I think if you can design a game like that, you are going to the players can be more engaged. So, if you look at pandemic, it has got these players are working together and things are getting better. And then there is an epidemic card which ramps up the tension. And then there is a period of time where they can kind of get a handle on things. And then there is a little a bit more relief. And then the tension ramps up again. And all the while, it is kind of scaling up until you get to this critical point where, you know, you find the four cures or, you know, the world goes haywire. And I think that kind of story structure really helps if everything is just flatter, you are going to have less engagement.

**Berker:** Do you think we can manage this and provide users to feel more satisfied and have fun while losing if we design a competitive game instead of corporate game? Do you think this is related to the genre of the game?

**Matt:** No, I think you can do it with competitive games as well. If the stakes keep rising over the course of the competitive game, that is at work. If you were reaching intermediate goals throughout a competitive game, I think that can reach you. You can get these periods of relaxation. And, you know, I need to I need to get to this point and then, OK, I have achieved it. But now I see this next goal and I reach for that. And all the while, the stakes may be getting higher and higher like when you are

watching a game show on the dollar, values are doubled in the second round. You know, things just keep getting higher.

**Nida:** This point, may would be very beneficial for our research there, because the main point of our research was this kind of experience and the having a positive result regardless from the outcome. So, I want to ask about the legacy part. So, we had, I had never had a chance to explore the legacy, but the concept will be very interesting in our case. So how does pandemic legacy keep people engaged over time?

**Matt:** It uses a lot of different... It is a pretty big bag of tricks there. It's a very robust way of playing a game because you can play the standard game and in legacy the players are more invested because their decisions not only affect the current game, but because there's permanent effects on it for every subsequent game. The stakes are raised even higher. So if I if I make a mistake or do something really good, the consequences of those are marked on the board in many cases or, you know, you have to rip up the card or your plastic or that makes something better. You made me see that not only is this going to help this game, but it can help on the subsequent ones. So suddenly, you know, it is even more important. So that is one way. Another is that when Rob and I were developing the games, we noticed some things that that hooked players. And so, one thing was we could give players a big obstacle. And then toward the end of the game, you there was suffering through this obstacle at the end of the game. We could then have them unlock some tools that would help them deal with that. And they basically get some new superpowers so they could purchase to deal with that obstacle. And that would lure them into the next game because they go, OK, now it is going to be easier for us to solve this problem. I cannot wait to try out these new toys. Then they would open that up and we would present new obstacles so they would have to then level up again. And so that that evolution drew people in. And then there is that all the fun of Christmas morning. So, every time you are playing a game, you are opening up. But it is essentially like advent calendars or a little Christmas presence for the packages. And you never knew when you are going to be opening these things up. So, you had these things opening up and kind of a variable rewards schedule that you could have these surprises. So, there is a lot

of anticipation built in. That was another thing, and we had to make sure that the challenges that was appropriate, so we built in negative feedback loop. So, if you started to perform too well, the game would react and make a little bit harder. And if you were having a hard time, you would react to make it a little bit easier. And so, we are just trying to keep people in that nice kind of flow channel where difficulty levels were appropriate. Those are some of the some of the things that came to mind. But the whole thing was also kind of structured like a television season where each game was like an episode. So, it would have its own arc. But then the whole season had an arc as well. So, we tried to have this ramping tension throughout the entire campaign. And some months of the game were a little bit easier and some a little bit harder. So, there was this these microwaves within each game, but then also bigger ones across the season. Took some of the techniques that came to mind. But it is a pretty new format. And so, it is kind of an exciting place to explore. There is a lot of things you can do.

**Federico:** I have a question related to this. I guess probably in terms of design complexity is a little bit harder to design a legacy game, since you need to consider all these variations among player performances and everything. But on the other side, probably it is a little bit easier to create a story since you have chapters. So, are there some concepts or tools that you can apply to the design of a regular games? I mean, this way so games that you need to repeat to replay to keep players engaged in playing that game several times and not become tired of being mechanically.

**Matt:** Yeah, I think they are different types of different palette of options because what they like to game, like I said, it is easier to have an evolving story because you can then unlock new material and keep it like you're turning pages in a book and exploring something new. And if you are playing the same game over and over again, basically you are you have got variety. But you are just it can either be an outcome of a lot of different subsystems that are operating, or you can have like a chapter book. And either way, it has a different feel to it. So I'm not sure it's really you can draw from the legacy toolkit and apply it directly to a game that you replay, because it feels like, to me, like if you're doing a chapter book thing, you're poking at different spots each time and you don't get that development that you would over the

course of multiple plays that you do, that you do get out of a legacy game, if you like, different piece. Maybe I am missing an opportunity, but I do not know.

**Federico:** Yeah, I agree. I can relate to it. I have another very detailed request. And you mentioned the fact that especially during pandemic legacy, you find this little gift. Let us say it is a surprise, surprises once you open all of the boxes and everything. But you also have the opposite effect once you need to destroy elements of the game and say arts. And I discussed that a lot personally with my small groups of gamers about the fact of will you destroy those cards, or you will not do it because it's in the end it is hurting the game. So, there is this hard feeling in doing it. Is this something you imagined you wanted it to be like these or you just found out it or?

**Matt:** Oh, I think Rob stumbled into that. Rob Daviau stumbled in that when he did risk legacy and I played that year before we designed Pandemic, like together. And I remember how shocking that was. Because you are basically playing with social norms, you know? I mean, people do not do that the games. It is not what you do. But it is a design for a single player. So, we did bring that into the pandemic legacy from the very outset, the publisher is very much on board on making it a single play through experience. And it really freed us to tell a story in a much more compelling way. I think knowing it was a one-way journey, we could have optimized it for replay. And there are like other legacy games that we are working on right now that we will have replay at the end. But it is a different type of experience and different type of story. So, for this one, with the nature of the storytelling where there is a one-way journey, there is no going back. Stakes are high. It seemed like we could make it much more traumatic. And that frees you to do things like, you know, you have to destroy this card. And I think that really pumped up the emotions in it, as well as the side effect.

**Federico:** Personally, that was one of the hardest moments in my board-gaming playing, destroying cards, and then thought a lot before deciding whether to do it or not to do it.

**Matt:** Yeah, I watched a lot of people really agonized at that. They put it in their pocket and went straight I am not going to destroy it. What are you going to do with that? You know, do you save your pizza box after you order takeout? You know, it is, anyway...

**Federico:** A friend of mine destroyed the first one. And then he got some tape to fix it So, yeah, it is really hard. But I think it's the part of the experience for me personally. I decided to go for it once. I recognize this is part of the game. So, I need to embrace it.

**Berker:** I have a question about the pandemic legacy game. Do you think that the audience were different or not in comparison between the normal pandemic and the legacy one?

**Matt:** So, I always imagined that the pandemic legacy players would be a subset of those people had already played pandemic and loved it. And, you know, we are a little bit more happy market people who are into the into hobby games. And I think that to a large extent, that is true. But I was surprised by the number of people who jumped into that first they had heard how, yeah, it gotten very good reviews and so on. So, there were people who just jumped pandemic legacy as a first. And we designed it so that you could play sort of like vanilla pandemic a few times before you got into it. So, I was surprised that there were some people that jumped into that first. But I do think it is more of a hobby product and less of a, you know, someone going and looking to trying to decide what to get off the Target bookshop. You know, the target shelves at a big box store. I do not think it is really a mass market product.

**Federico:** Related to this. Was it difficult to maybe pandemic was the second major game of the risk with this legacy system, but wasn't it easy or not to communicate to players with this new this new kind of this is a way of playing? And the fact I am referring especially to the fact that in theory, you purchased the box and you can just play once. Then, of course, you get some basic scenario that is pretty over. But the overall experience is just one so it is very different from the normal board games that you can play one at a time too.

**Matt:** Yeah, I think I think Rob did a lot of the heavy lifting. I did a lot of that work. I did rest and got all the blowback. But when risk came out, Risk Legacy came out there, it was just like, oh my gosh, people did not know what to think about that. And there were countless threads on board game geek about, you know, is this good or is this bad or what is this? And are they trying to process it? So, in dynamic legacy came along. There was still a little bit of that, but it was nowhere near as much of a conversation with hobby gamers. They had understood that this format existed. They could talk about it in terms of this other game. And then it was sort of a question of like, well, then it is kind of boiled down to is it worth the money? So, you pay a certain amount for it. You get a certain number of plays. And then I think the major argument in favour of it was when you get to play it a lot and how many of your games do you actually play that many times already. And a lot of people could recognize the fact that, you know, they buy a lot of games and they might play them once or twice. And here was a game they are going to play 12 to 24 times. Yeah. So that that argument kind of fizzled out. For the most part, it was there was not as much blowback from the community about it.

**Federico:** That was some reason, say, I got so in this way, I am not saying you are forced to finish the game, but you are much more incentivized to go through all the playing. So probably in terms of a monetary account, let us say it's pretty immediate that this is valuable. I was just wondering about the fact that you destroy the game and you play beautifully. If you are already on pandemic regular game, virtually that box will stay in your shelf just marking a spot. I can relate to it once a I stare at it for a year, for example, so I can relieve in some turning points in the experience. So, this is kind of kind of strange for me, too.

**Matt:** It is interesting how games and our shelves are look like books on our shelves. Right. They communicate some sense of identity. You can remember having read them and what they mean to you and you might read them again, but maybe you will not. Yeah. Like DC shall things that people have. And it is like a story. Here is what I like to play. Here is why I am playing.

**Nida:** Since we already mentioned to the people why people love playing games and what are their emotions at the end. I want to ask a question and some specific question related to our topic. We are a little bit obsessed with the why people should use product or service. So, OK, they are new. They are radical. But I want to know, if you would suggest I want to play a game, maybe pandemic. Why do people why do you think that people we love to play with it?

**Matt:** It is a way for you to get together with other people and playfully solve some really challenging puzzles. You know, and I like to talk about the stakes at hand. You know, if you lose, then, you know, all humanity is lost. So, it is up to you. You kind of go on a four-hour journey and it only takes 45 to 60 minutes. Yeah. It is fun for the whole family. Yeah. It gives you an opportunity to try to save the world. I guess what I like to say and do it together.

**Nida:** As a last question, I would like to change the direction into Knit Wit. Because I found it very interesting from the interaction point of view, the things you offered to players. You offered different types of tools to players which they have never been faced in boardgames! So, how was the feedback?

**Matt:** Oh, the knit wit? I think the feedback on the material was very positive. People liked the tangibility of the buttons, spools, and all that. I think the game never took off primarily because it is very niche, and you need to be very into a special concept. Because it is very difficult special puzzle. And then you also have to be kind of into the boardgames and then it is a lightweight party game where you cannot take too seriously. Because you are making these judgements that are difficult, you know, should we allow that or not? And it is arbitrary. So that combination of like wow you have to be into puzzles, boardgames and not care too much is pretty tough order to ask for an audience. There are people like that game but not a lot of people. If I would do that kind of game again, I would do the materiality. I love doing that, I mean it is a board-game, it should have physical, tangible components that are fun to play with. I think we got that right. But I think what is missing is the way that the group asked to evaluate what is a good answer and what is a bad answer. So, I would go back to the more of a social aspect doing those evaluations in the party game setting

because the group-judging thing did not really satisfy the people who also like the special puzzles and boardgames.

**Jonathan Fryxelius Interview Transcript**

**Federico Artusi (Interviewer):** Of course, for me, the deeper it is, the better it is for research. But of course, I would say that it depends more on you how much you want to go in detail, how much time you want to spend on this, of course.

**Jonathan Fryxelius (Interviewee):** And I have in total, I have just a little bit less than one hour. And then of course we can spend it up in several interviews and then talk more about it. Well, I let us try to fix it. How many. OK. But I can just answer this question first. And different designers use very different methodologies to come up with their ideas or not. And we realize this very clearly because we are not mainstream designers. And if you look at the German market, the European game, the traditional Euro games, it usually always feels like they come up with a game mechanic and whatever this game is about. It could have been about anything. So, you come up with a good mechanic and you move this cube here and you move this cube here. This is balanced against this. And this works like this. And then it feels like they almost made the whole game. And then afterward they ask, what is so and what should this be about? And then just, you know, brainstorming in this. Oh, this should be about making the cake for the king's wedding or. Oh, no, no, no. The same day could be, again, about the revolution in France. And as he came up with this lots of different ideas about how this what this game is about. Many euro games like that.

**Federico Artusi (Interviewer):** Can I ask you one thing? You mentioned very specific things, like the cake for the king or something. Where are they coming? So, this is just a random idea so based on your read.

**Jonathan Fryxelius (Interviewee):** But it is not completely random, though, because if you look at a lot of the games on board, on "boardgamegeek" for example, they are above very trivial things. And for example, the very famous game "Azul" is about putting this you know, this stone bricks in a specific fractal pattern or something. And that is like, okay, but why? Why do you do that? Why? Why would this interest anyone? And probably this will not get people interested in the craft of

laying tiles. It is just, you know, that is just what they do. And "Patchwork", that is also a game. And what is this game about? Well, you are putting patches on a piece of the puzzle. OK. Why would that be interesting? And you have no idea. But OK, you guided. You can do that. So, it was not you know, the King's wedding cake is quite a random idea, but it is still. That is the way it feels with a lot of games on all games, of course. But a lot of games, it feels like, you know, they needed to be about something. And if they can make it be about something and that is, you know, everyday thing and it could appeal to more people, maybe more ages more both women and men or something like that. But anyway, this I told you this just because we have a very different approach to this. We always start with the theme. We always start as storytellers. We want to tell you a story using a game, or we want ourselves to experience a story. And there is no game but fulfils this need in us, for example, for Terraforming Mars. My brother Jacob, he has always been a science-geek and in a Mars-geek, a space-geek. And he really wanted to play a game about terraforming Mars. And there is no such game. You know, nobody had made that game. Nobody had made a game where he can, you know, sit back, and feel like he is doing and changing a planet. And so, Jacob is maybe the most obvious, the narrator of his all. He always, always, always starts with a theme, something he wants to tell us. And then instead of just, you know, trying to force a game mechanic into this, if he thinks about the theme. So, if you are a corporation and you want to terraform Mars, then you probably would need a lot of ideas and projects. A project. We can do that with cards. So, you see the whole mechanic. It comes and it is derived from the theme to enhance the theme. It is not always like that. And I think for Jacob, it is always like that but for me, for example, I can be immediately inspired by components. One of the best things I knew a few years back was to go into, you know, a small detail shop. And they have all these small details, small horns, small, you know, things that you actually used to put as a decoration on the table or something. It is like, "Oh, these look nice.". And what can you do with this? How can I utilize these things and make a game out of it? And one example, it is not from our company. But one example of that I thought did this very well is a game called Kitchen Rush from Artipia Games, I think.

**Federico Artusi (Interviewer):** Yeah, I am not familiar with this, but yeah.

**Jonathan Fryxelius (Interviewee):** So, in this game, you are it is a cooperative game where you are trying to handle a restaurant and it is a real-time game. So, everybody is playing on the same clock and you are trying to serve as many customers you can at a specific time. And they had a really cool idea where they have, you know, small sand timers, you know them, you have put them upside down. And so, any time when the sound has run out, you can move the timer and put it upside down somewhere else and do the action. So you have a lot of timers and you can only move them when that's when the sand runs out and then you can move them and then you have to wait until they fall over again. So, this means that you cannot focus on the same thing. You have to try to see which one has run out, which one can move. And the thing that fascinated me here is that they find common game components like the sand timer, and they do something completely different with it, something that you have never seen before. You use it actually as a figure in the game. And such innovations, so to speak. Those inspire me a lot. So, I really want to come up with ideas to take something with people, they know what this is. But you should use it in more ways, in new ways. At least for me, that is also an inspiration. Well, as a company as a whole, we are always starting with a theme, we want to tell you a story and we derive the theme or the mechanics from the story. So, this has several advantages, but maybe that is not you are asking right now.

**Federico Artusi (Interviewer):** No, I am interested. The more you say something and usually, I find something interesting to explore a little bit more. What I found really interesting is the fact that you start from something that you like, or this is very clear in the Jacob example, for example, the Terraforming Mars that he won. It is very core. "I want to play this game. So, I create it." As a company at this moment do you ask people about themes or you start always from themes that you like and you are convinced about or somewhat it happens that someone else asks you or you come in contact with a group of people and you say, oh, this is really interesting for people. Sometimes, maybe I can say I am interested in this "cake for the king", but maybe in the end the customers are not. So how do you decide this is valuable or not?

**Jonathan Fryxelius (Interviewee):** Yeah, that is a very good question. And we are not completely agreeing on this all the time. So, Jacob, for example, he has a lot of prototypes that he has made a lot of small games, and he is a true optimistic. He sees the strengths in his games, and he is trying to promote them as hard as he can. Every time he makes a game, he makes it feel like this is the best team we have ever made. And I am not exactly like that. But he is very promoting his own games. And of course, when you create a game, you always see the potential. You always see, you always see that this could be so great. But as you say, a lot of the time and you have to realize at some point that maybe this is not good for the market. Maybe this will not be able to sell even a small print run. And so, we have a few of those prototypes as well. So, what we usually do is we develop the games ourselves as at least the first prototypes. If I have got an idea for a game, I developed the prototype for myself and I tried with some of my friends. And when we get together in the company, if I feel that the game is worth showing to them, that I show it to them, and they can play it. And usually, it takes a lot of time before it becomes one of the priorities. Either they really liked it and they get their own prototypes and they continue testing this game with other people and getting feedback. Or it needs much more work. And either they are not very interested, and I continue if I want to continue and if I do not want to continue, then it is going to be put on ice. And then we have in our company, we have a pipeline, so to speak. And that's kind of like a two-year plan. So, we are trying to plan two years ahead. And any game that is in the pipeline, we all want to share experiencing and we all need to work on that, even if it is not mine. Even if my brother made a game, I need to try and I need to test it, I need to actively work on it if it is in the pipeline. But before it gets into the pipeline, we all need to agree that it is going to go into the pipeline. This is great, all the discussion happens: Is this a game that we can make? Is this a game we want to wait? Maybe it is good enough, but we need to wait for more partners to be interested in it. Or maybe it is too late. Maybe just the timing. Maybe you know that the timing of Terraforming Mars was perfect. We had the perfect timing. It is not due to us. It just happened to be perfect timing for releasing that game. And if you have an idea that is very time-dependent, like, for example, in this during this time with the "Black Lives Matter" campaign, I can see that a lot of people would probably at this time start making games about Black Lives Matter. And that is a very time-sensitive

thing. If this comes one year after and nobody has heard anything about "Black Lives Matter" for one year, then maybe that is not the right timing. So, we have timing, and it has to be good and it has to be developed enough to be taken into the pipeline. And in our company, all of us must agree, because we have equal and commanding right. There is nobody was a greater voice than the others. We all have to be together to make the game into the pipeline. So, you have to convince your brothers and maybe I do not know if you have any brothers.

**Federico Artusi (Interviewer):** Yeah. One brother and sister probably that is the most difficult part.

**Jonathan Fryxelius (Interviewee):** Yeah, convincing your brother and sister that this is a game worth publishing. That is not easy.

**Federico Artusi (Interviewer):** Especially since they are also making games and thinking of other games. So, everyone has these little children probably that is nurturing.

**Jonathan Fryxelius (Interviewee):** Yeah of course.

**Federico Artusi (Interviewer):** But that is very fascinating. I wanted to ask something on the other side. So, on the players, I know that it is already a rather broad. But anyway, I am trying to make this question. It has two faces. So, the first one, and especially related to the games that you make. Why do people play those games? Why do you think people engage in playing those games since they are usually quite long? But if I am referring to Terraforming Mars, it can be rather long, not super long, but it is still a relevant amount of time. And at this time, you have a lot of other much quicker solutions; apps, digital games that you want to play. I have an answer for me, but I want to listen to you that you are into the business, what you think. Are there some small details? For example, something to really care about, to make a really good gaming experience for people within a game. Some small details like property that you started seeing something in the physicality of the component, can be drawings maybe, or something that really pushes the games to another level.

**Jonathan Fryxelius (Interviewee):** Yeah. Okay. So, the first question, I think most people will have their own fanbase and I think the people that love our games. I think they usually also like the theme that we are telling because we are telling a story and if you like the story or even more particularly if you feel engaged in the story. One of our design models here is that you should be experiencing what the game is about. In a lot of games, you can play the game and never have a second thought about what it is about. For example, Patchwork in Azul. You play the game and afterwards you might not even remember what it was about. But I think that when people play our game, it is like being a part of a story. And this is quite a strong experience. You get engaged in the game. So, you feel like you are there. You feel like you are having an impact. And you feel like you are important, and you can decide the outcome of the game. So, there are a few things that tie in here. First of all, it is "the theme" again, and that is why we focus so much on that. You need to be part of the story. And then it is "the game mechanic" which has to be open enough for you to catch up even if you are behind. You should never get bored with the game and feel like, "OK, this was settled a half an hour ago or an hour ago". You need to be able to decide the outcome of the game. So, it should not be too random. But we are always using randomness because we think randomness is a good part of our normal experience. A lot of the things we experience in real life are out of our control. We cannot control them. They happen and we have to adapt to the situation. So, we always use randomness in some way, but the randomness can never be too big. So, you experienced the game and you have a real say in how the game goes and you are having a good time. Even if it is long, a lot of people say that in Terraforming Mars because you feel like you are contributing to humanity by terraforming the planet. It does not really matter if you win or lose for a lot of people. You still have a really good time. You contributed to humanity and you feel like you have done something important. If you can get that feeling into the players, then I think you are on a good way to making a really successful game where people want to play over and over and over again. That is also a thing: Replayability. We use a lot of replayability in our games. You should not be playing the same game over and over. It should be the same team approximately, but it should turn out in different scenarios. This is also where randomization is a very good tool.

**Federico Artusi (Interviewer):** This is very cool. And actually, you introduced and partially answer to two other questions that I had. The first one I'm really fascinated about games, not only because I like playing and everything, but also because I see that there are some activities in which you can usually have two different outcomes or win or lose. But at the same time, the experience usually is the same. So, you do not really see a negative judgment. Because you do not say that I lost two hours because they engaged in a button and then I lost. So how to transfer these positive sensations to both winners and losers is very interesting to me. And I guess it is again, or the discussion about the theme, making the players, engaged with a game, giving them the feeling of entering the game, living the story. Probably once you finish the story, the specific outcome does not really matter.

**Jonathan Fryxelius (Interviewee):** I think Jacob said this before that if you can make the players feel like they had achieved something, they will not care as much if they win or lose. If you have a battle game and you start with an army and at the end of the game, you have lost your arm and the other play you won. Maybe you did not feel like you achieved anything, you just lost. But in Terraforming Mars, even if you lose, you still have this remembrance that "I've brought down that Moon and I crashed that Moon on to the surface and I did this really cool thing, it doesn't matter. Maybe you won by points, but I get all the credit because I did this. ". Because you had a special city that enables forces. And so, in that way, if you can make the players feel like there, they are achieving something, or they are accomplishing something and that is rewarding in itself. Then they will have less focus on the actual outcome of the game. And I think in Terraforming Mars, it can be called a semi-cooperative game because you all have the same goal. The goal is to make Mars terraformed. And that is why you always work together to make Mars terraform. But it is still a competitive game because you want to be better than the others. And this is a good setting where you can do a lot of things, where your achievements are usually not in contrast to the other ones. You can have achievements on the other players who can also have achievements. And they do not necessarily conflict. Now, you have both achievements at the same time. And that is a very good setting.

**Federico Artusi (Interviewer):** Usually you take different roads. So, in the end, I can say this, this, this thing. And even the fact that you need to you has the same parameters for Terraforming Mars, oxygen, water, and so on. So, you go even with the vandal's expansion, you have a fourth one in which you basically advance on the same track. So, this is also probably contributing to this feeling of making something or together and not directly in contrast with one another.

**Jonathan Fryxelius (Interviewee):** Some of our other games are much more conflict-oriented, and those are they tend to be a much smaller fan base for those games. We like them because we are brothers. We love hitting each other as hard as we can. But a lot of our fans do not like it because you know, maybe they are too altruistic or too peaceful. Yeah, maybe. Or even if, you know, if you are a bad loser, then the winner might feel guilty because he wins so hard. And that is not a good feeling either. Maybe it requires a specific kind of player. And I think that is the case also. You mentioned somewhere before that some people will feel like, you know, if you play a game for two hours and you lose, you feel like it was wasted time. And I have my brother in law and my wife's brother. He is kind of like that. And even in co-operative games where he loves one of the games that I am actually the tower defence game that you try. Yeah. He loves that game. He is one of the biggest supporters of that game. But he as a person feels like if he wins, then he can play in the game for five hours and he wins, and everything is good. But if he does not win, then he feels like the whole game is a waste of time. And that is very strange for me. I do not understand that because for me, playing the game is part of the enjoyment. It is not the win or the loss that decides everything. You know? To me, that is weird because I feel like playing the game is part of the pleasure itself. And usually, I do not care that much if I win or lose. But some people are simply, you know, their personalities decided that if you have such a person, I don't think there's anything you can do in the game that will change that. If the person is like that, then you know it is going to be like that.

**Federico Artusi (Interviewer):** Of course. But I think they are a minority as you talked about, the people that like the experience and theme are much more common. I would say that this super outcome-oriented, the players are the minority.

Another question I have is, once you have a prototype, a game in the pipeline as you said, I guess you start also getting feedback from users. So, I remember that our defence game at the university. Probably you go to fairs and you make people try to game and everything. What do you usually ask the players to understand if you are on the right track or if you need to change something or adopt some mechanics or even the theme maybe?

**Jonathan Fryxelius (Interviewee):** We have a design philosophy where we need the game to be simple or we need the game to be complex in the right way so you can have two kinds of complexity. The first kind is a complexity where the people playing the game, they do not understand how it works. That is a bad complexity. And the other type of complexity is that everybody knows how it works but they do not know how to master it. They do not know how to use it to win. And chess is one of the most famous games in the world, has this motto: "It takes a minute to learn with a lifetime to master." That is like the model of chess. And that is a really, really good slogan. A game should be simple to learn but should be hard to fully grasp and you should not ask how it works. You should ask, how should I do the best for this? How will I win this? And now our games are vastly more complex than chess in the way that it has many more rules because we make strategy games with the theme. So, they do not take a minute to learn. Maybe they take 5 or 10 minutes or in 15-50 minutes to learn. But we still try to make the game easy. So, a lot of the questions we ask are beta testers is: "What didn't you understand and what was hard to understand? What did you get wrong?" We also tried to have them play the game without us explaining the game. They should read the rules and try to figure out how the game works without our guidance, most of the time. So, when one crucial thing is: What did you get wrong? What was hard to understand?". Because in this world, in this culture, we have the attention span of a three-year-old. And if something takes too long to understand then you just drop it. You do not try it again. If you play the game wrong and do not like it, then you do not assume that you have played it wrong. You assume that the game was bad. So, the first appears is actually very, very important. I am not focusing primarily on art. Actually, I am primarily focused on the experience. The first-time experience. "What do you feel when you play this, the first time ever?". That experience has to be attractive. It has to be immersive. It has

to make you want to play again. Otherwise, you have lost. So that is one of the key questions. And then different games have different questions that we already know. I mean, if this game is very conflict-oriented, for example, and we ask, how do you experience this? Is it too much negative player experience to lose in this game? Or does this game work for women or men? Because we are all brothers. We have a tendency of making games that work well for men. And that, I think, is a biological trait. I do not see any sexism or racism that it is just that we are men. So, we make games and they primarily I mean, they will attract men because we make what we like. That could also be a good question. We asked the beta testers: " Do you play with women? What do they think? Are they generally attracted or do they not like this?" So, we want to make games that are attractive to everyone, of course. We also have quite strange philosophy compared to other game companies, and that is we are a multi-talent family. So, we have some people who are really good at painting and some good at different things. So, we are trying to make the games from scratch by ourselves, so we do not hire artists. We do not hire video producers or sound people. We try to make the whole game from nothing to everything ourselves. And that is a very different thing. I do not think anyone else is doing that, almost. Of course, beta testers are supposed to find things, supposed to point things out that they find offensive or not good or unbalanced or anything like that.

**Federico Artusi (Interviewer):** Do you usually look for specific play testers to like women if you think this can be a game also for women or if you feel, for example, we don't have a female point of view since we are brothers. So, we tend to reach to those kinds of people or this game we believe is more for our youngsters and so we look for a younger there is something that.

**Jonathan Fryxelius (Interviewee):** Yeah, if the game has a very specific target group, then of course we are trying to find play testers of a group. Usually, we do not have a specific target group. So usually no. Usually, we are most interested in beta testers that are the talks the most, which gives us the most feedback and has the discipline to play the same game ten times, even though it's not finished. Even though it is not, you know, perfect. They play it 10 times anyway. Just to help us. So, it is much more what kind of person they are. And we have a few groups that we

always ask if they want to playtest on our next game because they are good play testers. They come up with great feedback. But as I said, if we have a specific target group, then yes. But usually, we do not.

**Federico Artusi (Interviewer):** Ok. I have another question that is about legacy games. So, for me, at least, a quite recent phenomenon in the industry. Do you think they have something different or there is some substantial difference in designing those kinds of legacy games? I guess something about replayability is especially crucial in this way and in the end, how do you think you can keep people engaged by playing this campaign?

**Jonathan Fryxelius (Interviewee):** I listened to an interview with Rob Daviau, who made Risk Legacy and Pandemic Legacy and things like that. He talked about the concepts that legacy games are built upon. And he says that it is basically you are breaking a few unwritten or unspoken contract with the player. And I think that was a very cool way of saying it. He says that one of the unwritten rules of gameplay is that the player decides how many times he wants to play the game. And he changes that because, you know, a usual legacy game you can only play once or one campaign where a certain number of times and then it has done. And that is one of the unwritten rules that legacy games break. And breaking this rule. And it means that a lot of people will react. And when people react, it becomes this hype. It becomes this story. It becomes this discussion. So, I think that is one of the reasons why legacy games are so hyped, is because they are so controversial. And another thing is that you as a game owner, you own the components, you do whatever you want with components, but in legacy games, they're the author of the game will tell you to rip cards and put plastic stamps on everything. And so that is also an unwritten rule that you break with a legacy game. And I think he pointed out five things. I cannot remember all of them. I just you definitely can-do sense of that lecture by Rob Daviau on legacy games as a really interesting and things like that. What sets them apart? Well, most of the things. Replayability is certainly an issue. Some legacy games do allow you to continue playing after you have finished the campaign. So, you finished the campaign. And the end of the campaign will leave you with, for example like Gameboard, which you can continue playing on, but it stops changing. I

think that is a good thing. In our company, I do not think we like games where you are supposed to make them a onetime use. We find it wasteful and unnecessarily consumer biased. We do not like the fact that you are putting a lot of money into a product which you can use once and then it is gone.

**Federico Artusi (Interviewer):** I would say that is also one of the major barriers in the market. So right now, we have several examples of legacy games. But I remember when once Pandemic was out, the first time there was this huge debate among customers. That was: why should they spend 45 euros to get a game that I can play the basic scenario, but that is not really what I am interested in, of course, I don't want to throw it away. So, it is quite crucial and central.

**Jonathan Fryxelius (Interviewee):** On the other hand, legacy games, have one thing that other games do not and that is the commitment factor. So, if you are putting out so much money for this, then you have to treat it like a onetime experience. You have to treat it like going to movies or going to a live event with your favorite artists on stage or something. There is something very different with a one-time event or series of events, if it is a campaign and that you do with your friends as a one time and you can never get it back. You just do it one time and that gives you a very special feeling, a very specific experience where you have a really special moment with your friends. So, I guess legacy games have one very cool thing. And that is this feeling of coming together as a group, getting to know each other even better. And it is experiencing this one-time thing together. And that is something I think, that no other usual boardgame can do, not in the same way, at least. So, of course, legacy games are very special, But I think that might also be what makes some people not want it anymore. They want to do something very specific, something luxurious. They want to do something really spectacular. And doing it only once makes it more spectacular in some way.

**Federico Artusi (Interviewer):** Yeah, of course. I also see something that is probably the concept of the story. And this is very similar to your approach. So, as you design games that can be replayed from scratch without any issue with a story,

probably legacy games or so insist on this story-making and engaging in the story thing.

**Jonathan Fryxelius (Interviewee):** Yeah. That is what we like about the concept of legacy games, it almost has to build on the theme. So, it is quite close to our way of thinking. And I am I do not know if you knew this, but I am a circus artist also. I perform with juggling and standing on my hands. And so, I am very interested in how you can give people experiences that they will not forget. You know, engage people in ways that they do not expect, and they will never experience again. And so, one thing I am looking for when I am designing games is how can I make this a new experience, something that they have not experienced before, something that it is actually new.

**Federico Artusi (Interviewer):** How do you define new? I know what the business side of publishing boardgames right. now exploding. So, we have several new board games each year. So how do you define a new experience for users?

**Jonathan Fryxelius (Interviewee):** That's very hard. There is an old saying that says that there is nothing new under the sun. I think it is an I think it is biblical, actually. I think it is King Solomon says that it is not there is nothing new under the sun. And, you know, in a way that is true. It is not possible to make something entirely new. You have to build it on something else. But I think what I am talking about is the combination, which is so new that it does not resemble the others. It means that they say that, oh, this is just new. This is just a new version of chess. This is just a new version of Gambloo. You feel there are some certain kinds of games like Dominion or something that is like another game and Dominion was quite new. The concept of building your own deck during the game was very new. There was a new way of playing a game. And now it has become a pretty normal mechanic. So now people can just say, OK, this is just Dominion in the new shape. And that is an example of something that is not you. If it immediately resembles something else, then it is not as new as it should be. And you can either do this by mechanics and you can also do it in the way of theme. And I think that if you find a theme that is very new, for example, Terraforming Mars, nobody has a game about

terraforming Mars. If you do that, then it might be new. Even though you use mechanics, people know from elsewhere it feels new.  So, there is not much new in Terraforming Mars considering game mechanics. You have a hand of cards; you can buy them through your hand. That is not very usual. But I also think that we do not steal any mechanic that is crucial for other games. Some games are built entirely on a single mechanic. Like Dominion is built on deck building. So, people immediately associate deck building with Dominion. But in Terraforming Mars, we have a lot of mechanics used elsewhere, but we do not take a core mechanic from some other game and just reimplemented, because that would not be new. It would not feel new.

**Federico Artusi (Interviewer):** It is a very good mix of little pieces or different mechanics. I am thinking about center mechanics. In Terraforming Mars, you do not have this mark, let us say. But it is more of a mixture. So, I was just taking some notes. You said a combination. So, it is a combination that is about the theme, is about mechanics and probably in some way emotions that are able to raise the playing with a game.

**Jonathan Fryxelius (Interviewee):** Yeah. I can give an example more from one of my types that I am working on.  I love stress games like real-time games. My brothers do not. They want to be able to think for however long they want. But I want to be fast. I want to, you know, put out cards up as well and do this and do this. One of the things that I really do not like about most stress games is that they are not telling a story. If you look at stress games, usually I would guess that 9/10 stress games, they are not about anything. You just need to match the color, match the shape, match the number, and then you are done. So, you leave all these games? Of course, I still think they are funny, and I think they can be better. So, I decided that I wanted to make a stress game with a theme. I wanted to make a stress game that is told a story. So, I developed a dual game where you are basically sending the Star Wars universe, so we have some copyright issues. If we want to release this, but I made this game as a Star Wars dual game where you are fencing with your lifesavers and you are shooting back pistols and you do this very quickly. I have 10 seconds to do my things and then you have 10 seconds to do your things. And this is what I would call a new combination. I take something that people like from before,

like a stress game, that is okay. But I do something that I have not seen before. I should not say that there are now seems a few years back some stress games that do tell a story. One of my favorite examples is "Escape". We play that one. Yeah. So, all the players they played together roll the dice that there is a stress game and it tells the story. It is a good story. But that is co-operative. I want a competitive game and we stress and that is even harder. So, again, do something you like and do something new with it. Try to feel some niche that nobody does.

**Federico Artusİ (Interviewer):** Is it easier to design a collaborative game instead of a competitive one or they are just two different styles and two different ways of designing games?

**Jonathan Fryxelius (Interviewee):** That's a very good question. I would say that there are different obstacles when you design a co-operative game. I think it is much harder to make it and interesting for all occasions. When you have two players playing out a certain game against each other, they will put pressure on each other and stand for much of the replayability because you're playing against another mind that means that he will act in a different way and you have to adapt. For co-operative games, you usually need to make a game system, which is variable enough to give different experience every time we play it. But at the same time, it should never be too easy or too hard. For example, we got a co-operative game as a gift from another company which wants to make a game with us. And we tried this game and we realized just by calculating that some of the missions in the game were impossible to solve. It would not matter what you did. So, it was impossible. The setup was random. But in some combinations, this randomness led to actually impossible games. And that is a problem. Other games have another problem is that if you know the game well enough, it is not hard enough. You win every time and you get bored with that very fast. So, these are the obstacles that you have when you are doing something where the players play against the game. You have to make the game as interesting as another human being would have been if there was another human being on the other side of the board. That is a major obstacle and that is a very good design task. And that task is nowhere to be found in competitive games

usually. I do not know if I can tell you that it is easier or harder, but it's definitely two different design tasks.

**Federico Artusi (Interviewer):** Yeah, but this obstacle is very fascinating. I just make you the very last question. I remember at the beginning you were saying in Terraforming Mars, it does not depend if you win or lose because you remember something in the game was really radical or important or something. And so, this is common to a well-designed and well-themed game. So, what is the thing that people usually remember the most about the experience.

**Jonathan Fryxelius (Interviewee):** I think I come back to what I said before. I think if you accomplish something, it could be anything in a war game you might lose because you lost all your army. But in this game, if there is a chance that you kill the opposing general, for example, if you have a really cool turn where you get behind enemy lines and you do a completely spectacular strategic move and you manage to take out his leader, but you lost. But it does not matter that you lost because you at least you took his leader. You did this really cool thing. So, that is a good example of a competitive game. But even in a cooperative game, it is the same thing. "OH, I was so satisfied I did this and this and this and this and this. In only 30 seconds. This was really cool, everybody said that is great. Let us play again." It does not matter if you lose because you are having a good time. You are feeling like you are achieving something. You are accomplishing something. You are doing something, and you feel good about it. So, I think that the accomplishment thing is very important. I think also that is why almost every digital game out there, they always have achievements and accomplishments that you unlock because it is such an easy way of giving people the reward part of your brain is getting stimulated. Accomplishment. That is, I think that is the answer.

**Federico Artusi (Interviewer):** Yeah. I would say. Thank you. Yes. You give me a lot of notes and inputs to continue my research. So, I really think you answered almost any questions, so I would not take you out of time. Thank you for your kindness and availability.

**Rob Daviau Interview Transcript**

**Federico Artusi:** My interest, as I told you, it is in legacy games because working on radical innovation, I recognize the fact that legacy is, was at least kind of a new paradigm in board games, and it was something that before 2011, probably with the risk did not exist, it is something that we directly call radical because it's shifting the purpose people to use the board game. Traditionally, probably it was more for achieving something in the short term or closing the experience into a box that is escaping from reality for a limited period of time while playing. I played Pandemic. It is the only one I played by now on the legacy side of games. Playing such a game does not mean only closing the experience to an afternoon or two one, two or three hours of intense gaming. But is something that is going on in every moment of your life, because you are being with someone else, you are not there, you will have another session focused on the same kind of game. So is something that is continuous as an experience. So, I was interested in such a reason because I spoke with some of their colleagues and professors. We believe this is a quite good example of radical innovation in a sector that at least in Italy is rapidly expanding. they think it is quite interesting.

**Federico Artusi:** So, first of all, I would love to hear from your words. What is the legacy game?

**Rob Daviau:** A legacy game is a game that some of the actions that you take place that takes place in one game carry forward to future games permanently altering the game. So, you may change the game component. You may change the game rules, things may come out, things may get added. But there is a transformation from game to game so that starting immediately on the second game you play your game two is different from other people's game two. You start at the same place and then it goes out from there. So that is mechanically what a legacy game is as these changes are permanent. The ideas that you can't just go backward, you know, when you have those blocks where you choose your own adventure and you flip the page, you know, oh no, that's the wrong thing, then you go back. Legacy games are supposed to be that you cannot put your thumb in the book and then go back. And then we use

these mechanics to tell a story to make you feel like you are a part of a TV show or a movie or a comic book or something like that.

**Federico Artusi:** Yeah, that is what I said. This probably is the main difference. So, I felt the concept of this story a lot. So, I am going on and so on. Did you have some? I do not know. We had the reactions of something and thinking more, especially about the effect of, you know, breaking cards, so damaging the game components. What about this? Because for me, the first time was quite tough. I did not notice five minutes before if I would have done it or not.

**Rob Daviau:** If I had to go back and do it again. I might not make ripping cards part of it. Because it is what everyone pays attention to, and it is actually a very small part of the game. If you remember, the first game was Risk. Risk is a very, you know, tough guy, I took your stuff. So, ripping a card in someone's face was felt very much part of the risk. But it was a relatively small part of risk legacy. But it is the part that everyone talks about. Even if Pandemic Legacy seems to. Pretty sure it is to Matt and I are wrapping up three, we just say when something tells you to destroy it, it is no longer needed in this game. Do it what you want. It does not tell you to rip it up anymore. It just says remove it. You can put it in a bag. You can put it on the wall. We are just not it is removed. And we say destroy but it just needs to be removed from play because like a sort of the English expression is that it steals focus. If you're familiar with the expression, but it's like, you know, there's an actor on stage and the actors to be in the background and they're making you know, you're supposed to be listening to this person talk. All you are doing is watching that person ripping cards kind of steals focus from the more interesting things. So, in recent versions, I definitely minimize it.

**Federico Artusi:** So, OK, I have another maybe a tough question, but quite key. If we come back to two thousand and eleven or at least the years before when you were thinking about designing a risky legacy, you saw the first kind of legacy game. What was the industry of games about and why did you come out with such a concept? Which were your reasoning behind? And why were you convinced about the effectiveness, the success of such a new format of games?

**Rob Daviau:** Well, I was convinced about success at all. I have been in Hasbro for ten or eleven years. And the idea just came out of a brainstorm. It had to do with the game clue. Cluedo. I was talking about how they kept inviting these people over for dinner and they kept murdering people like it was every Sunday, someone got murdered, like it was this endless loop and it led to an idea. Well, what if you play clue and then you pick the next game picks up like a week later. What if you start the next game and play? Well, that is interesting because I played a lot of role-playing games. I play a lot of Dungeons and Dragons and that is how it works. You get done for the week and then the next week you are like, all right, where were we? And you just pick up and then you know, you could just fast forward in time with a sentence. You arrive in the city. And I wanted to be. I thought about being a television writer when I was in college. And so, the idea of telling a story through episodes and I have read a lot of comic books and I played a lot of role-playing games, so this was very natural as a way to do it. But I thought, well, this is very radical. Like, how does this work? And do I have the courage to put a permanent sticker right on things, rip up cards? Like what would that be like? Are people going to like it? So, it did not work out for a Cluedo. Hasbro did not want that. And about nine months later, they wanted ideas for risk. And I had a whole bunch of ideas. Only one of them was this idea for legacy. And we are going to do a whole bunch of different things. There was maybe like a time travel risk where cavemen were fighting, Roman legions were fighting aliens. So, then it turned into this risk idea and I thought, well, let us just try it around Hasbro. Let us just see what happens when you have to put a sticker down and you have to write on the board, and you mark things and people loved it. Now, it was also a board game designer who were used to when you are making a prototype and you are like, all right this did not work just like, OK, what is next? Right. You just tear up a card. So, they did not mind tearing a card. They did it right on the board all the time. You are playtesting a game. Take a marker and you change something. And then you wrap things up and, you know, numbers, but they seem to like it. So, I sent it out to some outside play testers. They are like, this is amazing. This is different. I am like, OK, so there is going to be some people who like it. I kind of knew that my time at Hasbro was coming to an end. They were going to move or I just making games that I really did not make. So, I thought, I am not going to get another job in the board game industry because there are no other companies around. So, I want to do

something really different on my way up the door. And I thought that risk is going to be just great. Very different. It is sort of crazy. And I thought that the people who liked it would love it, but that there would not be that many of them. Right, that some people would basically play and go, that was crazy. Most people would go "I don't want to rip up cards". "I don't want to write on it". And so I worked very hard to make this sort of game where I, didn't want to say I didn't care about the success because I wanted people to like it, but I didn't expect it to succeed, which gave me a sort of freedom to do exactly what I wanted.

**Federico Artusi:** That's cool! Can I ask you; you spoke about very enthusiastic comments both from the other guys in the company at first and then from play-testers and so on? And at the same time, you were not so convinced about the success, let us call it. So, the effect of meeting good reviews, having good feedback on your game. So which kind of goodness was this feedback? So, can you give me some examples of this feedback, this kind of why people did love the new kind of game?

**Rob Daviau:** Well, it has been 10 years, so. But I do remember on Fridays at Hasbro Day, we stop work at one o'clock and right after lunch, you have a long weekend. Every week it's great. You work a longer Monday through Thursday and get out early on Friday. So usually Friday morning was the time to play games, sort of a half-day workshop that we can test on Friday. And I was testing Risk Legacy with a couple of people who played a lot of games and we were testing, and they got done one game with a guy. I think that is working. And they looked at each other, said one more, one more. And they went into the next one and they played five in a row and they went well after one o'clock. They played to like three o'clock, like they had families to get to. And these are people who play games all day long and are, you know, are do not they are tired of games, but it is a job. So, the fact that they kept like. All right, one more. I want to see what comes next. I want to get revenge on it. All right. I see what I did wrong. And they were shaping their world. I said when those people stayed late at work. And kept wanting to play on a Friday. I was like, OK, there is something here. I just did not know how many of those people there were.

**Federico Artusi:** That's a signal.

**Rob Daviau:** Yeah, but that was the sign. But if you think about it, a legacy game, I took all of the cool things, but also all of the problems of a role-playing game or being in a band and brought it to a board game, which is OK. We need many people and we need to meet this many time. And he is working, or this person's kid is sick, or you get halfway through when this person does not like the game anymore and wants to play something else. So, I was like, how many people are going to want to play the same game again and again with the same people? Is that a lot? Is that something you get together to play games every week anyway, so it is like, oh, we will play risk like and other stuff every week. We will just play one game. Like I did not know if people were willing to take that much time to it. Again, I know some people would do it. I just did not know how many there were.

**Federico Artusi:** What about, we talk more or less about risk legacy. So, the first kind of legacy games you brought on the market. In two thousand and fifteen, If I am right, you released the pandemic legacy. So, of course, a huge success. I am referring, I do not know in terms of saying and so on. But at least it was a first in the board-game BGG ranking for at least a couple of years, I think so. Quite a huge success in the community. I remember sometimes in which everybody was talking about it. There were people that were saying, I am not sure I want to buy a game that I had to discard once it is finished. How does that work? The first ones that traded there were so enthusiastic about them. So, what changed in between risk and pandemic legacy? And how did you perfection it and then maybe the success that has been industry?

**Rob Daviau:** Well, I. I left Hasbro about a year after risk legacy just because they ended up moving my job. And I started working on the game that became SeaFall. So, I was doing a lot more thinking about the legacy system and what that meant. Then Matt Leacock came to me in 2013 about doing pandemic legacy because he had played risk and thought it was interesting but wanted to work with me. I was pretty sure it would not work as a cooperative game. I was a percent wrong; it works

much better as a cooperative game. There is a lot of things you do not have to figure out with a cooperative game about a legacy system. But I just been working on risk and I have been working on SeaFall, and it was very competitive. But I was new outside of Hasbro. And so, I thought it would be a good chance to work with someone and maybe get a boost. But now we had no idea how to do that well, I mean, we started. Matt and I worked very well together, and it just came together. It just came together. Was the type of thing that I finished season one of pandemic legacy, well, before I finished SeaFall. Felt like it just is probably the fastest game I ever did because there were some players and that it went very fast for a game of that complexity. It was 13 months from our first meeting until we were done, and we had to figure out a lot of things along the way and tested and revised and balance it. We did not have to do is go backwards much. January, February, March working. And then April, May, June. And we never got to like August at all. We have to go back to March. We made a mistake.

**Federico Artusi:** That's really interesting because from my perception, of course, building legacy games with the story behind, so connections among them, let us say the months would be quite harder probably intuitively.

**Rob Daviau:** Well, when we decide we go back and forth, we think of the mechanics or the mechanisms. All right. Like in pandemic legacy, you know, what happens if a disease became untreatable, you could not cure it and you couldn't even treat it? Oh, that is interesting. And then you said you play pandemic legacy, right?

**Federico Artusi:** Yeah, the first season.

**Rob Daviau:** Okay, he had this idea, like, what if it becomes like they are no longer disease vectors are actually infected people like monsters or zombies or. OK. So, we knew somewhere along the way that would happen. So first you set up one problem. It is hard to treat. And it is hard to cure. Then it turns into monsters. And then we started thinking, just like movie writers. Well, OK. The world would probably react poorly, and the military would get the ball. That is interesting. So, you could have some roadblocks and some quarantines. But we did not have the whole story. We

just had the pieces. And what we usually do is we get to like April or May in a story and then we start thinking, well, how does this end? What is the end story? What do we want people doing at the very end? Sort of like, oh, at the very end. Yeah. You get a vaccine and you can finally treat it right. So, in the end, we say we want you to get a vaccine around October, maybe November, and then the last couple of months, it is a race to vaccinate as many people as possible. So, get that. And then we have the middle. We say, all right, we need to explain how you learn how to get the vaccine. All right. And then we are going to maybe go on these little quests like a video game. You need this piece of equipment and this gene sequence. And then someone said, I will be more interesting if you are finding people, not tangs, right. You need to find a scientist or dissipation. That is more interesting to find people. So, and we came up with the idea that starting in June, like June, July, August, September, you are finding now we have three X like a play.

Right. You set up the problem and you have this big moment where now there is zombies and then you learn how to solve the problem and you spend a middle act looking for pieces to solve it. And then in the last act, you solve the problem. And then we started like writing back and forth, like, well, we were actually, the movie Captain America The Winter Soldier was out at the time where you find out that Hydra has infected Shield. Robert Redford's character was like the head of Shield is actually working as a hydra. Like, would not it be interesting if you were working for the bad guys all along like if there was hydra in your organization like that would be interesting. So, who is this person when you read the cards, it is telling you what to do? What if that person was a bad guy and you were just following orders? Do you think the person on the cards is us, the game designers? But what if it is someone who has an ulterior motive? What would that be like? Oh, that is would be good. We start putting it in and we write cards. And really, at that point, all you have to do is go back and rewrite the first card. You need it every month for the most part. Right. And then you set it up like, well, what if we say something in April where if you go back and you read it again, you're like, oh, that sounds scary. Now that I know what it is. And so, there are only 12 cards that I have to write. I do most of the writing stories together. Then there are some things you open and some other things. But mostly,

you know, the rest of the cards are like "take this out", "put the sticker here". And then the players write the story.

**Federico Artusi:** Yes. That is really fascinating. So, in some way, you leave some space open. So, you mentioned the fact of writing a novel. But, of course, as you are telling me now, as I experienced the game, this kind of experience leaves you, as a player, creating your own story, right? Yes. Is this part of the value?

**Rob Daviau:** Oh, yes. Very much part of the value. If I just tell you a story. You have read a book. I give, Matt and I or whoever I am working within the legacy game, the designers give you all the pieces to the story and they have to be obvious. I have to put you in a world that you know. So, you have to know, "Oh, we're treating a disease", "Here comes the military", "oh roadblocking people", "Cities are rioting" like I have seen this movie. I have seen this TV show. I have been here. I know what it is. And then you name the characters and you decide which cities are burning. And then you make jokes when you are playing like "Paris is burning and like I never liked terrorists, anyway, take that croissant!" I did not tell you to do that. I did not know Paris was burning. But then you have this little story. And the relationship between characters was there like I named a character. You named a character like this is my ex-wife. Right. Like, oooh no my ex-wife is here. Like you have seen that movie as well. We are also the person who comes in and the main character roles. I was like, well, like we used to date. Like what? Like. Like you just this does not work if you have not seen all these TV shows and movies about, you know, about a disaster. So that is our job is to give you all of the pieces to tell a story. And so, every time with a legacy game and I try to be too serious with it, which was which happened to Seafall, I am going to tell a story. And it is like I have to tell a comic book or a superhero like a summer blockbuster or a comic book like that is the level of the story. And everyone knows what we are talking about. And put a few twists to make it different. But mostly you just give people the obvious things and then they write their own story.

**Federico Artusi:** Yeah, that is really interesting. And they can imagine it is so, so very stimulating in terms of game designing. So especially if you were passionate about writing and telling stories, this would be amazing to work on it.

**Rob Daviau:** Yes, I am passionate about telling stories and I cannot draw, so I often write. But I am not a novel writer like I am very happy if people come in and rewrite my stuff. Some of it I like. Most people like there is a better way to say this, like.

**Federico Artusi:** Yeah. Do you have some? As for the question for risk, which was the difference, if there was any, in the feedback comments he received from Pandemic. Probably, Pandemic legacy success was huge. But do you think the audience, the players were different categories of players or not? Did you receive different feedback? So, did you recognize some differences in the two games or not between risk and pandemic. I am trying to keep the first one and the most recognized and successful one, at least the first season.

**Rob Daviau:** They were very different audiences. Pandemic is more casual, confrontational. There was more of a story, risk did not have a complete story. It just had to open another box and there would be another comic book moment, aliens. But the aliens where they had flying saucers like it was the 1950s. I did not want to I did not treat anything very seriously at risk. It was just a series of cartoon moments. Because the game itself, even though it is confrontational, is. That was a very old-fashioned risk, so I wanted the story to be old fashioned, but I did not really think about what I could tell for a story. And then Matt and I came up with the idea of a legacy like, hey, we are just going to guide you, you are just going through a deck of cards on a fixed order. Oh, well, now we can. Now we have got a book. Now we can tell a story. But I think that the pandemic audience is more casual. More couples. It plays well with two. You can have a more a smaller, more intimate experience. In Risk, you need three, four or five, really, to make it work. You need a larger group and it is more. Get him. Take that at war. Like the idea. You are a general. So, Risk simulates a cartoony war movie and pandemic is simulating a summer blockbuster medical thriller and different people would play those games. You can tell, I think, very cinematically about these games.

**Federico Artusi:** Yeah. So, in order to keep it not too long, I am trying to ask you another question. The answer would be something that you already said, probably. But, you know, we as the researchers who want there are ways to receive this specific answer. So, I think we are quite obsessed with why people should use the product or service. Of course, they are new. They are radical. But if there is not a why probably they would not meet success. So, if you would suggest someone to play legacy games, maybe we can refer more directly to Pandemic than Risk. Why do you think people love to play?

**Rob Daviau:** Well, people like a story. I mean, that is quite human, I mean, I'm not an anthropologist, but humans have been telling stories for a long time, whether they're painting pictures on a cave or coming up with their myths for their tribe. Board games sometimes tell a story within the game, but it is a short story. And legacy games give you a chance to have a whole season of television. Also, in board games now it is always about what is next and what is new. You play a game once you go "I played it" like they are supposed to be. I do not want a disposable game. The interesting thing is they are choosing not to play them or so in the legacy game sing when you are done, I am choosing when you are done. And there is this shift about who chooses how many times you can play the game is just the player or the designer? And that is the thing that I think bothered people, is I made that decision forum and up until now, it had always been the player's decision. I could play this game every day for the rest of my life. Give it to my kids and they could play for 50 years. Now in the legacy game, that is my decision. You are playing at 15 times and that is disruptive. Yeah. But why would they play it? I think what happens is, you play a game to learn something new and see how these systems work and gain mastery over them. And a lot of games right now, a lot of people play a lot of games, can play a game once and feel that they have played it. They have understood the systems and they somewhat have gained enough mastery that if they played it a second time, their thrill of learning something new would be much slower. They would already have integrated and internalized the systems. And now they are just looking to sharpen their skills to get a little bit better. And so, with a legacy game, we try to always give you not only narrative, but here is a new rule. Here is a new way to play. And we often give you something at the end of the game that you have not tried yet.

Like, oh, we got to buy these new powers. We got this one new rule and it should sit there. And I want to play this game because it feels new again like we are only changing a little. But it feels new. It feels new. It feels new. So, it feels like you are playing 15 games that are not brand-new games each time. It is like just knew enough that it is exciting to play. Know, like playing the same game again. And one thing I have noticed with legacy games, you do not make those changes often enough. And if people play two games in a row with the same rules set, it is not changing. Like to get very upset that it is the same game, two games, or even up to every other game. It is the same game every time you play it. So that was the learning to make sure that the new material is coming in. So, between that chance to play something new and find out what happens in the next chapter. I just want to keep people coming back for one more. And then when they get about halfway through, hopefully, they are invested to see how the story ends, to see how they did. how. I think we are doing well. I want to see if we can keep playing it well. That is what we are trying to do. Some people say, well, you can only play fifteen times. That is what I tried to make a game that you want to play 15 times because most games you do not want to play fifteen times. Yes. There is no 16th game. So, the price of making 15 games that you want to play is that there is no 16 or you buy a different game that you could play 400 times, but you will play twice.