
Service experience gamified: a study on convergence of gamification and contemporary service experience

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Abstract: Gamification has gained significant attention in the last decade, both, in academic and service marketing domains. The application of gamification in service marketing, especially in the service experience domain has shown promise in terms of user adoption and engagement. However, there is a dearth in academic literature on adoption of gamification in servicescape, and integration of the gamification and service experience streams of literature. This paper aims at achieving multiple objectives starting from integration of gamification and service experience literature, as well as building a set of motivation drivers for gamification, and a process structure for service experience with the help of extant research. The paper is based on a systematic literature review of 53 papers in the areas of gamification, and service experience. The paper then compares the gamification phenomena and service experience processes to extract motivation drivers, and process structures for gamification and service experience respectively. Finally, a convergence framework for gamification and service experience is discussed that shall help service practitioners by driving adoption and utilisation of gamification effectively for shaping improved service experience.

Keywords: gamification; service experience; service marketing; gamified services; service-dominant logic; SDL.

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1 Introduction

Gamification has moved on from being a buzzword to a credible application tool, and has been lapped up for research as well as in business application alike (Noorbehbahani et al., 2019; Patrícia and Morosumi, 2018). The growing evidence on interest in the industry to use ‘gamified’ products and services, points towards a strategic shift in favour of gamified applications. Application of gamification in domains like healthcare and fitness apps like Fitbit and Nike+, automotive applications like ZeroEmission (Muntean, 2011), personal management applications like EpicWin and Happify (Kim, 2015), and finance application like Robinhood (Heide and Želinský, 2021) emphasise the growth in these application for various services owing to greater customer engagement (Helmefalk and Marcusson, 2019).

Incahnman et al. (2019) argued that rise in gamified services can be explained by the higher adoption of entertainment-loaded features by these service applications that enhances the engagement. Heide and Zelinsky (2021) supported this claim by positing that this can be achieved by inducting game-like elements into non-game products and services, thus making service applications more enjoyable and engaging.

Despite growing industry application of gamification many researchers believe that academic studies in this area have not been able to catch up (Terlutter and Capella, 2013; Thorpe and Roper, 2019; Helmefalk and Marcusson, 2019). Huotari and Hamari (2017) and Hamid and Kuppusamy (2017) expressed the same while arguing that while some bit of empirical research is accumulating in this area, the conceptual advancement of theories and multi theory associations are largely inadequate. The level of research in this area has often been dubbed as nascent and often, in isolation (Helmefalk, 2019). The mere fact that basic definitions of Gamification are still being proposed by researchers testifies this nascence known researchers in this field (Marcusson, 2020). Koivisto and Hamari (2019) posited that research in this area has advanced without an agenda, theoretical guidance or a clear picture of the field.

The service experience domain of service marketing has advanced both academically and practically. The advent of service-dominant logic (SDL) proposed by Vargo and Lusch (2004) compelled researchers and practitioners to relook how services were being defined, explored and researched. The SDL introduced many concepts including the idea of co-creation in a service interaction, and value proposition and realisation that paved way for studies that built on these concepts later on. It brought spotlight on various service elements, including the service experience, by reminginig them in service domain (Becker and Jaakkola, 2020; Jaakkola et al., 2015). It led to exploring of different perspectives in service experience, which called for studies to look at the domain with different contexts and associations (Gentile et al., 2007; Verhoef et al., 2008). However, only a limited number of studies have been done to address the highly topical context of service business (Still et al., 2018).

Studies have also attempted to connect the service marketing literature with the gamification literature (Conaway and Cortés Garay, 2014; Hamid and Kuppusamy, 2017) in past. However, these reviews are often related to the overall service marketing concepts and how gamification can be applied in services in general (García-Magro and Soriano-Pinar, 2020).

They fall short of discussing the application on specific service marketing concepts like service experience and service design (Patrícia and Morosumi, 2018).

Thus, various gaps were identified with regards to the integration between gamification and service experience literature, and how these two blend together to create fruitful service experience for customers. Thus, this paper aims at achieving multiple objectives –

- 1 consolidating of studies on gamification and contemporary service experience
- 2 generating a set of motivation drivers for gamification, and a process structure for service experience with the help of the extant research
- 3 demonstrating the convergence between gamification and service experience.

The paper is based on a systematic literature review of 53 papers in the areas of gamification, service experience, and combination of the two. These papers were extracted from Scopus, Web of Science, and Science Direct, while majority of them came from Scopus Indexed journals. Further, papers from the service experience domain made majority of the selection, but we consciously chose those papers which studied service elements that influence a given service experience. Each of the paper was categorised based on themes within gamification and service experience areas. Subsequently, the literature was consolidated within each area, before comparing the gamification phenomena and service experience processes to extract motivation drivers, and process structures for gamification and service experience respectively. Finally, a convergence has been established using specific elements of gamification motivation drivers which are capable of influencing service experience process.

2 Gamification: evolution of theories and application

From the early 2000s gamification and its application have been topics of much interest in the academic and business community alike (Deterting et al., 2011a; Hamari and Lehdonvirta, 2010; Marcusson, 2020). Gamification has been touted as a game changer in the domains of customer engagement and service improvement (Huotari and Hamari, 2012; Marcusson, 2020). Its application has been of special interest in areas like higher user activity, social interaction, and encouraging productivity of actions from the customers side (Hamari, 2013; Noorbehbahani et al., 2019).

Thus, gamification as a concept and application, is believed to have potential in enhancing customer engagement (Zichermann and Cunningham, 2011; Thorpe and Roper, 2019). The further sections discuss the conceptual evolution of gamification, contexts and definitions proposed for gamification, and the motivation drivers of gamification extracted from the existing literature.

3 Conceptual evolution of gamification

While researching on the historic origins of gamification, Deterting et al. (2011b) argued that gamification has connected an extant body of concepts and research in human computer interaction (HCI) in game studies with outside world. Growing practical application of ‘gamified’ systems and processes in a wide range of domains like productivity, finance, health, education, and sustainability has prompted new lines of inquiry, both in the HCI domain as well as the potential target areas of the application. (Helmefalk and Marcusson, 2019). The application of gamification in mobile services

like Foursquare and Nike has been seen as important use cases of gamification becoming natural to future internet applications (Huotari and Hamari, 2012; Patrícia and Morosumi, 2018).

Early on, the idea of enriching user interface to make it interesting and engaging was posited through HCI by researchers like Carroll (1982) and Malone (1981). As the field expanded, the research on the application of gamified systems extended to areas like hedonic attributes (Hassenzahl, 2003), motivational affordances (Zhang, 2008), pleasurable products (Jordan, 2012), and pleasurable experiences associated with gamification. Among these studies, the study of pleasurable experience was researched further by Costello and Edmonds (2007), which branched out to the core service experience as we know today. With the advent of 21st century, rise of digital platforms has led to adaptation of game systems. Thus the idea of gamification extended to being a form of interactive game system that is used in platforms aimed at application beyond entertainment (Ritterfeld et al., 2009; Marcusson, 2020). The next section details definitions of gamification as proposed by various researchers.

4 Defining gamification

There have been a number of studies conducted on defining the idea, and subsequently the definition of gamification. Huotari and Hamari (2012) defined gamification as a process of enhancing services to offer gameful experiences to the customers. This is achieved by offering motivational affordances that help in altering the customer behaviour (Hamari, 2013).

The first time the term ‘Gameification’ was used was in 2002, when Nick Pelling coined the term while designing a user interface laden with game-like features for commercial electronic devices (Growth Engineering, 2019). But the first time the word went on record was when Bret Terrill in his blog article used the term, and the first formal definition for gamification was proposed that stuck with the researchers for long. This definition as given by (Terrill, 2008) was – “*Gameification referred to taking game mechanics and applying them to other web properties to increase engagement*”.

While this definition found the basis of the further research in the field, the spelling was adapted to ‘gamification’ from ‘gameification’ as the usage of the term increased. Deterling et al. (2011a) in their seminal research on gamification argued that gamification could demarcate three seemingly similar but distinct aspects of the process – gamefulness, gameful interaction, and gameful design. Equipped with this insight, they proposed an updated definition of gamification as – “*Gamification is the use of game design elements in non-game contexts*”. The key differences in the definition proposed by Deterling et al. (2011b) as compared to the one given by (Terrill, 2008) were the words ‘game design’, ‘elements’ and ‘non-game contexts’. Among these, the ‘non-game context’ leads us to the discussion of ‘experience’ with a service. Adding the joy of use, and thus improving user experience represented design goals for services as gamification was introduced to these services.

More definitions were proposed for gamifications built on the foundation laid out by Deterling et al. (2011a). The American Marketing Association defined Gamification as – “*the process of applying the psycho logical and sociological factors that drive intense game play to consumer measurement*” (Donato and Link, 2013; Conaway and Cortés Garay, 2014). Huotari and Hamari (2012) argued that the experiential conditions that are

unique to games are not discussed in definitions. Thus, with emphasis on experiential conditions that are unique to games, the researchers deliberated on service-rich concepts of service, service system and service package, and then equated games as being their own service systems.

Finally, a definition was proposed which was in context with the user experience – “*Gamification is a process of enhancing a service with affordances for gameful experiences in order to support user’s overall value creation*”. This definition thus expanded the scope of traditional definitions of gamification, and laid specific emphasis on gameful (service) experience, and value creation. Pierce (2014) identified gamification as a business strategy which applies game design techniques to non- game experiences to drive user behaviour favourably.

Thus the growth of the gamification domain has seen a wide range of perspectives which saw different definitions being proposed by researchers. Various underlying motivations for using gamified systems, along with elements of gamification have also been studied by researchers, which eventually expanded the scope of the subject matter. The next sub-section looks at these motivations and elements.

5 Underlying consumer motivations influenced by gamified applications

Gamification, among other things, is useful in influencing the customer intention by enhancing the usefulness and ease of use of an application. This is in line with the findings from the technology acceptance model (TAM) (Davis, 1989). Thus it is important for the gamified application to be easy and useful to influence the customers positively. Deterding et al. (2011a) argued that the perceived usefulness of a gamified application leads to perceived enjoyment and perceived socialness. While perceived enjoyment is defined as the degree to which a person thinks that interacting with such an application is enjoyable, perceived socialness is assumption of the application being laden with social network and connection features (Prendinger et al., 2004).

These findings were further reinforced by Chou (2014) where through the octalysis framework, the author explained the human-centric gamification design framework. The underlying premise of the framework was based on the hypothesis that if there are no core drives present for the customer, then there is no motivation and no behavioural action. On the same lines, Rodrigues et al. (2016) argued that a critical driver in adoption of gamification is its ability to influence the intrinsic and extrinsic reward functions of customers, which shall lead to pre-defined favourable behaviour.

Thus, gamification attempt to trigger these reward functions by engaging users, increase their loyalty and also solve the behavioural outcome problems associated with this process (Marcusson, 2020; Zichermann and Cunningham, 2011). The persuasion for this is often in form of gamification elements that invoke desire by providing incentive, challenges, and rewards to the customers which help in generating engagement as well as stickiness with the gamified application. This is a part of intrinsic motivation of the customers which exists in continuum (Zichermann and Cunningham, 2011). For converting the extrinsic motivation to the intrinsic one, the extrinsic motivator must be considered as meaningful, pleasurable, and consistent with the customer’s worldview.

This can be achieved through suitable rewards linked to the application (Helmefalk and Marcusson, 2019). Huotari and Hamari (2012) identified three primary categories of game related motivations – immersion-related, achievement-related, and social

interaction-related dimensions. These categories acted as guiding light for development of certain key elements of gamification as discussed in the next section in detail.

Apart from the motivation, gamification also attempts at altering the social association between the application and customer (Huang and Zhou, 2021). A higher socialness results in heightened intentions of usage by the customer, and thus gamification's intervention in this direction is strategic in nature (Helmefalk, 2019). On the same line, social cues have been known to provide avoidance motivation, and social interaction through the users, which also explains gamification's attempt at curating social cues from a gamified application (Ellison, 2007; García-Magro and Soriano-Pinar, 2020). Thus enhanced social interaction and socialness are key drivers in gamification, by building social influence and perception of resulting benefits for customers (Hamari et al., 2014b, 2014a). Finally, ease of use, as explained in TAM has strong influence on usefulness, enjoyment and intention to use gamified business application (Van der Heijden, 2004; Davis et al., 1992; Inchamnan et al., 2019).

As from the organisational point of view, adapting to gamification strategy can be a rewarding proposition. Gamification has been found to positively affect brand attitude (Terlutter and Capella, 2013; Yang et al., 2017), brand awareness (Lucassen and Jansen, 2014), brand engagement (Berger et al., 2018; Robson et al., 2016), brand involvement (Nobre and Ferreira, 2017) and brand love (Hsu and Chen, 2018). In the further section, underlying elements in a gamified system are discussed, that help in motivating users towards adoption and engagement.

6 Elements of gamification

One of the critical aspects of gamification that forms the basis of underlying elements of gamification is affordance. It leads to building of gamified properties like points (Cheong et al., 2013; Koivisto and Hamaria, 2019), leader board (Domínguez, et al., 2013), badges (Anderson et al., 2013; Denny, 2013), rewards (Downes-Le Guin et al., 2012) and challenges (Cheong et al., 2013), etc.

In the game design literature though, these features or elements of gamification are not looked at in isolation, but as distinction made based upon the approach for engagement of each of these features. These elements find their motivation in the three primary categories of game related motivations identified by Huotari and Hamari (2012) and Kovisto and Hamari (2019) as discussed in the earlier section. Xi and Hamari (2020) identified 13 gamification features which together comprise the overall affordance of the gamification system. All the features related to the user profile are known as immersion-related features. These are avatar or virtual identity related, customisation and personalisation features, and achievement features.

Achievement related features are those which are won as a part of the game, on completion of certain tasks. For example, badges, medals, trophies, virtual currency or coins, points or scores, status bar or progress, level achievement or milestones, leader boards or ranking systems, etc. Finally, those features which brings in the team or community perspective, and social competition that involves a social network are social interaction-related motivation based elements (Huotari and Hamari, 2017; Koivisto and Hamaria, 2019). Co-production as well as simultaneous value creation is an inherent process of gamification, which is active every time the underlying service is being consumed (Marcusson, 2020). Player's skills, previous experience, and knowledge play

an important role in accessing and exploring different features of the game or service process (Hamari et al., 2015).

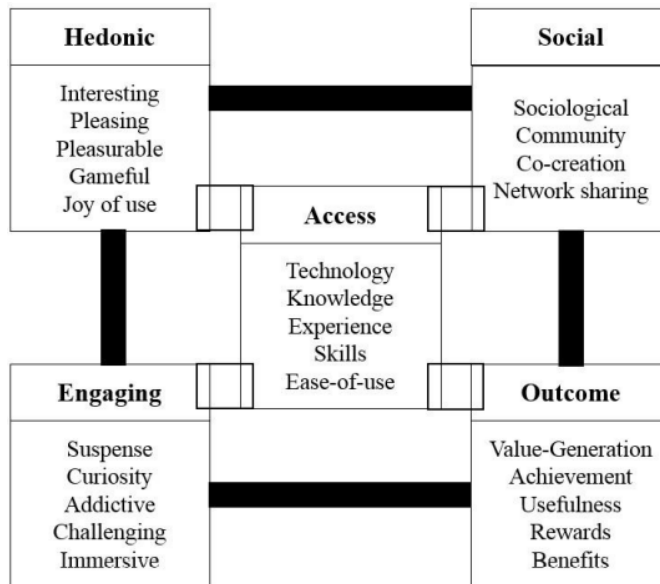
The motivational affordances are trusted with provoking the users' motivational needs and thus affect their psychological states (Zhang, 2008; Jung et al., 2010; Hamari, 2013). These psychological outcomes further trigger the behavioural outcomes, which leads to action and value creation of gamification. Thus the affordance of the gamification system invokes psychological states and emotions.

Thus a series of gamification elements, or affordances are present in a gamified service to instil customer motivation. The further section attempts at consolidating this information into a thematic representation of gamification motivators and enablers.

7 Thematic representation summary of gamification motivations and enablers

A comprehensive review of literature around gamification, and its motivational drivers resulted in identification of a number of factors which were then consolidated into a thematic structure. The factors were segregated into drivers and enablers.

Figure 1 Themes of motivation drivers and enabler for gamification



The classification thus created had four drivers – hedonic, social, engagement, and outcome, and one enabler – access. While Hedonic drivers aim at making the gamification process pleasurable for the customer, social drivers relies on the ability of the customer to co-create and collaborate with the service provider, as well as with the community member and other customers. It is critical for the gamified system to engage the customers meaningfully and in totality. Thus, elements like suspense, challenge and curiosity are used to make the design immersive for the customer.

Monetary benefit as well as value perceived by the customer are considered helpful in motivating the customers through interaction. This forms the fourth driver for gamified services, outcome motivation. With all these drivers, ease of access is critical for success of a gamified application. It is also important to ensure that an entry barrier is not created for potential customers due to the requirement of complex additional skills to traverse through the system. Any such requirement will have an adverse effect on the motivation of the customer to adopt the service. The motivation drivers and enabler for a gamified service have been shown in a graphical view in Figure 1.

The further sections discuss the evolution of literature on service experience anchored to the – SDL view.

8 Service experience and drivers

Service experience is often called the core of the service offering and service design (Zomerdijs and Voss, 2009). It is the sum total of all experiences that a customer accrues at every single encounters between a service and a customer (Zeithaml and Bitner, 2003) thus making it a true reflection of the customer's overall service journey. The definition is also extended to the product side in line with the service-dominant logic (Vargo and Lusch, 2004) that contends that all businesses are service businesses (Helkkula, 2011).

Various researchers have attempted to explain service experience with varied contexts like service characterisation (Helkkula, 2011), service co-creation (Carù and Cova, 2015; Grönroos, 2011; Jaakkola et al., 2015), and community-scape (Arnould and Price, 1993; Aubert-Gamet and Cova, 1999) to agree on factors influencing customer satisfaction with the service experience. Giovanis et al. (2016) in their research concluded that that satisfied customers are critical for service providers as they are committed and ready to invest in the association with the service provider.

Berry et al. (2007) suggested that a service experience is influenced by the technical performance of the service (functional clues), and the tangibles associated with the service (mechanic clues). These cues influence both the rational and emotional perceptions of a service experience. This is in line with studies conducted Rose et al. (2012) and Palmer (2010), who conceptualised service experience as a psychological construct which is an outcome of customer's interaction, and cognitive ability.

These insights have led companies to design services that are experiential in nature to offer not just the core service, but also the overarching service experience with the encounter (Giovanis and Tomaras, 2016). Schmitt (1999) argued that experiential focus is a result of companies' persistent attempt to explore customer's senses, feelings, thinking, and action related to relevant triggers. The importance of such experiential focus and thus a positive service experience created for the customers was based on various studies which showed that creating positive experience for customers is a credible source of a competitive advantage (Berry et al., 2002).

The further sections discuss various contexts in which service experience has been studied, and how each of the context added to the service experience literature under the overall service marketing domain.

9 Service experience characterisation

Service Experience has been identified as a key concept explained in the Vargo and Lusch's (2004) proposal of the service-dominant logic (S-D logic) which regarded service as a basis of all businesses (Schembri, 2006) and helped build newer concepts in the area of services marketing. Service experience is often considered as an inherent part of the consumer purchase behaviour (Bolton et al., 2006). Holbrook and Hirschman (1982) proposed characterisation of service experience way back in 1980s, but it was found to be relevant by Helkkula (2011) as recently as in 2011 for contemporary studies.

Helkkula (2011) further proposed service experience characterisation on the basis of experiential and phenomenological terms. These were –

- 1 phenomenological characterisations, where service experience is considered as a phenomenon
- 2 process based characterisations, where service experience is seen as a step-by-step process
- 3 outcome-based characterisations, where service experience is measured on outcome attributes.

Within these three characterisations, the phenomenological is related to S-D logic and interpretative consumer research (Helkkula, 2011).

Service experience is the internal and subjective response that customers have to any direct or indirect encounter with a company (Meyer and Schwager, 2007a). It is formed by anything perceived by the customer for its presence or absence from the service encounter (Berry et al., 2007; Arnould and Price, 1993). This view of experience being internal or subjective is in line with the service logic (Grönroos, 2000; Grönroos and Voima, 2013), and service dominant logic (Vargo and Lusch, 2004). Helkkula (2011) observed that phenomenological view of served experience is the most credible one, since it acknowledges interpersonal interaction as an important trigger, and considers experience as inherently social and subjective.

When seen as a process, service experience creates customer's cognitive, affective, and behavioural responses, which together make a mental mark, or a memory that is stored as a memory (Edvardsson et al., 2005). Further, Menon and Bansal (2007) argued that service experience is related to consumer cognition, expectations, emotions, which is in line with the idea that the service experience is a subjective and individual-specific concept (Schembri, 2006).

10 Service dominant logic (SDL) perspective

Historically, marketing was focused on operand resources, and primarily goods, as the unit of exchange between two transacting parties, which was called as a goods-centred view (Vargo and Lusch, 2004). Service aspect of the transaction was often assumed to be immaterial and at best as a support to the overall marketing effort (Fisk et al., 1993), and it was assumed that the real value of the marketing lied with the product only (Shaw, 1994). Thus the utility of the transaction was assumed to be locked in the product only. This was challenged by quite a few researchers later, but Dixon (1990) was much vocal in this misrepresentation of the concept of value, and utility, and called for an overhaul in

the study of the process of generation of utility in a marketing process. In response to this call, Vargo and Lusch (2004) suggested some pointers to lead the marketing fraternity to the service-centred view of marketing. Among all the pointers, the idea about cultivating the relationships with customers to create a competitive value proposition, imbibed in it the idea that service plays an important role in the overall value offering.

Further, service-centred marketing is not only about the customer-orientation, but is also customer-centric (Sheth et al., 2000). Thus, the resulting service experience is a function of customer collaboration and being adaptive to the changing needs and aspirations of the customers. The other major divergence for service marketing from the traditional product-centred marketing views was about the value proposition by the service firms (Gummesson, 2008). Vargo and Lusch (2004) posited that an enterprise can only offer a value proposition, but it is the consumer who must determine value and participate in creating it through the process of co-production. In the next section the idea of value through the co-creation point of view anchored with SDL is discussed.

11 Co-creation point of view

The customer's role as co-producer of a service has been thoroughly studied in service marketing literature, especially after Vargo and Lusch (2004) proposed the service dominant logic. Verleye (2015) in her research invoked the social exchange theory which suggested that when people put more time and effort into an activity, like in case of co-creation, they are strongly motivated by the expected outcome and returns. She further drew from the gratification framework, where Nambisan and Baron (2004) argued that customers who co-created a service offering looked at hedonic benefits, cognitive benefits, social benefits, and personal benefits.

This was further extended by Fuller (2010) who argued that customers expect intrinsic playful tasks that result in hedonic benefits, opportunity to keep up with new ideas, and develop skills, i.e., cognitive benefits, opportunities to connect with like-minded people, i.e., social benefits, and self-efficacy and recognition, i.e., personal benefits. Caru and Cova (2015) came up with their own classification of service encounter that results in service experience, which discussed the active role of customer in a service encounter and co-creation aspect in detail.

Several other studies have shown association between the co-creation and other marketing aspects such as value creation (Hamidi et al., 2020) customer expectation (Bagherzadeh et al., 2020), customer satisfaction (Meuter et al., 2000), service value perception (Gummesson, 2008), value creation (Prahalad and Ramaswamy, 2004a), and service outcome (Oliver, 2000). The extent, and role of co-creation on these behavioural and outcome variables in turn is dependent on the past knowledge of the consumer, as well as their willingness to participate in the service offering by co-creating (Rodie and Kleine, 2000; Bagherzadeh et al., 2020).

Co-creation has ability to create unique service experience moments for a customer that may ultimately unlock sources of competitive advantage for the service organisations. It is implemented through a joint effort of organisation and the customers, that starts from joint problem definition and goes on till building of a personalised experience for the customers through co-creation (Prahalad and Ramaswamy, 2004b). The interaction and value creation can happen anytime and anywhere in the customer journey process (Prahalad and Ramaswamy, 2004a).

Co-creation runs through stages of service process like ideation, design and development too (Bolton and Saxena-Iyer, 2009; Mustak et al., 2013) along with the service encounter stage. It helps the service organisation to gain through a closer interaction with customer, that helps unearth customer needs effectively (Fang et al., 2008). As for a conducive information for effective co-creation experience, Verleye (2015) argued that it depended on elements of the co-creation environment, such as technology, and access. Presence of effective online tools that aid in achieving a co-creation task, along with the availability of help from the service provider and other customers, if needed, are key factors in weaving an effective experience through co-creation.

The SDL also emphasises on the idea of value generation in community which affirms that both individual customers and the community in a service experience are co-creators of value (Gummesson, 2008; Vargo and Lusch, 2008). Co-creation in this case, is the process where customer in a community collaborate, or participate, in creating value for self as well as that of the community (Pongsakornrungrasit and Schroeder, 2011).

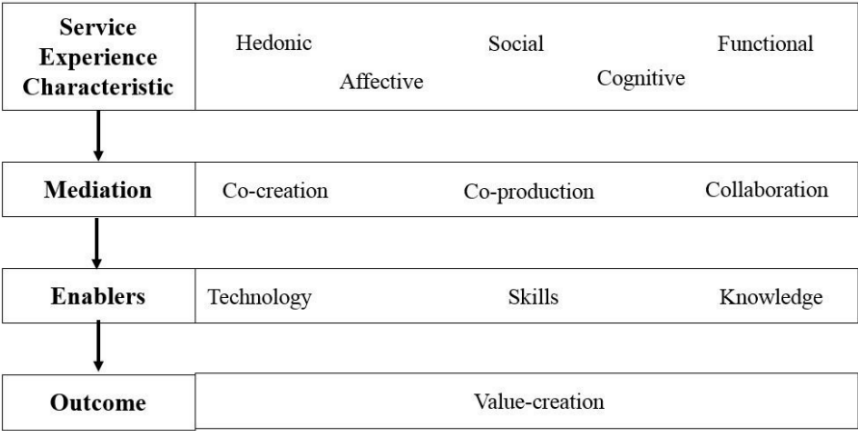
12 Process structure for service experience

Basis the literature review on the contemporary service experience anchored to SDL, a process structure was formed to understand various elements that come together to define service experience construct process (Figure 2). The process comprised of – service experience characteristics, mediators, enablers and outcomes.

Under service experience characteristics, the ‘hedonic’ characteristic includes elements which offer pleasure and interest to the customer, while the ‘cognitive’ characteristic appeals to the more rational customers. The ‘functional’ characteristic consolidates elements related to the functional result experienced by the customer after taking the service. Service experience, in the internet age brings together the network aspect of service. These elements come together to form the ‘social’ characteristic. The ‘affective’ characteristic in a service experience plays an important role, since it appeals to the internal self of the customer, and thus deal with the feelings and emotions of the customers. This experience can be critical especially in case of services which are high on credence (Lovelock, 1983). With all these characteristics of services, it must still be understood that service experience is an individual construct and is unique in its influence on every customer.

In the limited context of this paper, the role of co-creation is studied as an anchor to contemporary service experience. Co-creation or co-production, and collaboration influence the service experience for their ability to shape the service experience which involves more than one entity (service provider, customer and other customers or community members). These elements have been classified as ‘mediators’. Further, the ability to access and traverse through the service journey requires the customers to be technology-aware, and knowledgeable, especially about the service process and the customer’s roles in service co creation. These factors come together to form the ‘enablers’ in this process structure. Finally, a meaningful and effective service experience for a customer adds to the value generated out of the service. Thus, the ability to generate favourable outcome, or perceived value from the experience, is labeled as ‘outcome’ in the process structure.

Figure 2 Elements in a process structure of service experience



13 Convergence between gamification and service experience

Gamification tries to influence the inward experiences and motivations that are integrated throughout the service process (Conaway and Cortés Garay, 2014). Figure 1 presented a thematic distribution of gamification motivation drivers, while Figure 2 earlier summarised the process structure and its elements for service experience. There are several inflection points between the two when we supersede one over the other. In this section, these inflection points are discussed to draw similarities and differences between gamification and service experience.

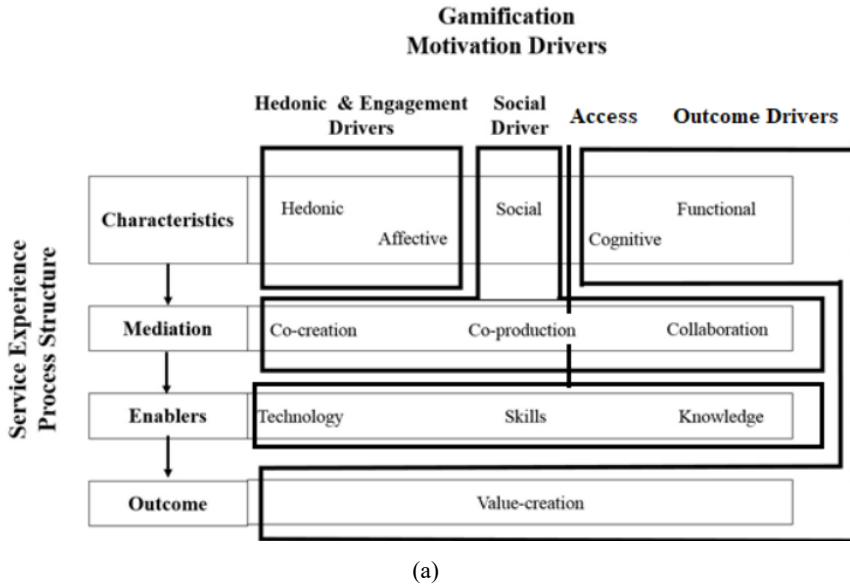
The four motivation driver groups and an enabler in case of gamification were defined as—hedonic motive, social motive, engagement motive and the outcome motive for customers; and easy access to the application. Thus, a gamified system for a service which is embedded in its service design (Huotari and Hamari, 2017), aims at offering a blend of affordances to satisfy the four motivations of a customer as discussed.

While service designers have been making considerate efforts towards designing services in a way which make them more acceptable, use of gamification has been a novel line of application (Klapztein and Cipolla, 2016). Incorporating the means to address the discussed drivers of gamification would be a good starting point for this endeavor. The enablers that help in acceptance and adoption of gamified services must be given due attention too.

However, it must be acknowledged that these enablers for gamified services may very well be out of control for the service provider, like the skill, knowledge and experience that the customers have (Abu-El Samen et al., 2011; Helmefalk and Marcusson, 2019). When the process structure of service experience as summarised earlier is considered, it can be observed that service design or underlying elements of service design influence the customer’s service experience in more than one way. From cognitive to functional, and from hedonic to social, different aspects of customer are influenced due to these elements (Bolton and Saxena-Iyer, 2009; Jaakkola et al., 2015). Further, these experiences are shown to be mediated by co-creation and collaboration process (Prahalad and Ramaswamy, 2004b).

Finally the ultimate aim of providing positive service experience is to lead value enhancement as well new value creation for the customer through co-creation (Hernández-Ortega and Franco, 2019). Ellway and Dean (2016) argued that there exists a strong association between the service experience and the value creation which is moderated by the practice, or length of customer's experience with the service.

Figure 3 Convergence between (a) gamification motivation drivers and (b) service experience process structure (graphical and matrix representation)



Service Experience Structure	Gamification Motivation Drivers			Outcome Driver
	Hedonic & Engagement Drivers	Social Driver	Access	
Characteristics	<i>Hedonic & Affective</i>			
Mediation		<i>Social, Co-creation, Co-production, and Collaboration</i>		
Enablers			<i>Technology Skills and Knowledge</i>	
Outcome				<i>Functional, Cognitive, and Value-creation</i>

(b)

As the literature related to gamification and service experience is systematically researched, there emerges a pattern between the drivers and enablers of gamification, and

that of the elements of service experience process. These patterns can help in mapping the underlying objectives of the two entities – gamification and service experience. The mapping would in turn help extract converging moments of truth between the two concepts. From the service providers' point of view, a convergence would lead to design of 'Gameful Service Experiences', which are truly founded on the principles of gamification and characteristics of service experience. This is depicted in Figure 3 through a graphic as well as a matrix, and discussed in detail subsequently.

Gamification aims at achieving a heightened sense of interest, pleasure and joy of use for the customers. Thus a gamified service would aim to satisfy the hedonic needs of a customer associated with the service concerned. However, while hedonic attributes may offer a sense of happiness, they may fall short of offering the stickiness that is required from the customers. Further, curiosity is a natural trait in human beings, which spikes up the human interest leading to high level of engagement with customers. Further, these attributes tend to affect the customer's overall perception of the gamified service. These findings are in line with the hedonic and affective characteristics of service experience that have been known to be valued by the service customers. These characteristics are considered critical in building a constant positive and favourable opinion about the service. Thus the 'hedonic' and 'engaging' drivers of gamification are strongly associated with the 'hedonic' and 'affective' characteristics observed in service experience.

The gamification driver with a social motive brings in three specific areas of social association – co-creation, network sharing and community integration (Koivisto and Hamaria, 2019). These factors are considered important in the gamified design since the ability of the user to connect, communicate and associate with the service provider, fellow customers, and other individuals outside the gamified service is rated highly by the customers. The ease and ability to begin a conversation with these entities make the customer feel more secure and social. The community aspect is especially critical as more customers are looking at a real-time information sharing and engaging with people outside a limited network. A gamified service with such a feature fits naturally to address this need thus making the customers trust the service better (Bagherzadeh et al., 2020).

'Social' characteristic highlighted as one of the characteristics of the service experience also relates to the ability of the service experience to transcend the boundaries of the set network and entities. The service experience thus built is based upon the desire to share the process, and outcome of the service experience with fellow customers and outside world. For example, the co-creation, collaboration and community aspects of service experiences are considered as strong mediators for overall service experience. Thus, the 'social' driver of gamification motivation completely overlaps the 'social' characteristic of service experience including the mediators as identified.

While hedonic, engagement and social motivation drivers, and relevant service experience characteristics are responsible for the overall feeling and emotion of the customers, the end result, or the outcome achieved through interaction with the gamified service is of the highest importance. This is because it is the primary motivation for the customers to interact with a gamified service in the first place. The gamification in this case defines the end-result of the service experience as an achievement for the customer by generating a meaningful value. This value generation is also coupled with milestone based rewards and benefits, based on the idea of accomplishment.

On the service experience front, these form the overall judgment through rational assessment of the service being offered. As service characteristics, these sit in the cognitive and function domain, due to the cognitive assessment of the service experience.

Finally, this interaction with service is expected to lead to value-generation for the customer, as the ultimate accomplishment. Thus the 'outcome' motivation driver for gamification is in line with the 'cognitive' and 'functional' characteristics of the service experience which along with other characteristics are expected to lead to value – generation for customers.

'Access' as enabler is common between gamification and service experience. Customer's ability to access a gamified service, and the ease with which it can be used is critical. It is so, because the ease of access and joy of using are both dependent upon internal and external factors, and help in forming a positive or negative service experience.

While the internal or controllable factor for the gamified service is the user interface, intuitiveness of the application and other access tools, a large portion of ease of access is still external and not entirely in service provider's control. So prior experience of customers, knowledge about the application and general skills to navigate and executive service in case of co-creation, makes it complex for the service provider, both in case of gamification as well as that of the service experience.

Thus, once we extracted and isolated various motivation drivers in gamification, and elements of service experience in this study, it led to an overlapping pattern between the two entities. This helped us draw similarities between them and uncover a convergence, thus unearthing that the motivation drivers as well as enabler for gamification converge with the characteristics, mediators, enablers and outcome identified for service experience.

14 Discussion and conclusions

Gamification is built on the idea of making services and products more engaging and fun, thus increasing the adoption as well as stickiness. In the most simplistic way, it can be understood as adding game-features to non-game contexts to increase the immersiveness of the customer and adding value to customers (Marcusson, 2020).

This paper looks at the convergence between the concept of gamification and the characteristics of service experience anchored to SD-L (Vargo and Lusch, 2004). With the help of a thorough and systematic literature review, various technical and functional perspectives were recorded and classified under different themes. For gamification, the underlying theme were then translated into drivers that influence various types of consumer motivation. Another set of details for gamification extracted was on the enablers that make gamification possible and prevalent. On the service experience front, the perspectives were translated into a structured process for service experience elements. Further, enablers as well as outcome of a desirable service experience were detailed. Finally, gamification and service experience as a process, were assessed simultaneously to extract a convergence pattern between the two.

The results showed that there is near perfect overlapping among the elements of gamification drivers and enablers, and the process structure of service experience. The 'hedonic' and 'engaging' motivation drivers of gamification converged with the 'hedonic' and 'affective' characteristics of service experience. This means, that the drivers for gamification thus identified are in line with what makes up the experience for customers on these two characteristics.

The same was also found for 'social' motivation driver for gamification, which influenced the elements that were part of the 'social/sociological' characteristic of the service experience. Further, in this case, the mediators that influenced the service experience for customers were also part of the social motivation driver under gamification. Thus, the social motivation driver is well equipped to influence the service experience positively both for social characteristics, and the mediators like co-creation, collaboration and community elements.

Finally, the 'cognitive' and 'functional' characteristics of service experience, were in line with the 'outcome' motivation driver in gamification thematic representation. This driver also aims to influence the reward and benefit aspect of service experience under the cognitive and functional characteristics.

As for the enablers, skills, knowledge and prior experience of customers, and technology intuitiveness were common elements across both the entities. Thus, this paper helped consolidate the existing literature on gamification and service experience anchored to SDL, which in turn led to extraction of drivers and enablers for gamification, and service elements for service experience. Further, the convergence between gamification as a behaviour altering tool, and service experience as the outcome of this tool is discussed based on the extracted elements for each of the two entities. The near perfect overlapping between the objectives and capabilities of gamification, and structure and process of service experience has theoretical and practical implications which are discussed in the next section. It can be concluded from the study that gamification is a potent tool equipped with just the right drivers to influence the customer's service experience by targeting the right form of motivation for them that would lead to effective value-generation.

15 Academic and industrial implications

On the academic front, this study contributes towards consolidating and structuring literature on gamification, and service experiences. SDL-specific concepts like co-creation, collaboration, and value proposition, are key constituents of the literature discussed for service experience. This shall address the gap cited by Becker and Jaakkola (2020) and Jaakkola et al. (2015) who argued that integrative knowledge on the service experience as well as the co creation aspect of service experience are lacking and contemporary research must extend into consolidating this body of research.

This paper has attempted to address these concerns while also paving way for further research on integration of seemingly diverse concepts, as discussed earlier in terms of a framework proposed in the paper. For example adoption of design thinking and agile processes in influencing service experience, or how virtual and augmented reality may influence the the core idea of gamification, which may inturn influence service experience, could be other areas for further studies in this domain. Finally, this paper has also contributed towards an approach of conducting a theme based conceptual review of literature of concerned areas of interest. From the industry point of view, this paper shall help service marketers to understand and appreciate the association between gamification and service experience. This may lead to introduction of elements of gamification into the service design that may influence service experience of customers.

An enhanced service experience has been identified as a key towards satisfied customers which are easier to retain (Becker and Jaakkola, 2020). This paper with the

help of the proposed framework has also been able to demonstrate a mapping between various motivation drivers that gamification targets, and how these drivers are associated with the service experience process. This shall equip service marketers with specific inputs on gamification elements that need to be adopted for targeting a particular consumer motivation or a specific service experience element.

16 Limitations of the study

There are a few limitations in this study which must be highlighted. The study is entirely based on existing literature from gamification and service experience areas with no primary research or empirical analysis conducted. The literature review was restricted to application of gamification in services only, which may have affected the possible scope of the gamification tools. The themes developed under the gamification section were restricted to consumer motivation and elements of gamification which were more relevant to the paper, and technical detail on the gamification elements was skipped as it was not in line with the objectives of the study. Similarly the service experience literature was skewed towards the SDL as it was identified as the theme for defining service experience for the study early on.

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