

The effect of gamification on customer experience in the digital environment

Kirill Vdov

Bachelor's Thesis

April 2020

School of Business

Degree Programme in International Business

Jyväskylän ammattikorkeakoulu

JAMK University of Applied Sciences

Author(s) Vdov, Kirill	Type of publication Bachelor's thesis	Date April 2020 Language of publication: English
	Number of pages 60	Permission for web publication: x
Title of publication The effect of gamification on the customer experience in the digital environment		
Degree programme International Business		
Supervisor(s) Zoccoli, Marcella		
Assigned by JAMK Center for Competitiveness		
<p>Gamification has been a buzz word for a few years. Having its origins in the video game industry, modern gamification is the application of game thinking, game design principles to a non-game context. In the increasingly digital world with ever-evolving digital technologies, it is easier than ever to make use of gamification techniques.</p> <p>In theory, gamification should create additional value for the participants of gamified activities. By aiming at satisfying internal needs for Autonomy, Competence, and Relatedness, gamified activities bring positive emotions, experience to the participants. At the same time, point of view exists where gamification is seen as a manipulative technique luring people into taking actions they would have taken otherwise. This study focuses on identifying what customer experience receive users of gamified digital systems.</p> <p>Qualitative approach and grounded theory research strategy allowed for a detailed data analysis without the pressure of strictly fitting into a pre-defined theoretical framework. Despite certain validation challenges, such approach provides a substantial basis for future research.</p> <p>The results demonstrated that the majority of the users receive positive customer experience when taking part in the digital gamified system. In a minority of cases, a negative experience can derive from misuse of gamification techniques or differential users' perception.</p> <p>Findings regarding gamification effect on customer experience in the digital environment can be utilized in marketing, education, and management fields. Additionally, they provide ground for future research regarding digital customer experience, the effect of gamification on achieving business objectives, customer engagement, and other relevant topics.</p>		
Keywords/tags Gamification, game design, customer experience, octalysis framework		
Miscellaneous (<u>Confidential information</u>)		

Contents

1	Introduction	3
1.1	Background.....	3
1.2	Motivation for the research	5
1.3	Research question	8
1.4	Structure of the thesis.....	8
2	Literature Review	9
2.1	Gamification	9
2.1.1	Defining gamification.....	9
2.1.2	Game design	11
2.1.3	Games and gamification in marketing.....	16
2.2	Customer experience	17
2.2.1	Defining customer experience.....	17
2.2.2	Digital customer experience.....	20
2.3	Octalysis framework.....	21
3	Methodology.....	27
3.1	Research approach	27
3.2	Research context	29
3.3	Data collection.....	29
3.4	Data analysis.....	30
3.5	Verification of the results	32
4	Reserch results	34
4.1	Digital customer experience.....	34
4.2	Positive effect of gamification.....	38
4.3	Negative effect of gamification	44

4.4	Additional findings.....	45
5	Discussion	48
5.1	Answer to the research question	48
5.2	Practical implications.....	50
5.3	Limitations of the research	51
5.4	Recommendations for future research	52
	References	54
	Appendices	58
	Figures	
	Figure 1. Elements of Self-Determination Theory	13
	Figure 2. Flow channel	15
	Figure 3. Octalysis framework	22
	Figure 4. Left Brain & Right Brain Drivers	25
	Figure 5. White Hat & Black Hat Gamification	26
	Tables	
	Table 1. Main themes identified from the analyzed data.....	34
	Table 2. Digital customer experience subtopics	35
	Table 3. Positive effect of gamification subtopics	39
	Table 4. Negative effect of gamification subtopics.....	44
	Table 5. Additional findings subtopics	46

1 Introduction

The Introduction chapter will provide a brief overview to the gamification origins, the modern state of gamification, its application in the business as well as personal and academical motivation for the study. As there is some distinct terminology present in the paper, a small glossary is provided below for the convenience of the reader:

Game design – is a process of creating content, environment, rules for a game or educational, experimental, or exercise purposes.

Game thinking – using game design tools and techniques to create an engaging experience that motivates desired behaviors in a non-game context. (Werbach & Hunter 2012, 41)

Gamified system – a system or process created with the application of game thinking.

PBL – points, badgers, and leaderboards, most commonly used gamification tools in modern gamified systems.

Avatar – is a graphical representation of a particular person in the digital environment (videogames, internet forums, etc.).

1.1 Background

Video games have been a significant part of our culture for a while now (Anderton 2018). Stable annual growth between 9% and 15% over the past 25 years allowed the video game industry to settle down firmly among global entertainment industries (Marchand & Henning-Thurau 2013). There are research groups such as Qutee, which are researching for positive impact video games have. At the same time, with the growing popularity of video games, the media blamed them for causing addiction, raising violence levels among youth, and other negative influences. (Anderton 2018) Additionally, studies like “Priming Effects of Computer Game Violence on Children’s Aggression Levels” (Zheng & Zhang 2016) demonstrate an academic interest in what kind of social influence video games have. Regardless of what influence they have

over society, with an estimated 2.5 billion gamers worldwide and growing (Wijman 2019), this influence seems to be getting more significant.

By nature, games are made to be enjoyable and enthralling, even when playing the game is difficult. Rules of a game might be complex and intricate, but it doesn't stop players from taking part in an exciting gameplay process and genuinely enjoying it. For some reason, people voluntarily take on overcoming "unnecessary" obstacles for rewards, which often don't have any real-life value, even though the process of overcoming can be, without exaggeration, very challenging. (McGonigal J. 2010, 22)

Experts have been trying to figure out what elements make games such a fun and engaging activity, despite lack of obvious profit from it, and whether it is possible and beneficial to implement video game principles in a non-game context. Due to advancements in communication technologies (e.g. global spread of Internet or general improvement of digital technology), new opportunities had arisen for applying these principles to resolve various real-life problems, and this process became widely known as *gamification*. (Growth Engineering 2019) Even though gamification and games are two different concepts, they also have a lot in common. Thus, understanding of games' mechanics, principles as well as reasons behind their popularity will provide a more holistic insight into ideas behind gamification.

Gamification, as a holistic approach to resolving organizations' business challenges, is a relatively new concept, and there is no single, unified definition of the term yet. Experts argue whether gamification should alter the core of the activity, should it enhance the value of the activity without directly affecting it, or it is just "the high-fructose corn syrup of motivation" for more traditional marketing/educational techniques (Werbach & Hunter 2012, 60).

Regardless of how gamification should be exactly defined, there is at least one universally agreed aspect of gamification. The main purpose of gamified systems is to increase engagement and motivation among its users as well as to give additional stimulus to reach their goals. For example, such systems can be used for personal growth efforts, educational processes, marketing engagement, or encouraging teamwork among employees within an organization. (Zichermann 2011)

There are three general ways organizations can approach gamification to solve their business problems: internal gamification (e.g to improve organization's productivity), external gamification (e.g to increase customers engagement, loyalty subsequently increasing revenue), and behavior-change gamification (e.g to create new, beneficial habits, such as healthier eating or reduced electricity consumption, among system's users). (Werbach & Hunter 2012, 20-23) This study will largely focus on external gamification, which involves interaction with current or prospective customers.

1.2 Motivation for the research

According to Werbach & Hunter (2012, 8), "organizations whose employees, communities, and customers are deeply engaged will outperform those that cannot engender authentic motivation. It is especially true in a world where competition is global and technology has radically lowered barriers to entry". Engaged and motivated people would do anything in a more passionate manner, which is a significant competitive advantage in the business world. Additionally, even though this statement was given back in 2012, the relevance of the message only grows. The advent of social media created an enormous flow of information so competing for the attention of prospective and current customers is getting even more challenging for companies. On top of that, the evolving culture of remote working and wider awareness of career possibilities create staff flow more dynamic than ever before. In a world, where competition is global, external motivators, be it high salary or low prices, aren't reliable enough since those can be outbid eventually. Many organizations acknowledge this tendency and started readjusting their strategies to create and sustain internal motivators for both customers and employees.

Gamification is just one approach to develop such a strong but complex and delicate motivators. However, gamification, in one form or another, has been around for a long time and proved its effectiveness a long time ago. However, it is only now when digitalization of the world allowed organizations to deliver gamified solutions in a convenient form at a lower cost. (Gartner, 2014) Even though this approach is no

panacea, it can be systemized and applied in many very diverse scenarios, making it a very applicable tool (Werbach & Hunter 2012, 43).

From a business standpoint, gamification is a powerful tool to solve various business challenges. One such challenge is customer engagement, which became a high priority topic in strategic marketing and branding several years ago. Marketers have been trying to cope with the constantly evolving social dynamics of postmodern consumer behavior. These efforts are aimed at establishing a bond between brands and consumers and gamification can be an effective solution for reaching this objective. Increasingly, gamification is becoming an essential part of any good, versatile marketing strategy. Good marketing relies less and less on giving away free and focuses more on engaging customers in meaningful ways. (Cramer 2014, 9) Even though gamification is still in its early stages of development in the business world, there are already multiple successful cases of its application, as well as startups that focus on developing and implementing gamified solutions.

From an academic perspective, the number of articles and researches on the gamification topic has been increasing rather rapidly since 2011 (Hamari, Koivisto & Sarsa 2014, 1). There are plenty of studies from a psychological and sociological perspective like “The Proteus Paradox: How Online Games and Virtual Worlds Change Us—And How They Don't” (Yee 2014) as well as studies dedicated to the utilization of gamification in training, learning, and management process (e.g “The Gamification of Work: The Use of Games in the Workplace” (Savignac 2016) or “Visualisation and Gamification of e-Learning and Programming Education” (Olsson, Mozelius & Collin 2015)). However, in comparison with these topics, the number of articles and studies regarding the utilization of gamification in marketing is in a minority. There are, of course, works on this subject as well, for example, “Games and Gamification in Market Research: Increasing Consumer Engagement in Research for Business Success” (Adamou 2018), but the research niche is still lacking and there are plenty of blank spots to fill.

As for the personal motivation for the study subject, it is closely tight with my three fields of great interest: gaming, marketing, and applied psychology. Both board and video games hold my interest. However, I see board game gatherings as more of a social event where the game itself might be a secondary thing for the experience

quality. At the same time, playing video games is, more often than not, pure interaction with the game itself, where the social aspect also can be important, but the focus remains on the gameplay and game design with its nuances. Myself, I started playing video games as a hobby many years ago at a very young age, and they have been a big part of my life ever since. However, I had never tried to understand the essence of games and mechanisms behind them until a couple of years ago.

One day, I stumbled upon an applied psychology book, written by Mihaly Csikszentmihalyi, "Flow: The Psychology of Optimal Experience" (1990). In his book, Mihaly Csikszentmihalyi introduces and breaks down the concept of the *flow* which is defined as "a state in which people are so involved in an activity that nothing else seems to matter; the experience is so enjoyable that people will continue to do it even at great cost, for the sheer sake of doing it" (Csikszentmihalyi 1990, 4). This state is familiar to most people, a state where the sense of time duration and concern of self is lost. People may reach this state doing highly enjoyable and engaging activities, be it a creative process, playing a game or, in the best case, some are capable of reaching it by doing mundane and routine tasks. Mihaly Csikszentmihalyi breaks down this state and identifies its necessary elements as well as possible ways of achieving it. The work of Mihaly Csikszentmihalyi is quite controversial, it is often claimed to be lacking scientific evidence. However, I enjoyed this book and often notice the accuracy of the author's ideas in my everyday life.

Sometime after I got myself familiar with the flow concept, I took an introductory course on game design. While I found the course very informative, I have also noticed plenty of similarities between game design principles and the flow concept. Later on, when I decided to learn more about subjects of game design and gamification, I found out some works also refer to Mr. Csikszentmihalyi's framework in their researches (McGonigal J. 2010; Werbach & Hunter 2012). On top of that, the author himself refers to games as an activity which predispose to the state of flow. Subsequently, I've decided to explore the same ideas and concepts but in the context of marketing.

1.3 Research question

This study will focus on gathering primary data via interviews with relevant marketing experts. Gathered data will be broken down through the lenses of the gamification framework in the context of marketing. To narrow down the scope of the paper, the following question was formulized:

How gamification affects customer experience in the digital environment?

1.4 Structure of the thesis

The Introduction chapter provides background and introduction to the study. The Literature Review chapter introduces relevant concepts, terminology, and the theoretical framework. The Methodology chapter explains the research methods and approaches. The Results chapter covers the data from primary and secondary sources. In the Discussion chapter, gathered data is analyzed through the theoretical framework, and results are summarized. References and other appendixes will be presented after the Discussion chapter.

2 Literature Review

The Literature Review chapter introduces the concepts of gamification and game design. Self-Determination Theory and the Csikszentmihalyi's "flow" theory are introduced as psychological concepts behind game design principles.

Additionally, the chapter explains the concept of customer experience and its nuances in the digital environment as well as points out the importance of the customer experience for modern business. The Octalysis Framework is introduced as a practical tool for analyzing collected data.

2.1 Gamification

2.1.1 Defining gamification

Ideas behind gamification aren't new. Companies have been applying game thinking to resolve business challenges for quite some time. There are references to "gamifying" online systems that go way back to the 1980s. First to use term "gamification" was Nick Pelling, a British game developer who founded a short-lived agency in an attempt to provide service of creating game-like interfaces. At first, the term didn't meet a lot of popularity, although during following years, game designers like Amy Jo Kim, Nicole Lazzaro, Jane McGonigal, and Ben Sawyer, as well as researchers such as Ian Bogost, James Paul Gee, and Byron Reeves, began to talk about the serious potential of video games. Only in 2010, term gamification became adopted in a sense it is used now. (Werbach & Hunter 2012, 25)

There is no unified of the term and many experts try to give their definitions or redefine existing ones. Werbach and Hunter (2012, 26) explained gamification as "use of game elements game-design techniques in non-game context". Nick DiMoror gave a more specific definition: "a process of game mechanics and psychology to drive a set of specific desired behaviors by the user" (Cramer 2014, 8). Moreover, Hamari, Koivisto, and Harri (2014, 2) described gamification as the following: "A process of enhancing services with (motivational) affordances in order to invoke

gameful experiences and further behavioral outcomes”. In this definition, gamification is separated into three main parts:

- 1) **Motivational affordances:** these are elements, similar to ones used in games, to invoke game-like experiences for players. Such elements could be points, badges, leaderboards, progression systems, etc.
- 2) **Psychological outcomes:** which are a result of the player reacting to the motivational affordances. Since it is psychological outcomes, they typically affect the inner feelings and emotions of the players towards affordances.
- 3) **Behavioral outcomes:** which are outcomes of gamification that appears in the player’s behavior. Comes after reacting to psychological outcomes.

Moreover, another definition was given by Gartner (2014), where (gamification is) “the use of game mechanics and experience design to digitally engage and motivate people to achieve their goals”. This definition was criticized a lot for being rather narrow and not grasping the full scope of gamification. However, it also underlines an important aspect of using modern gamified systems – utilization of digital space. One of the most important reasons for gamification to gain attraction is the development of digital and communicational technologies. These advances allowed gamified solutions to be conveniently delivered to the end-users at lower costs. (Gartner 2014) Accordingly, gamification often implies the utilization of digital technologies, even though, gamified systems aren’t restricted to them by nature.

From a service marketing perspective, Huotari & Hamari (2012, 19) explain gamification as “a process of enhancing a service with affordances for gameful experiences in order to support user’s overall value creation”. In this definition, experts argue that gamification should come in form “service packaging” which enhances a core service by providing service system endowed with feedback and interaction mechanism to support the user’s overall value creation. In other words, gamification should come as a supporting mechanism instead of being part of the core service.

Hence, the definition of gamification in a business context can be summarized as, the use of game mechanics and psychological techniques in a non-game context to

achieve specific business objectives, be it external customer-facing activities or internal organizational efforts, often with the utilization of digital technologies.

2.1.2 Game design

From the perspective of Burke (2014, 6), the goal of gamification is to enable motivation. Even though games and gamification use the same game design tools, the final objective of both is sundry. While games are about providing entertainment to their users, unleashing “ineffable quality of fun” (Werbach & Hunter 2012, 47), gamified systems are about motivating changes in behavior and engaging in an activity (Alsawaier 2017, 5). Incentive programs, such as loyalty programs, are a basic example of a gamified system used to reach a certain business objective. Such programs heavily utilize “points” element to encourage their users to make more purchases from the program owner business, rather than from competitors’, thus, influencing change in behavior.

In order to understand how to motivate behavioral changes, it is important to understand the types and nuances of motivation. Psychologists identify two general types of motivation:

- **Intrinsic.** Intrinsic motivation occurs when a person acts guided by his internal desire to do so, with no obvious external reward (Ackerman 2019). Such internal desire may come from enjoying the activity itself, desire to self-develop; from a person’s core life values, interests, or sense of morality.
- **Extrinsic.** Extrinsic motivation is a drive to behave in certain ways which are based on external sources or external rewards (Koestner & Hope 2014). Such sources include awards, grading systems, performance reviews, and the respect/admiration of others.

In essence, intrinsic motivation is about enjoying the process or activity itself, regardless of the outcome, while extrinsic motivation focuses solely on the reward from the activity. At first glance, it may seem that those two types of motivation are opposite, however, both of them are necessary for efficient goal striving.

Activities people perform do not strictly fall in these categories, motivation builds on how particular people relate to particular tasks. However, if the extrinsic motivation is often obvious, such work to get paid or studying to get a degree, intrinsic motivation can be harder to grasp. (Werbach & Hunter 2012, 55) At the same time, intrinsic motivation is as important for needs of satisfaction and well-being, as extrinsic (Ackerman 2019), if not more. According to Koestner & Hope (2014), research on goals confirmed that success in goal striving is more likely to occur if goals are intrinsic and intended to satisfy intrinsic needs. Success in goal achieving is also more likely if a person's intrinsic motivation is support by empathetic and supportive people, instead of by controlling and directive people (i.g. people who would support the fear of punishment as a motivator) (Koestner & Hope 2014).

Both, intrinsic and extrinsic motivations, are powerful forces in shaping human behavior and decision making (Ryan & Deci 2000, 76). However, while benefits or external rewards are obvious, the benefits of satisfying intrinsic needs are not so much. According to Deci & Ryan (2000, 76), people experience greater levels of satisfaction and success in goal striving when they pursue goals in their own, autonomous way. Even when pursuing extrinsic rewards such as wealth or fame, people are more satisfied and self-actualized when pursuing them for their own reasons, with their own methods. Compensating lack of intrinsic motivation with external motivation wouldn't help since a study showed that when people are receiving external rewards for doing something, they eventually become less and less interested in doing it, compared to people who didn't receive anything for the same activity. (Ackerman 2019).

Both types of motivation are important for harmonious, enjoyable and successful goal striving. Cutting away extrinsic motivation might neglect the initial push, most obvious motivation for something to be done while cutting away intrinsic motivation will make the process dull and unenjoyable. Thus, it is important to satisfy both, extrinsic and intrinsic desires and needs. In other words, it is objectively better to enjoy the process and the outcome than just the outcome. (Ackerman, 2019)

Deci and Ryan (2000) formulated a Self-Determination Theory (SDT) to identify and explain those intrinsic needs. This theory suggests that intrinsic motivation is driven by three congenital and universal psychological needs:

- **Autonomy:** need to feel in control of own decisions and goals, to take actions which seem meaningful and do not contradict with one's values
- **Competence:** or mastery, means effectively dealing and overcoming external challenges. People would more willingly take actions necessary for achieving their goals if they believe that they have the skills and competence required to act.
- **Relatedness:** or connection, universal desire to socially connect, interact and be involved with friends, family, and other people around. It can also emerge as a desire for a higher purpose, greater meaning. For example, to be part of something which makes a difference, makes the world a better place.

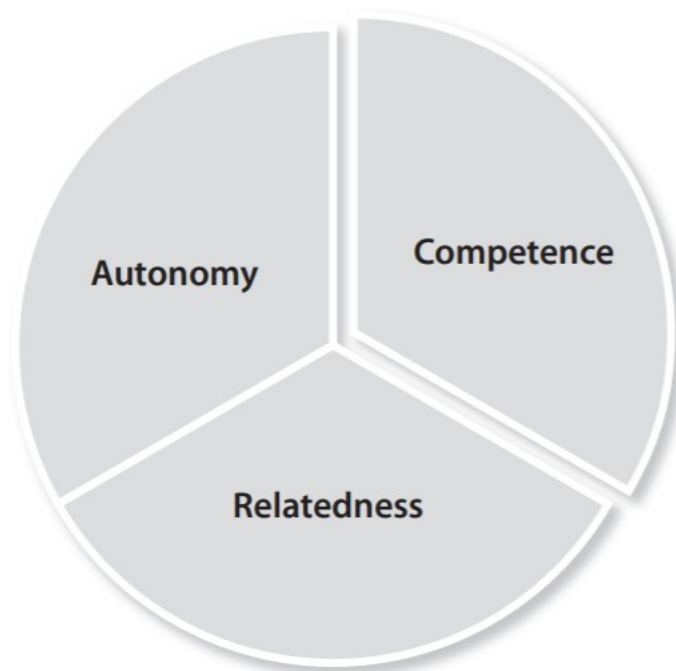


Figure 1. Elements of Self-Determination Theory (Werbach & Hunter 2012, 57)

It is not required for the activity to satisfy all three needs simultaneously to motivate internally. Tasks implicating one or more of these elements will tend to be intrinsically motivated. Furthermore, according to SDT people are inherently proactive, with a strong intrinsic motivation for growth, accomplishment, and development, but the external environment has to support that, otherwise, these internal motivators will be suppressed.

Werbach and Hunter (2012, 59) state that well-designed games are perfect examples of SDT put in practice. First, playing games is voluntary and, once played, the game allows the player to make decisions and to choose between different experiences (**Autonomy**), for example, the game provides multiple options of solving a puzzle and lets the player choose his own way. Second, a well-designed game adapts to the player's skill by offering different levels of challenge (**Competence**). Finally, it allows the player to experience social bonding by interacting with other players (**Relatedness**). Gamified systems use similar game design tools to satisfy these three intrinsic needs. Giving players choices and offering a range of experience responds to the desire for autonomy. Accumulation of points can be a marker of competence and mastery. Leaderboards and badgers can facilitate social interactions, such as sharing your advancements on social media platforms, thus, responding to the need for relatedness. Alternatively, the desire for relatedness might be satisfied by "higher purpose" goals, such as reducing waste or conserving energy consumption.

Although gamified systems can be fun in themselves, they are not just about intrinsic motivation. Gamified systems often offer some kind of extrinsically motivated benefits, such as discounts, to attract new users. From a broader point of view, extrinsic motivation for joining a gamified fitness app can be to get in better shape and to be more attractive. Most of the activities people do are easily extrinsically motivated but often lack clear elements necessary for intrinsic motivation, putting these activities into suboptimal conditions for performing. Gamification solutions help to resolve this problem by building systems for harmonious and engaging activities which motivate on both levels. (Werbach & Hunter 2012)

Another perspective on activity engagement is given by Mihaly Csikszentmihalyi in his flow theory (1990) which concludes that for the activity to be immersive and enjoyable several factors have to be present, among which are a sense of control, clear goals, unambiguous feedback, and challenge-skill balance. These factors are particularly interesting as they intersect with elements of SDT, underlining the importance of intrinsic motivation to feel happy doing something. Other factors include action-awareness merging, concentration on the task at hand, loss of self-consciousness, and altered perception of time (Nakamura & Csikszentmihalyi 2002, 7), however, all these factors do not need to be present in order for the activity to be

immersive and enjoyable. The presence of several of aforementioned factors can also trigger the “flow” state. Mihaly Csikszentmihalyi emphasizes the importance of proper challenge-skill balance as it is not only important for the challenge to be in the competence of one’s abilities but also not to be too easy to overcome. Otherwise, it will cause boredom, thwarting potential engagement. Figure 2 demonstrates this balance between challenge and skill.

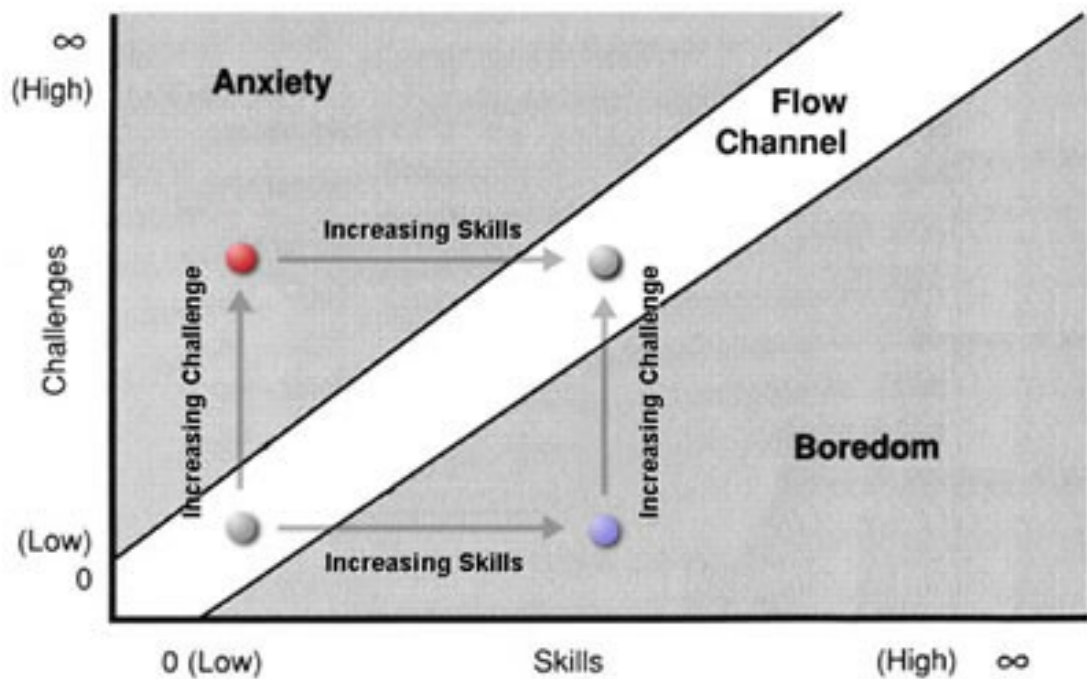


Figure 2. Flow channel (Csikszentmihalyi 1990, 74)

On top of that, Schell (2008, 154) states that game design by the light of nature follows the framework of the flow theory since a well-designed game challenges the player based on his skills and abilities facing him with suitable tasks, not too easy but not impossible to do. Mihaly Csikszentmihalyi also pinpoints games, such as tennis or chess, as a perfect example of activity structured to experience the state of “flow” (1990, 50).

Therefore, in light of the SDT and the flow theory, it can be stated that games and gamified solutions are designed as internally motivated, immersive, engaging, and highly enjoyable activities, that are performed for the sake of performing them, rather than for achieving external materialistic and non-materialistic rewards. This is done by providing players autonomy to make decisions, challenging them by skill-matching tasks, giving unambiguous feedback, and introducing elements of relatedness.

2.1.3 Games and gamification in marketing

Games and gamification have a lot of common traits. For example, in both participation have to be voluntary, the player must have a certain degree of autonomy, and some sort of feedback system should be implemented so the player can feel a sense of progression and accomplishment. However, there is one important element that separates games from gamification – the final objective. While the final objective of games is to deliver an ineffable quality of fun to the players, the final objective of gamification is to achieve a certain business objective, apart from delivering a fun and engaging experience. Accordingly, gamification requires algorithms to measure and respond to actions in a very precise manner. On top of that, it should be easy to track and record players' activity, so the relevant data can proceed through online systems to retrieve valuable insights and to adjust gamified systems to deliver the best possible experience and, ultimately, reach the business objective. (Werbach & Hunter 2012, 47)

In other words, designing gamified systems requires an approach different from designing games. While some game design principles are applicable to both, gamified systems require additional means and tools to reach goals set by the system's creator.

Game design is built around various cognitive and psychological biases, and marketing often studies and exploit these same biases. Thus, it led to the utilization of separate game elements in marketing efforts. (Hamari & Lehdonvirta 2010, 26) One such example is points, part of numerous incentive programs. Hsee, Yu, Zhang, and Zhang (2013, 11) concluded that points as a medium of exchange (i.e when goods are purchased with points, instead of directly with money) have a noticeable effect on people's purchasing behavior. According to the study, the medium created an illusion of advantage, linearity, and certainty and caused test subjects to alternate their preferences and choose the options that were less desirable without the medium.

Hamari & Lehdonvirta (2010, 26) suggest that many traditional marketing techniques can be seen as game design patterns. Accordingly, the task of planning a marketing strategy can be approached as creating a game design: a structure of choices, limitations, and stimulus that engages the player/consumer into an interactive relationship with a brand and its products or services. The aforementioned example is an instance of utilizing game design patterns as marketing tools and multiple other instances can be found across various marketing strategies; however, those hardly can be called well-designed gamified solutions. According to Hamari & Lehdonvirta (ibid.), such “marketing games” have a number of issues. These games are often too simplistic, fail to engage for a long period of time, they are too easy to be exciting or too difficult to be rewarding. On top of that, marketers’ commercial motives are rather obvious, preventing immersion.

Hamari & Lehdonvirta (ibid., 26) suggest marketing managers to approach marketing tasks as a game design challenge: to hire game design professionals and study relevant literature on gamification topic. This approach will allow creating engaging and immersive gamified solutions around one’s products or services. Attempting to implement gamification without sufficient expertise in game design would likely lead to the creation of obscure “marketing games”, while depreciating the marketing aspect may cause missing out on means necessary to reach the business objective. This implies that designing games and gamified systems should be approached differently and collaboration of experts from both fields, marketing and game design, is necessary to build an effective gamified system that would actively contribute to business objectives.

2.2 Customer experience

2.2.1 Defining customer experience

According to Lemon & Verhoef (2016, 70), customer experience is defined as a multidimensional concept focusing on customer’s cognitive, emotional, sensorial, social, and behavioral reactions to interaction with the brand during the customer’s entire purchase journey. In other words, customer experience is the customer’s

perception and feelings caused by interactions with the brand throughout the customer's life cycle (Ameyo 2019, Gartner 2019). Experiences caused by interactions may relate to various aspects of the company's offering such as the technology used, the brand itself or direct contacts between the firm and the customer (Lemon & Verhoef 2016, 70). Even the smallest aspects, for example, packaging or a notification e-mail, ultimately affect customer experience (Powton 2017).

According to Kriss (2014), investing in creating positive and satisfying customer experience leads to an increase in revenue. In his research, Kriss found out that customers who had the best experience spend 140% more in comparison with those who had the poorest experience (Kriss 2014). Additionally, positive customer experience contributes towards reduced customer retention costs, positive brand image, customer advocacy, and customer loyalty (Ameyo 2019, Kriss 2014).

Nowadays, customers have significant influence over a range of marketing functions (e.g. marketing communication, product innovation, customer acquisition, and retention). This transfer of control over marketing activities can pose a significant threat as well as potential opportunities for a firm. (Harmeling et al. 2016, 312) In the last decade, the popularization of social media and digital technology development led marketers to the conclusion that there are other ways a customer can contribute to a firm or influence its processes, besides direct interactions. These ways include discussing the brand on social media, leaving feedback on the company's website or referencing the company to a wider range of acquaintances online. (Gupta et al. 2018) This led to the development of the customer engagement concept.

Customer engagement is an important element of customer experience (Suthar 2019). Bowden et al. (2009) and Zhang et al. (2017) explain customer engagement as the psychological process of constructing relationships between brands and external stakeholders (e.g. customers) based on emotion and rational cognition. Additionally, Brodie et al. (2011) define customer engagement as a repetitive, interactive process where customer and organization co-create experiences in specific situations.

Pansari and Kumar (2018) defined customer engagement as "the mechanics of a customer's value addition to the firm, either through direct or/and indirect

contribution". A direct contribution can take the form of purchase from the firm, while an indirect component of CE includes customer referral value, customer influence value, and customer knowledge value. Customer referral value is the customer referring others to make a purchase; customer influence value is the customer discussing the brand on social media and influencing his social contacts regarding interaction with the brand; customer knowledge value is the customer providing feedback/suggestions on the firm's products, services, processes. (Pansari & Kumar 2018)

Additionally, successful engagement is times more effective than the efforts of more traditional marketing means (Katz & Lazarsfeld 1995). Other potential benefits include reduced acquisition costs, promoting customer-centric product innovation, providing means to monitor behaviors outside of the core transaction, and enhancing customer satisfaction and loyalty (Kumar 2013). Overall, research shows that engaged customers provide 23% more revenue than average (Clarabridge 2019).

Harmelling, Moffett, Arnold & Carlson (2016) explain customer engagement as "customer's voluntary resource contribution to a firm's marketing function, going beyond financial patronage". Additionally, (Noort et al. 2012) also state that customer engagement is driven by motivation, outside of purchase behavior. Harmeling et al. (2016, 316) emphasize that customer engagement should occur organically as a response to marketing communications and product/services experience without dedicated actions from the firm to motivate the customer.

To summarize, customer engagement can be defined as an interactive process of building relationships between brands and customers based on emotion and cognition, which organically motivates customers to bring additional value to the brands, going beyond direct financial patronage.

According to de Mantos & Rossi (2008), organically occurred customer engagement is more memorable and engenders more trust. Engagements initiatives largely motivated with economic incentives tend to be unreliable, short-lived, not cost-effective and may make the firm vulnerable to customer abuse (Verlegh et al. 2013). Additionally, extrinsic rewards tend to corrupt relationships (Liu et al. 2015) and negatively affect intrinsic motivators (Harmeling 2016, 322).

On the other hand, customer engagement marketing focusing on intrinsic motivation tends to strengthen the psychological and emotional connection to the firm, to its products and services, as well as to other customers (Harmeling 2016). Such internally motivated initiatives often generate lasting memories, shifts in behaviors and support longer-lasting customer engagement (Schouten et al. 2007). Additionally, internally motivated initiatives stimulate the aforementioned value contribution to the brand (Harmeling 2016, 322).

Thus, it can be concluded that effective customer engagement marketing should focus on intrinsically motivating customers to form healthy, long-lasting relationships and to deliver the best possible customer experience.

2.2.2 Digital customer experience

Digital customer experience accounts for experiences perceived through a digital interface, for example, via a smartphone, tablet, or computer (Borowski 2015).

According to Accenture (2013), 49% of consumers believe that the best way to improve the purchasing experience is to integrate online and mobile shopping channels. Moreover, 89% of consumers conduct online research before making a purchasing decision (Accenture 2013), and 82% of smartphone users would turn to their devices to make this decision (Mooney & Johnsmeyer 2015). These findings evidence that digital solutions are shaping essential marketing KPIs and becoming an essential part of customer experience design (Qualtrics 2019).

Borowski (2015) points out that it is important to distinguish offline and online customer experience. Offline customer experience consists of a great number of factors, including the behavior of other customers, temperature, lighting, music, ambient noise, and physical location. Customers realize that some of those factors are outside of business control, so they naturally set a lower expectation bar for what accounts as satisfactory experience.

On the other hand, online customers are much more demanding. A study found out that if a website page takes 10 seconds or longer to load up to 50% of consumers would leave (Muther 2016). Microsoft researches found out that a website starts

losing traffic to competitors if it takes 250 milliseconds longer to load. Borowski (2015) concludes that when customers have less favorable digital experience, they immediately fault the company. Additionally, once the customer invests effort involved in physically visiting the store, it increases his chance of making a purchase. At the same time, it requires much less effort to visit a website or to open up an app making the customer more likely to leave immediately if dissatisfying digital experience occurs. (Loyalty Lion 2019)

To summarize, it can be concluded that digital customer experience is an essential element of overall customer experience. With a higher risk of losing the customer within a short time after first encountering the company's offering comparing to the physical environment, designing digital customer experience should be approached with greater care, aiming for as polished experience as possible.

2.3 Octalysis framework

As a practical tool for analyzing data collected for this study, the Octalysis framework will be utilized.

This framework was chosen as it demonstrates which gamification elements associated with a negative experience (Black Hat) and which are with a positive experience (White Hat). Additionally, it shows which elements act as intrinsically oriented motivators (Right Brain) and which as extrinsically orientated. Thus, putting gamification elements through the Octalysis framework would allow identifying how exactly do they affect overall customer experience.

The Octalysis framework is the most famous gamification framework created by Yu-Kai Chou (2020). The framework is based on prioritizing "human-focused design" that optimizes humans' motivation and respond to their emotional needs, instead of "function-focused design" which focuses on pure efficiency and assumes that workers will perform tasks because they are required to do so.

This framework identifies 8 core motivation drivers: Meaning, Empowerment, Social Influence, Unpredictability, Avoidance, Scarcity, Ownership, and Accomplishment.

Under each core, there is a summary of the most common game design techniques to induce that motivational driver. Yu-Kai Chou states that everything a person does is based on one or more of these motivational cores.

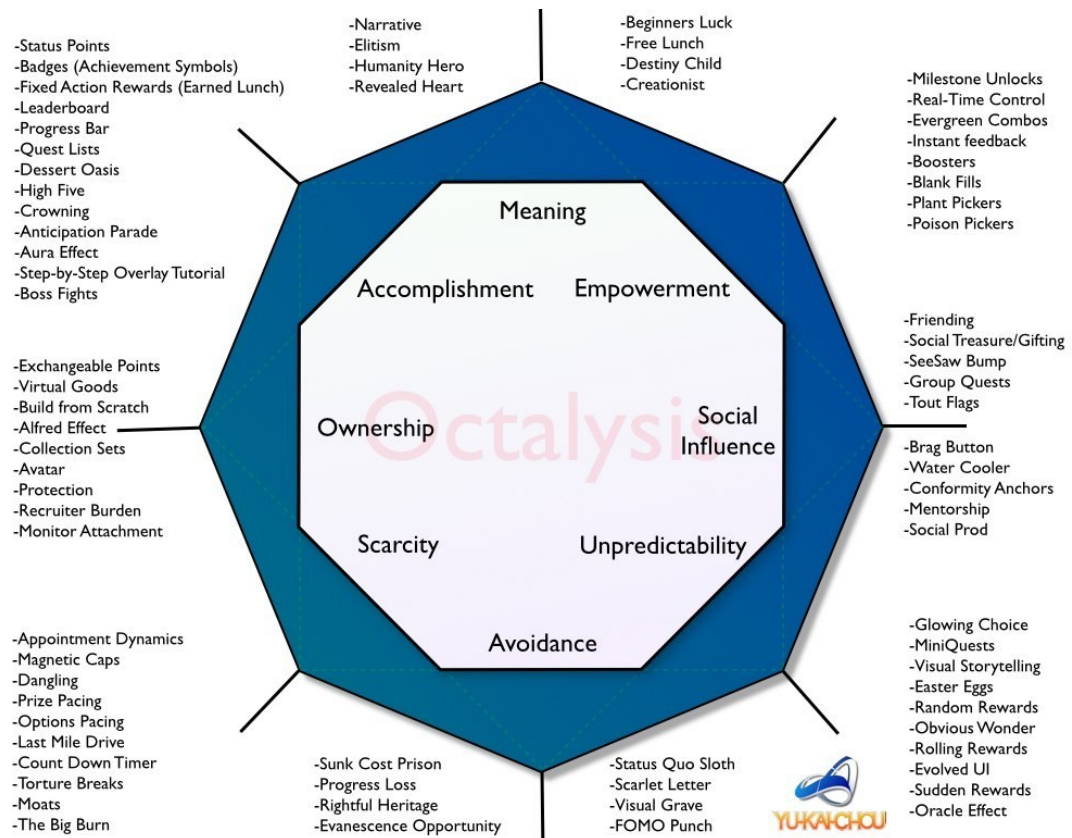


Figure 3. Octalysis framework (Yu-Kai Chou 2020)

1) Meaning (Epic meaning & calling)

According to Yu-Kai Chou, people feel motivated if they believe they are part of something meaningful, something bigger than themselves. This core correlates with the Relatedness element of the SDT, where the need for Relatedness can be satisfied with social interactions or being part of something with a “higher purpose”.

An implementation example of this core is Wikipedia. Numerous people spend their time editing informational materials for no pay but for a higher purpose of providing a neutrally written summary of mainstream knowledge on various topics (Wikipedia 2019).

2) Accomplishment (Development & Accomplishment)

This core driver relies on the inherent human desire for growth and development. This desire was identified by Deci & Ryan (2000, 76) in the SDT.

In the practice of gamification, this usually means unambiguously marking the player's progression. Furthermore, it is the most spread implementation of gamification since PBL, most commonly used gamification tools, heavily emphasize progression, thus, answering the accomplishment need.

3) Empowerment (Empowerment of Creativity & Feedback)

Yu-Kai Chou discusses that people are by nature creative, and taking part in a creative process is enjoyable in itself. In gamification, Yu-Kai Chou identifies game design techniques such as milestone unlocks, choices, and instant feedback to cultivate this core driver.

In order for the player to creatively express himself, certain tools and frameworks have to be provided. The game may start relatively simple, with limited functionality, but as the player progresses, new tools are unlocked to handle the game's challenges. Instant feedback is utilized here not to reinforce the progression, but rather to show whether the approach taken by player works, encouraging him to keep brainstorming if the picked tactic was unsuccessful.

Yu-Kai Chou also points the importance of allowing to make choices. Not only freedom of choice is an essential part of any creative process, but making autonomous decisions also carries in additional meaning and motivation into activity. This point correlates with autonomy and a sense of control mentioned in the SDT and the flow theory.

4) Ownership (Ownership & Possession)

According to Yu-Kai Chou, ownership of something changes people's behavior and attitude with respect towards the subject of ownership. The fact of the possession incites a desire to protect, improve, and accumulate the subject. This principle is applied to virtual goods and commodities introduced across gamified systems. On a more general spectrum, if a person invests time into customizing something (e.g customizing avatar or customizing preference for a music streaming service), he would also feel more ownership towards it.

5) Social Influence (Social Influence & Relatedness)

The core driver well covered as part of the SDT.

Driving social elements include companionship, mentorship, acceptance, social responses as well as competition.

6) Scarcity (Scarcity & Impatience)

This core driver relies on the principle of recourse scarcity, cultivating a desire to obtain these resources. This is a well-known principle in psychology and reinforced by experts such as Robert Cialdini (Cialdini 2006). Some traditional marketing techniques have been relying on this principle (e.g. limited offers) long before the gamification emerged. In games, scarcity-based technique Appointment Dynamics (come back in x time to get a reward) is often implemented. Such techniques incite the desire to obtain limited goods, which would be less desirable in different circumstances.

7) Unpredictability (Unpredictability & Curiosity)

According to Yu-Kai Chou, people's intellectual conciseness is inherently lazy and only wants to be disturbed when it is absolutely necessary, for example when the brain encounters new information or when a threat is present. Once it falls into familiar patterns, attention wanes. Thus, it is important to face a person with a reasonable amount of new, unexpected information to maintain one's interest and engagement. In gamification, random rewards and events are often utilized for this.

8) Avoidance (Loss & Avoidance)

This core principle relies on the fear of losing something, representing our time and resources investment, or having undesirable consequences, such as punishment. This principle also spreads to fear of losing an opportunity, not acting on time. In games, fear of loss can be represented in punishment for your character death (e.g. losing in-game currency or points) or losing daily rewards by not logging in time.

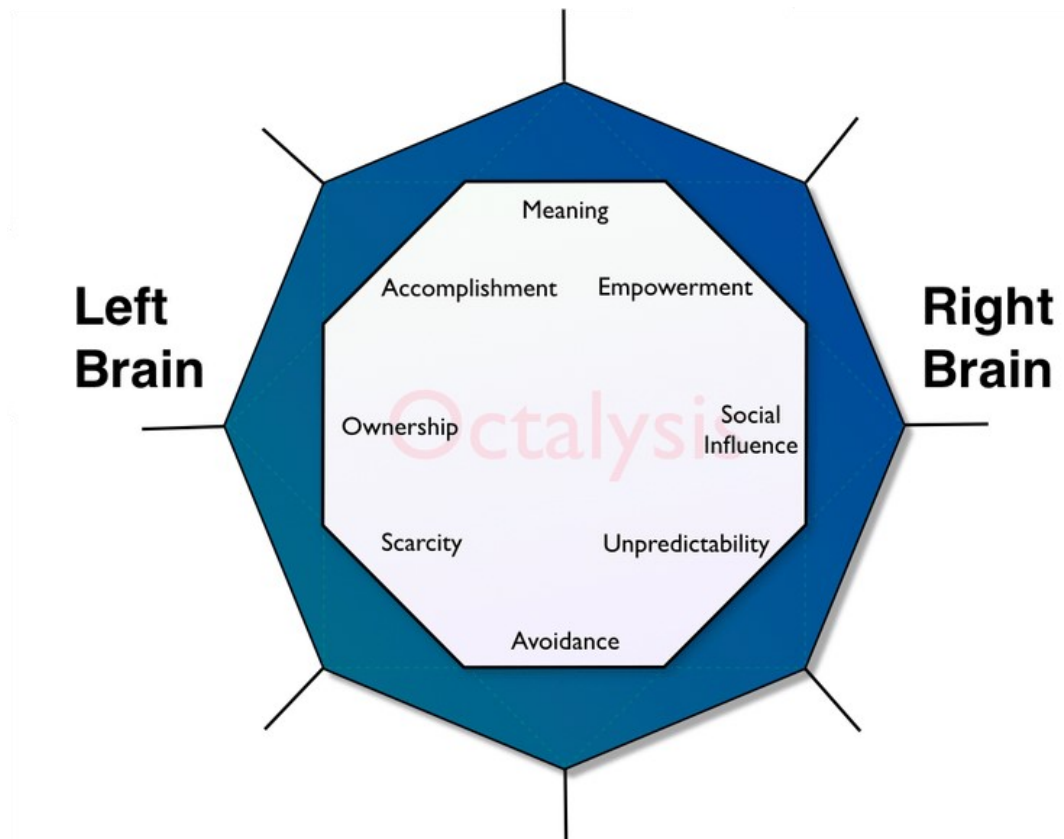


Figure 4. Left Brain & Right Brain Drivers

Left Brain & Right Brain Drivers. Within the Octalysis framework, core drivers are allocated in a way to represent two sides of the brain, explaining the nature of core drivers. That way, Right Brain Drivers are more related to creativity, social aspects, and self-expression; these core drivers are intrinsic motivators. On the other hand, Left Brain Drivers are more related to logic, ownership, and calculation; these core drivers and intrinsic motivators. It is important to note that this representation is not scientifically based, but rather symbolic, to make the framework easier and more effective to use.

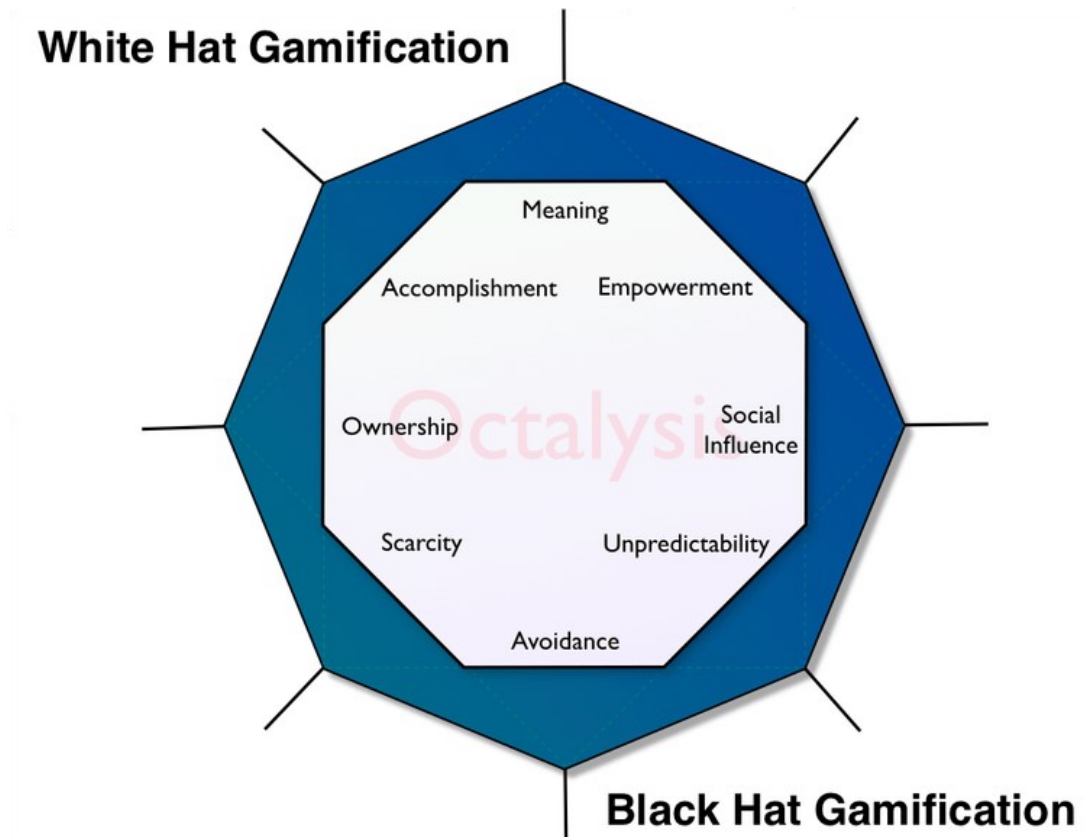


Figure 5. White Hat & Black Hat Gamification

White Hat & Black Hat Gamification. Additionally, another element of the Octalysis framework is that core drivers at the top of the octagon are considered by Yu-Kai Chou as positive motivators (White Hat), while ones in the bottom – negative (Black Hat). In other words, if something motivates via expressing creativity or skill mastery, those are positive motivators. If something motivates via fear of loss or avoidance of negative consequences, those are negative motivators.

Black Hat drivers aren't necessarily bad drivers. They can be effectively used to accomplish healthy results, however, unlike White Hat drivers, they won't make the system user feel good. Thus, such negative motivators shouldn't be relied on too much, otherwise, they might encourage the user to leave the gamified system to avoid constant pressure.

3 Methodology

The research question of this study is: **“how gamification affects customer experience in the digital environment?”** This chapter will present research approach and strategy chosen to answer this question, research context, data collection and data analysis processes, and means taken to verify the results.

3.1 Research approach

There are two possible research approaches, inductive (quantitative) and deductive (qualitative) (Saunders et al. 2009, 3).

The deductive approach is used to develop a hypothesis or hypotheses based on existing theory, and then the research approach is formulated to test it (Silverman 2010, 214). This approach is based upon development from general to particular: first, the general knowledge base and theory are established, then, the specific knowledge gained from the research process is tested against it (Kothari 2004). The deductive approach is characterized by having a structured theoretical framework and methodology, operationalizing of concepts in a way that allows testing facts quantitatively, and having an option to statistically generalize obtained data (Saunders et al. 2009, 125).

The inductive approach enables to create a theory from gained data instead of adopting an existing one (Saunders et al. 2009, 126). In this approach, no framework initially informs the data collection, and the research focus can be formed after the data was collected during the research process (Flick 2011, 150). However, even though the inductive approach allows the creation of new theories, it is possible that analyzed data might fit into one of the existing theories (Greener 2008, 18). The inductive research approach is typically used for qualitative research. Interviews, as an approach of collecting primary data, are carried out concerning specific phenomena. Once the data is collected, it may be examined to find patterns between respondents' answers. (Flick 2011, 150)

Research types can be broadly divided into two categories, quantitative and qualitative (Kananen 2011, 36). Quantitative research focuses on the collection of numerical data, a summary of the data, and concluding inferences from the data (Herbst & Coldwell 2004, 15). On the other hand, qualitative research is based on emotions, feelings, sounds, words, and other types of non-numerical data. Information is considered qualitative in nature, and mathematical techniques cannot be applied to analyze such data (Herbst & Coldwell 2004, 13).

An inductive, qualitative approach was chosen for this study. The qualitative approach was chosen due to the lack of numerical data available since interviews were the primary data collection method. An inductive approach was chosen as it was impossible to preestablish strict methodology and theoretical base due to the nature of the topic as well as its relative novelty. Additionally, an exploratory research design was chosen due to the lack of prior research on the topic to conduct formulaic research. This research design approach would allow informing further research on the subject (Neuman 2003, 107).

The research strategy chosen for the study is grounded theory. Grounded theory is a qualitative method based on an inductive research approach whereby patterns identified from the data as a precondition for the study (May 2011, 153). This implies that the results are derived fundamentally from the conducted research, instead of examining whether it fits with the pre-existing framework (Flick 2011, 55). This strategy was chosen as the qualitative nature of the topic, and limited prior research doesn't allow constructing sufficient pre-existing framework.

For this study, a cross-sectional time horizon was chosen, a horizon characterized by limiting the study to a specific time frame (Saunders et al. 2009, 155). This is justified by the time constraints and the lack of resources available for designing a longitudinal horizon study.

3.2 Research context

Interviews with relevant experts were utilized as data collection method for this study. To find experts with knowledge and experiences relevant to the study subject, the researcher utilized his own network, selecting three participants in the end.

The first expert is an entrepreneur, co-running his own company. He has rich experience of implementing gamification elements and gamified solutions across various web and mobile applications. Additionally, he has an in-depth expertise in the nuances of the customer-facing digital environment.

The second expert is a freelance marketing consultant and has experience of working in a creative marketing agency. He provided strategical guidance in regards to how and when gamified solitons should be implemented.

The third expert is a senior lecturer in an educational institution. He has practical experience of designing and creating video games. He has profound understanding of gamification principles and academical ground behind them. Particularly, from utilization of gamification in educational practices perspective.

Further into the paper, interviewees are referred as 1, 2, and 3 accordingly.

All collected data for this study is based upon knowledge and opinions of the aforementioned experts, thus, may be affected by their biased views.

3.3 Data collection

The primary method of data collection for this study was semi-structured, in-depth, face-to-face interviews. Semi-structured interviews cover a range of themes with no strict structure, thus, questions may vary depending on the discretion of the researcher (Saunders et al. 2009, 320).

The semi-structured interview method was chosen due to the inductive, exploratory nature of the study. No strict pre-defined theoretical framework and ground theory as a research strategy would not allow structured interviews to gather sufficient

amounts of in-depth data, while unstructured type had a risk of drifting away from the study subject to irrelevant topics during the interview.

According to Creswell (2009, 98), interviews are beneficial when direct observation of participants is not possible, and historical information is required. It was the case for the study, since direct observation is only possible in a longitudinal horizon study, and in a cross-sectional horizon study, historical data is required to build an understanding of gamification effect on customer experience.

At the same time, interviewees might give bias responses due to the presence of the researcher as well as due to participants' views shaping provided information (Creswell 2009, 98). The researcher attempted to neglect this threat to the study's validity by structuring interviews to get the most objective responses in the given context.

Due to the explorative nature of the study and lack of unified points of view on the study subject, participants were chosen to have diverse experiences and expertise regarding gamification.

The first specialist had practical experience of implementing gamified solutions in the digital environment. The second specialist, a digital marketing expert, took part in several digital gamification projects as a strategy coordinator. The third specialist is teaching and researching gamification from an academic standpoint, particularly focusing on how gamification can engage a user in the digital environment.

Two interviews were conducted face-to-face and were recorded with a self-phone audio recorder. One interview was conducted remotely with Zoom software and was recorded with a build-in Zoom recorder feature. Each interview took from 40 to 60 minutes.

3.4 Data analysis

The data analysis consisted of 4 consecutive steps: organizing data, coding data, drawing conclusion from coded data, representing findings.

For the first step, interview data were transcribed from audio format to the text format to simplify the data analysis. Additionally, one of the interviews was conducted in the Russian language, so it had to be translated first.

Edited transcription approach was utilized to make data more readable, thus, easier to analyze. Edited transcription includes only relevant parts of the audio files, removing any stuttering, interjections, or sometimes whole words/sentences irrelevant to the interview subject. This approach sacrifices the exact context of the discussion but significantly improve the readability. (Donders 2018)

This chose is justified by two main reasons. First, one of the interviews had to be translated into the English language from Russian. Due to language differences, it was impossible to transcribe the interview word to word. Second, due to the semi-structured nature of the interviews and prior acquaintanceship of the research with all participants, sometimes discussions switched to topics completely irrelevant to the study subject.

For the second step, data were coded by themes and theme subtopics. Since the research strategy chosen for this study is grounded theory, the themes derived from the data, contrary to deriving from the pre-defined theoretical framework. The researcher repeatedly studied transcribed interviews in search of relevant to the study problem themes mentioned by each of the three participants. In the end, 4 common themes were identified: digital customer experience, positive effect of gamification, negative effect of gamification, and additional findings.

For the third step, based on the pre-defined Octalysis framework and the researcher's judgment, conclusions were drawn from the theme organized data.

Finally, those conclusions were visualized in the form of the text, images, and theory was formalized regarding the effect of gamification on customer experience in the digital environment.

3.5 Verification of the results

According to Kananen (2011, 66), reliability and validity concepts are difficult to verify in qualitative research, as they were originally meant for quantitative research.

Furthermore, unlike quantitative methods where a copy of the questionnaire and statistical results can be provided in the appendix as evidence of findings, qualitative research methods don't allow providing full evidence in such an immediately accessible manner. Thus, data included in the study is selective but presented in a way to construct a meaningful, holistic picture. (Moghaddam 2006) Therefore, in the case of grounded theory research design, it is important to track the process as it evolves and to point out critical breakthroughs in terms of theory formation (Goulding 1999, 20).

Overall, grounded theory is often criticized due to its methodology stressing the importance of generating a theory at an expense of theory verification and validation (Haig 1995).

This study takes the perspective of the Barney G. Glaser grounded theory approach. According to Glaser, "The goal of grounded theory is to generate a conceptual theory that accounts for a pattern of behavior which is relevant and problematic for those involved. The goal is not voluminous description, nor clever verification." (Glaser 1978, 60) Mr. Glaser questions the traditional Qualitative Data Analysis approach and sees it as somewhat suboptimal as it forces the data to be analyzed strictly according to the pre-defined theoretical framework and prevents emergence of concepts and findings which could have been derived from the data without limitations of QDA. (Glaser 2004)

Thus, the main validation method used to verify the results of this study is a constant comparative method. According to Glaser (2004), this method enables theory generation through systematic coding. Three types of comparison are involved in the process. Incidents are compared to incidents, establishing uniformity and varying conditions of them. The uniformity and the conditions turn to concepts. Then, concepts are compared to more incidents to generate more concepts and

hypotheses. Finally, concepts are compared to concepts to identify best fitting concepts, merge them with the hypothesis, and establish a theory.

The utilization of the constant comparative method was possible due to the extensive practical gamification experience of all the participants. This led to a lot of practical examples of gamification implementations being mentioned during the interviews, allowing the comparison of incidents to incidents.

Overall, the research admits the lack of validity and verification in this study from a traditional QDA point of view. However, the nature of the study subject, time constraints, lack of resources, and data available convinces the research to adopt such a controversial research approach.

4 Research results

This chapter will present the study findings resulted from the analysis of the collected data. The analysis was approached in the following manner.

The first step was to go through the transcription of the interviews, identifying four common themes between the three interviews, which are represented in Table 1. Subsequently, theme coded data was organized in an Excel sheet.

The second step was to go through common theme coded data to identify more narrow themes, expanding each of the common themes by several subtopics. Subtopics of each common theme are represented in Table 2, Table 3, Table 4, and Table 5.

The final step was to put fully coded data through the lenses of the Octalysis framework for subtopics, where it was applicable. In the end, findings retrieved from the data were presented in the Research results chapter, utilizing quotes of the interviewees for greater presentation clarity.

Table 1. Main themes identified from the analyzed data

Digital customer experience
Positive effect of gamification
Negative effect of gamification
Additional findings

4.1 Digital customer experience

In order to identify how gamification can affect the customer experience in the digital environment, it was decided to explore what distinctive features digital customer experience has. As all three interviewees had extensive experience of

working with digital technologies, they could provide an in-depth insight into this topic.

Table 2. Digital customer experience subtopics

Digital customer experience
Instancy/rapidity
Process guiding
Process smoothness
Process predicatbility
Entertainment

The first identified feature of positive digital customer experience is **instancy/rapidity**. In this case, instancy/rapidity is not only about technical aspects (e.g how quickly the web page loads or how quickly application starts up), but also about catching the person's attention instantly, not allowing him to leave. Whatever message is being delivered through a webpage or application, it should be clear and straightfoward for everyone.

“Я имею ввиду, что в онлайн ты должен сразу заинтересовать человека. Потому что, вне онлайн, если человека запутался или не заинтересован – он может спросить менеджера/консультанта. В онлайн, если человеку не интересно, его это не привлекает – он просто сразу уйдет. ... Сейчас, люди проводят в сети очень много времени, через них проходит так много информации. Раньше, люди были более терпеливы в сети, но с развитием интернета люди стали проводить меньше времени на странице. Если что-то слишком медленное, если что-то неинтересно – он просто уходит.”

“I mean, in the digital environment, you have to immediately interest a person. Because in a non-digital environment, if the person is not interested right away- he can ask the manager/consultant. In digital, if the person does not find something interesting, attractive – he leaves immediately. ... Nowadays, people surf the net so much, consume so much information. In the past, people were more dedicated to whatever are they doing on the internet, but with the development of the internet, people spend less time on a page. If something is too slow, if something is not interesting – he just leaves.” (1)

One reason justifying the importance of instancy/rapidity would be an increasing amount of content people face on the Internet. There is heavy competition for users' attention. If the message is not clear or technology is lacking, disrupting the customer experience, users are very likely to leave for the competitors' content.

Additionally, the instancy/rapidity feature goes in line with Loyalty Lion (2019) point of view, stating that since the customer invests less time and effort into opening an app or visiting a website (in comparison with visiting the physical store), he/she will be more likely to leave should unsatisfying experience occur.

Another important element of digital customer experience is **process guiding**. In the digital environment, the user has to be constantly guided whether he is being convinced to buy something, being informed about something, or processes are part of the company's product/service. This will prevent the user from getting confused and leaving as well as will allow incentivizing him to take certain actions, beneficial for achieving business objectives.

“Еще один важный момент это направлять людей в процессе. По моему опыту, сейчас люди не любят разбираться самостоятельно в онлайн. Даже если это не так сложно, они все равно не будут этим заниматься. Может быть, раньше юзеры были готовы к тому чтобы разбираться самостоятельно, но сейчас все привыкли к тому, что им все показывают. Надо буквально брать людей за руку и показывать им что ты от них хочешь, развлекая их в процессе.

Если мы вели людей шаг за шагом, постоянно показывая что нужно делать, конверсия была намного выше, в сравнении с тем, когда мы оставляли их разбираться самостоятельно.”

“Another important factor is to guide people through the process. From my experience, people in digital don't like sorting out things on their own nowadays. Even though it might be not challenging to do, they still would rather leave. Maybe in past users been more loyal to not being guided, but now people are used to be guided. You have to literally take their hands you lead them wherever you need, entertaining them in the process.

If we guided users step by step, constantly telling them what they should do, the conversion rate was much higher in comparison with when we left them to sort out anything on their own.” (1)

In addition to guiding, there are some other digital customer experience features related to processes.

One is the overall **smoothness of a designed process**, meaning that the process should be clear and structured, and the user shouldn't be distracted by any technical or design flaws. Of course, this would also relate to non-digital customer experience. However, in the context of the digital environment, process smoothness plays an even greater role since, as was mentioned before, customers are much more demanding and less forgiving in the digital environment.

On top of that, **the user should be aware of where the process leads him**. It doesn't mean that the element of predictability should be completely excluded from the process design. However, the user should have a general understanding of what is happening, what is going to happen next, and what would be the outcome.

Another notable feature of positive digital customer experience is **not to overwhelm the customer with information**. Whatever message is being broadcasted, it shouldn't be delivered in one, gigantic piece (e.g. "wall of text"), but instead, it should be split into smaller, digestible pieces. People generally feel more comfortable dealing with smaller pieces of information in comparison with taking it all at once. Thus, such information splitting techniques are used for comforting the user, not forcing him to make an extra effort, improving the experience.

"Я заметил что длинные формы, большие куски информации не работают, даже если информация важна и полезна для юзера. Большинство просто не может переварить это, они сразу же теряют интерес, как только видят много информации сразу.

У меня сложилось впечатление что, во-первых, людей пугает когда большое количество информации выдается сразу и, во-вторых, люди просто не могут воспринимать большие куски информации."

"One thing I've noticed that long forms, large chunks of information do not work, even if the information is useful for the user. A lot of people just cannot process it, they lose interest as soon as they see large chunks of information.

I had the impression that first, people are just scared off by large amounts of information/work given at once, and second, people are simply not able to digest such large chunks." (1)

One major topic, that came up during all three interviews, was that **people always want to be entertained**.

"Чтобы люди не делали, они всегда хотят развлекаться, получать какие то позитивные эмоции. ... По сути, нам всегда нужно развлекаться."

“Whatever people do, their main goal is to be entertained, to have fun, to get some positive emotions. ... We are by nature need to be entertained.” (1)

Interviewees agreed that whatever people are doing, whatever their goals are, they always pursue getting positive emotions, enjoying themselves, and having fun.

Having fun can be hard to define from a scientific standpoint. However, Self-Determination Theory attempts to explain why people get positive emotions from certain actions. It explains that certain actions are aimed at satisfying internal, psychological needs of Autonomy, Competence, and Relatedness, which aren't that obvious to us as physical needs.

In regards to gamification, in the Octalysis framework Yu-kai Chou (2020) breaks down how each gamification element affects us emotionally and how they can contribute to satisfying aforementioned needs.

The next subchapter will present how gamification can positively affect the digital customer experience.

4.2 Positive effect of gamification

Before diving deeper into findings, it is important to note that all of the interviewees agreed that **it is difficult to precisely measure the effect of gamification on digital customer experience.**

“If you are thinking from a marketing point of view, engagement, loyalty to the brand is also difficult to measure. Overall, it is quite hard to precisely measure the effect of gamification.” (3)

First of all, it is not easy to measure the customer experience itself. Most companies use surveys and questioners to determine customer satisfaction. However, such approach allows measuring customer experience only from one perspective, leaving aside full grasp of experience versatility. (Gartner 2020) Additionally, when using surveys, customers might be not motivated enough to invest time in leaving genuine, in-depth feedback.

Another challenge with measuring the effect of gamification comes from users rarely consciously noticing implemented gamified elements to give clear, constructive feedback.

“По моему опыту, большинство людей не замечало элементы [геймификации], которые мы вводили. Они не осознавали их присутствие и не могли дать конкретный фидбэк.”

“From my experience, people mostly didn’t consciously notice [gamification] elements we implemented. They didn’t register them to give any clear feedback.” (1)

In addition, sometimes it can be challenging to simply tell apart gamification elements and other elements of engagement.

“When coaching, I was focusing on how to engage final users of the game/application. And it is actually hard to draw a line on where the gamification starts and what are other kinds of engagement. ... If you are talking from a research point of view, sometimes it is hard to tell which gamification elements really work.” (3)

Table 3. Positive effect of gamification subtopics

Positive effect of gamification
Difficult to precisely measure the effect of gamification
Accomplishment core driver instruments
Action feedback
Positive effect of Black Hat elements
Additional value of gamification

However, despite these challenges with measuring the effect of gamification, all of the interviewees agreed that it generally positively affects the customer experience.

“Мы отправляли CX опросники, и люди оценивали CX выше с элементами геймификации, чем без них. Однако, мы не смогли оценить как каждый отдельный элемент повлиял на этот опыт. Я лично считаю что юзерам нравились эти элементы, но у меня нет данных чтобы подтвердить эту догадку.”

“We did some CX surveys, and people rated their experience as more positive with gamification elements than without. However, we couldn’t evaluate how each, separated element affected the experience. I personally think they enjoyed these features, but I don’t have data to base this assumption.” (1)

“I believe that gamified elements can truly engage people. They make people loyal to the brand, make people come back to the website/app. (3)

Out of a great variety of gamification instruments, interviewees pointed out a few ones that proved to be effective in reaching business goals and improving customer experience.

The first set of instruments belongs to the **Accomplishment core driver**. According to Yu-kai Chou (2020), Accomplishment belongs to White Hat, Left Brain core drivers, meaning it incentivizes intrinsic motivation and appealing to the rational side of the brain. Since it motivates intrinsically, it aims at satisfying internal needs, meaning it should bring positive emotions. This core driver includes gamification techniques such as earning badgers for achievements, leaderboards, progression bars, status points, and others.

One of the interviewees gave an example of how a progression bar was used to put users through the registration process.

“Мы проводили эксперимент, у нас была длинная регистрационная форма и форма разбитая на несколько не больших кусков, с прикрученным баром прогрессии. Форма разбитая на малые куски увеличила конверсию в два раза.”

“Once we conduct an experiment, we had a long registration form to fill and a form separated into small chunks with a progression bar on top of it. Separated form improved the conversion rate twice.” (1)

This also shows how a progression bar can be utilized to deliver information in smaller pieces and to guide the user through the process, ultimately improving the customer experience.

Another example was points implemented in a forum-like website. These points allowed users to unlock special platforms features and to earn a badge for a certain amount of points. Additionally, those points could be gifted to other users.

“Мы сделали поинты, рейтинговую систему, которые можно было получить за комментирование, регулярные посещения, лайки твоих постов и так далее. Можно были эти

поинты передавать другим юзерам, можно было их получать от них, можно были открыть специальные фишки, можно было получить эмблему за определённое количество поинтов. И это сработало, людям понравилось.”

“So we implemented points, a rating system, you could get for various actions like commenting, regular platform visits, getting your posts liked. You could give those points to other users, you could receive them, you could unlock special features with it, you could get a badge for a certain amount of points. And it worked, people liked it.” (1)

Additionally, it is important to point out that points themselves hold no additional value to the user. They have to be used to unlock special features, to earn a badge, or to rank higher in the leaderboard. Simply adding points with no accompanying mechanics won't benefit to customer experience.

“Поинты сами по себе, без награда, не работают. Они бессмысленны. Но если за них можно что то получить – тогда да, люди намного охотнее будут стараться их заработать.”

“Points on their own, with no reward behind them, won't work. They are meaningless on their own. But if you can get something for them – then yes, people would be much more eager to earn them.” (1)

In this particular example, points also correspond with Ownership and Social Influence core drivers, both of which are neutral drivers, not belonging to White or Black hat gamification.

In both examples, gamified solutions led to people spending more time on the platforms, to improved conversion rates. Additionally, Yu-kai Chou states that utilization of the Accomplishment driver leads to a positive experience, which was also proved by conducting CX surveys for both cases. Thus, it can be concluded that these gamification techniques improved the customer experience.

Another technique that demonstrated itself effective for enhancing customer experience is **action feedback**. Since action feedback is a response to a user action, it can relate to multiple core drivers. For example, action feedback can take the form of a progression bar when filling a form, earning points for posting a comment, a visual effect from pressing a button.

“В частности, говоря про бар прогрессии, он позитивно влиял на опыт так как люди получали какую то обратную реакцию, результат их действий. CX опросники показали что люди любят информация разбитую на небольшие куски и фидбэк, видимые результаты того что они делают.”

“Particularly talking about progression bar, it affected positively since people got some sort of feedback, results of their actions. From CX surveys we conduct, it was clear that people liked smaller chunks of information, as well as some sort of feedback, visible results from whatever they are doing.”
(1)

“Another example [of effective gamification element] we found was an immediate response. That’s if you do something – you get some kind of reward.” (3)

Unlike the physical environment, the digital environment is non-native to people, so it is much easier to get lost there. Thus, for providing the best possible experience, it is important to constantly guide the user and give appropriate feedback to his actions, even when it is as primitive as giving a button visual effect.

“Почему сейчас очень много кнопок в онлайн, в приложениях имеют какой то визуальный или звуковой эффект? Люди хотят видеть, если они что-то делают – что-то происходит в ответ, давай какого-то рода фидбэк, даже такой простой.

Это настолько распространено, что если кнопка не имеют какого то просто фидбэк эффекта – людей это будет смущать, и они не будут понимать работает ли кнопка вообще.”

“Why nowadays a lot of buttons on the internet, in apps have some kind of visuals effects, sounds? People need to see that if they do something – it does something back, giving you some kind of feedback, even as simple as that.

It is so common nowadays that if the button doesn’t have this simple feedback effect – people get confused and question themselves if the button even works or did it break down.” (1)

However, it can be argued that visual response from pressing a button is not a gamification element but rather an interface design element. This is one of the cases where it is difficult to draw a line between gamified solutions and other engagement elements, making exploration of gamification effect even more challenging.

Finally, it was noted that the utilization of **Black Hat gamification techniques does not necessarily result in negative customer experience.**

“It is possible to use both hats elements for positive experience and vice versa.” (Mikkulainen 2020)

For example, gamification techniques related to the Unpredictability core driver can be used to enhance the customer experience. The most common gamification solutions incentivizing this core driver would include random rewards, sudden rewards, and other random, unpredictable events. Yui-kai Chou (2020) points out

that this is a mostly harmless core driver. However, this is also the primary factor behind gambling addiction.

As for the positive effect of the Unpredictability, it can drive curiosity and keep the user engaged and interested in what is going to happen next.

Avoidance is another Black Hat core driver that can be utilized without negative consequences for the experience. One example given by the interviewee is related to e-commerce. Sometimes, people go through the entire process of picking certain goods, adding them to the check-out cart, but then they leave the website instead of buying items in their carts.

In order to prevent this from happening, avoidance core driver can be utilized. Once the customer added several goods to the cart, a pop-up message offering to check out now for a 5% discount. Should the customer leave anyway, the discount will fade away.

According to Yui-kai Chou (2020), fading away opportunities have strong utilization of the Avoidance core driver as people feel like they must immediately not to lose the opportunity forever. Thus, the aforementioned example should be a strong motivator for customers to finish a buying process. Additionally, since the Avoidance wasn't an initial or primary core driver for this process, users are less likely to get negative experience out of it. However, it is important to note that the overutilization of this core driver is likely to lead to negative consequences to the customer experience.

To summarize, all of the interviewees agreed **that gamified systems, if designed correctly, provide additional value to the users**. Even though gamification might manipulate people into taking actions they otherwise wouldn't have taken, it also provides positive emotions. Apart from reaching business goals such as increasing sales or conversions, gamification also brings value by intrinsically motivating users and their satisfying internal needs.

"I think gamification, apart from business objectives such as sales, brand awareness, etc. also simply bring people good time, good experience." (2)

"Of course, gamification is manipulation of people's subconsciousness but that not the only thing there. People also get genuine fun from using gamified systems." (3)

At the same time, all of the interviewees agreed that gamified solutions do not deliver exclusively positive customer experience. A poorly designed gamified system can deal more harm than good. Even reliance purely on White Hat core drivers doesn't guarantee positive customer experience.

The next subchapter will present findings regarding the negative effect of gamification on customer experience.

4.3 Negative effect of gamification

Table 4. Negative effect of gamification subtopics

Negative effect of gamification
Different perception
Addictive nature
Manipulating with Black Hat elements
Poor design

Even well designed gamified systems can cause negative customer experience. One reason for that is a **different perception**. Gamification is not a universal tool, and different people perceive things differently. For some, even the most effective gamification elements can be unnoticeable, useless, or irritating.

“Кроме того, подобные небольшие элементы [геймификации] действуют на всех по-разному, кто-то их игнорирует, им все равно.”

“Additionally, these kind of small details [gamification elements] do not affect everybody in the same manner, some people just ignore it, they don't care.” (1)

A well designed gamified system would bring a positive experience to a heavy majority of users. However, there also will be users who might find gamification elements annoying and distracting from their original goal of visiting the website/application.

Similar to video games, another downside of gamified systems is their **addictive nature**. Of course, due to the number of design differences, gamified systems aren't as addictive as games. However, addiction is still something that can negatively affect long-term relationships with customers.

“Gamification certainly can bring you a good time, however, they also might be addictive to the point you don't enjoy them but keep playing anyway.” (2)

In the short term, creating a very addictive gamified system can be beneficial for the company. However, in the longer term, the customer might feel anxious and stop enjoying the process while keep using the system out of habit. It is particularly noticeable if the system is aimed at manipulating users into taking designated actions instead of bringing additional value.

Overall, gamification has a number of tools **to manipulate users into taking certain actions at the cost of customer experience**. These tools will exploit Black Hat core drivers such as Scarcity, Avoidance, and Unpredictability, resulting in the user taking the intended action but getting negative experience and being left unsatisfied.

This approach is focused on very short-term benefits for the company and doesn't have a goal to retain the customer. Most of the modern business models focus on keeping customers for the long-term. However, there are also business models where such approach can be utilized.

Finally, a **poorly designed gamified system can be a source of dissatisfaction than a source of added value for users**. Even with reliance on purely White Hat core driver, not thought out gamified system (e.g. points are meaningless and have no function apart from earning them; badger are accessible for everyone from the get-go instead of displaying certain achievements; etc.) will be unnoticed at best or annoying and irritating at worst.

4.4 Additional findings

Due to the semi-structured nature of the interviews, the subject of interviews occasionally drifted away from the research main subject. This resulted in several

findings that do not demonstrate the effect of gamification on customer experience but showcase other features of gamification.

Table 5. Additional findings subtopics

Additional findings
Gamification helps to reach business objectives
Gamification is more effective with younger audiences
Gamification will evolve and spread in the future

First such finding is that **gamified solutions improved KPIs and helped achieving business objectives**.

“Каждый раз геймификация влияла положительно. Продажи, конверсии увеличивались.”

“Every time gamification elements affect positively. Increased sales, conversions.” (1)

Even the simplest, most primitive gamification elements increased sales, conversions, time spent on website/application. These elements managed to catch the users' attention and interest, guiding them through intended processes.

The second finding is that **gamified solutions are generally more effective with younger users**, aged roughly below 30 years old. This conclusion emerged from two factors.

The first factor is that younger users demonstrated less patience in the digital environment. They are less likely to leave once they get confused or lose interest. They are less dedicated than older users to sorting out how website/application and what is in it for them. Younger users tend to leave and move on as soon as they face the smallest dissatisfactory experience. Application of gamification reinsures positive experience for them.

“Наверное, нельзя сказать, что это факт что юзеры постарше более сосредоточены в онлайн, но у меня сложилось впечатление, что чем моложе юзер – тем более он беспечен.”

“Perhaps, you can't say that it is a fact that older users are more careful with whatever they are doing in digital, but I got the impression that the younger a user is – the more careless he is about it.” (1)

The second factor is that gamified solutions demonstrate themselves to be more effective with younger users. They keep younger audiences on the website/application for a longer time, they drive greater sales and conversion numbers, in comparison with users of older age.

Finally, all of the interviewees agreed that **gamification will evolve and will be even more spread in the future.**

“Один из трендов геймификации заключается в том, что она эволюционирует, становится более изощрённой. Раньше, примитивных элементов, на подобии поинтов или баджеров, было достаточно. Сейчас же, все их используют, и людям больше не интересны такие примитивные решения.”

“One particular trend is that gamification is evolving, becoming more sophisticated. Earlier, primitive gamification elements such as PBL were more than enough. Now, everybody does this, and people aren't that interested in such primitive solutions.” (1)

As competition in the digital environment for peoples' attention grows, gamified systems will be more spread. Since they provide additional value apart from the good/service the company is offering, gamified solutions will be a competitive advantage for attracting and maintaining people's interest. Gamified systems will become complex and will go way beyond simple PBL solutions. At the same time, gamified systems will stay easy to start with and user friendly in order not to scare off potential customers with its internal complexity.

However, one particular field where gamification can grow even wider is education. Since students should be initially motivated to study, gamified systems don't have to be limited to more simplistic design allowing for more complex, in-depth solutions that will be more effective for the educational process.

5 Discussion

This study aimed at exploring how gamification affects customer experience in the digital environment. This chapter will summarize the aftermath of the study by answering the research question, pointing out the practical implications of the results, and giving a recommendation for future research.

5.1 Answer to the research question

The research question of this study is: **“how gamification affects customer experience in the digital environment?”**. The research strategy of this study is grounded theory. Thus, the result of the study should be a new theory that emerged from the concepts that were identified from the collected qualitative data.

After the analysis of interviews conducted with three relevant experts with diverse backgrounds and experiences, the following theory could be proposed. **Gamification should positively affect customer experience in the digital environment for the majority of users, with a minor possibility of negative experience backlash from the utilization of certain gamification techniques.** The source of positive experience from gamification lies in intrinsically motivating the user to take certain actions aimed at satisfying his internal needs. Such conclusion was made after carefully analyzing data, collected via interviewees with the experts, through lenses of the Octalysis framework.

In order to give a more detailed answer to the research question, it is important to identify which aspect of digital customer experience gamification can affect and what that effect would be. Customer experience consists of many elements, and not all of them can be improved by means of gamification. However, since gamification can be seen as optimizing processes for the satisfaction and engagement of its participants, it could be assumed that gamification affects nuances related to processes in the digital environment. According to the interviewed experts, such nuances include process guiding, process smoothness, process predictability. Additionally, the need

for instancy/rapidity and entertainment in the digital environment can be also partially applied to the process design.

In order to identify how gamification affects those nuances, positively or negatively, and, subsequently, overall customer experience, the Octalysis framework was utilized. The creator of the framework, Yu-Kau Chou, separates gamification elements into two groups, White Hat (positively affecting experience) and Black Hat (negatively affecting experience). Gamification elements, brought up during the interview, were put through this framework to identify how would they affect the customer experience. However, Yu-Kau Chou himself states that such separation to White Hat and Black Hat elements is rather conditional, and the real effect of the gamification element is largely dependent on the context of its implementation. (2020) Thus, in addition to the Octalysis framework, opinions of the interviewees were also taken into account for a more accurate assessment, providing the following results.

Accomplishment gamification techniques demonstrate themselves beneficial for enhancing customer experience by meaningfully rewarding users for taking designated actions and putting in an effort. Action feedback techniques effectively guide users through processes and keep them engaged.

All of the interviewees agreed that, regardless of the manipulation aspect of gamification, it also provides additional value for the users, delivering positive emotions and experiences. Additionally, Black Hat core driver techniques can also be leveraged to achieve the aforementioned enhanced customer experience.

At the same time, misuse of Black Hat and extrinsically motivating techniques can lead to negative customer experience. A poorly designed gamified system can lead to anxiety, irritation, and general dissatisfaction from the users' perspective. On the other hand, a gamified system intentionally designed to manipulate at the cost of customer experience can be beneficial to certain business models.

A carefully designed gamified system can also deliver negative customer experience. It can derive from the varying users' perception of gamification techniques. The minority of users can find certain gamified elements not as engaging, ignoring them at best, and being irritated by them at worst. On top of that, the system can be too

addictive, which would negatively affect the long-term relationship between the user and the system's owner.

As an additional finding, gamified solutions have a significant positive impact on achieving various business objectives and seems to be more effective with younger audiences.

Overall, regardless of the core driver, all utilized gamification techniques should come as one thought out gamified system. Implementation of a gamification techniques without planning out its interaction with each other is very likely to be non-beneficial or counter-beneficial for the customer experience.

5.2 Practical implications

The results of this study demonstrate how gamification can be utilized to create additional value for the customer in the digital environment. In the environment, where competition for people's attention grows daily, creating additional value is a strong competitive advantage. Moreover, establishing such a delicate and intricate process as satisfying the internal needs of Autonomy, Competence, and Relatedness, would notably distinguish an organization among competitors.

Companies should take note of how gamification tools can be utilized to empower customer experience, increasing customer retention rates, and ultimately improving brand image. Additionally, it should be pointed out how even the simplest, easy to implement gamified elements can improve the customer experience as well as help to achieve business objectives. Thus, gamification solutions are worth exploring, even with rather limited resources.

From a broader perspective, findings of this study can be utilized in internal marketing and management of organizations, in the educational sector, in other fields where digital technology is spread and people's dedication to processes is important. How to engage people, guide them through designated steps, entertaining, and providing other additional value in the process are very universal

insights. Gamification itself is not a universal tool, but certain principles and techniques from it can be very adaptable for a great variety of cases.

Additionally, findings regarding nuances of digital customer experience can be utilized outside of the scope of gamification for designed virtually any digital application.

5.3 Limitations of the research

The study had several notable limitations mostly related to challenges with data collection, data availability, and validation of the study.

The first major challenge was the qualitative nature of the topic. Firstly, it is difficult to accurately measure customer experience as it is an intricate concept related to feelings and emotions. Secondly, it is particularly challenging to measure the effect of gamification as it functions alongside other aspects of the digital environment, such as visual or sound elements, and cannot be measured accurately separately. Finally, the analysis of qualitative data and the chosen method of data collection are inevitably affected by bias opinions of interviewees or the researcher. On top of that, collected data could not be strictly fit into a pre-defined theoretical framework to give a detailed answer to the research question. Such approach enabled a more careful data analysis process, resulting in a few additional findings. However, at the same time, it disrupted the consistency of the research process.

Additionally, time and resource limitations did not allow for a longitudinal study, which prevented from retrieving first-hand data. Thus, all of the data has to be collected from the interviews with relevant experts. This data was inevitably affected by the perception and bias opinions of the interviewees.

The second challenge was data availability. Due to the recent novelty of the gamification topic, and rather narrow focus on one particular aspect of it, it was challenging to find experts with relevant knowledge and expertise. Additionally, gamified solutions in the business environment often primarily focus on achieving various business objectives, establishing customer experience as a secondary

objective, or not a priority at all. This leads to challenges in data collection as effect on customer experience often would not be tracked.

Finally, the grounded theory research strategy is often criticized for stressing the importance of theory generation at the expense of theory validation (Haig 1995). The only validation method used in this study is a constant comparative method. Due to the data volume being not significant enough for this method to be as effective, it can be argued that this study lacks validity and verification.

5.4 Recommendations for future research

Due to the relatively broad scope of the study, it provides rich ground for future research. Positive and negative effects of gamification, utilization of gamification in other fields, nuances of digital customer experience, and other themes could be explored further.

The most obvious direction would be to confirm or deny the formulated theory with longitudinal research and first-hand data collection. With sufficient resources, it should be possible to conduct research with higher validity which would confirm or deny the findings of this study.

Other benefits and downsides of gamification could be explored further. This study focuses primarily on the aspect of experience deriving from taking part in gamified processes. However, aspects of engagement, manipulation, the correlation between achieving business objectives and enhancing the customer experience can be studied further.

Additionally, the study takes the perspective of external gamification, i.e. gamification facing current and prospective customers. A closer look could be taken at internal gamification, which is utilized for improving internal processes of an organization, and at behavior-change gamification, which is utilized for creating beneficial habits among users. All three gamification types have different circumstances to them and varying initial motivation of users, allowing for multiple research perspectives. (Werbach & Hunter 2012, 20-23)

Finally, digital customer experience and its differences from non-digital experience could be explored. In the increasingly digital world, studying and understanding nuances of the digital environment would be highly relevant.

References

- Accenture, 2013. *Accenture Study Shows U.S. Consumers Want a Seamless Shopping Experience Across Store, Online and Mobile that Many Retailers are Struggling to Deliver*. Accessed on 15 December 2019. Retrived from <https://web.archive.org/web/20170616234005/https://newsroom.accenture.com/news/accenture-study-shows-us-consumers-want-a-seamless-shopping-experience-across-store-online-and-mobile-that-many-retailers-are-struggling-to-deliver.htm>
- Ackerman, C., 2019. Self-Determination Theory of Motivation: Why Intrinsic Motivation Matters. Accessed on 15 Novmeber 2019. Retrived from <https://positivepsychology.com/self-determination-theory/>
- Adamou B., 2018. *Games and Gamification in Market Research: Increasing Consumer Engagement in Research for Business Success*. Kogan Page
- Alsawaier R., 2017. *The Effect of Gamification on Motivation and Engagement*. International Journal of Information and Learning Technology.
- Ameyo, 2019. *What Is Customer Experience*. Accessed on 12 December 2019. Retrived from <https://www.ameyo.com/customer-engagement/what-is-customer-experience>
- Anderton K., 2018. *The Impact Of Gaming: A Benefit To Society [Infographic]*. Accessed on 07 December 2019. Retrived from <https://www.forbes.com/sites/kevinanderton/2018/06/25/the-impact-of-gaming-a-benefit-to-society-infographic/#640fd6f4269d>
- Borowski C., 2015. *What a Great Digital Customer Experience Actually Looks Like*. Harvard Business Review. Accessed on 16 December 2019. Retrived from <https://hbr.org/2015/11/what-a-great-digital-customer-experience-actually-looks-like>
- Bowden L. H. J., 2009 *The Process of Customer Engagement: A Conceptual Framework*. The Journal of Marketing Theory and Practice, p. 63-74.
- Brodie R. J., Hollebeek L.D., Juric B., Ilic A., 2011. *Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research*. Journal of Service Research, p. 252-271.
- Burke, B. 2014. *Gamify: How Gamification Motivates People to Do Extraordinary Things*. Bibliomotion
- Chou, Y. 2019. *Octalysis – the complete Gamification framework*. Accessed on 20 November 2019. Retrived from <https://yukaichou.com/gamification-examples/octalysis-complete-gamification-framework/>
- Cialdini, R.B., 2006. *Influence: The Psychology of Persuasion*. Harper Business.
- Clarabridge, 2019. *What is Customer Engagement?* Accessed on 25 November 2019. Retrived from <https://www.clarabridge.com/customer-experience-dictionary/customer-engagement/>
- Cramer T., 2014. *Applying the Secrets of Gamification to Your Digital Marketing Strategy*. EContent, June 2014, 8-10.
- Creswell J. W., 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd ed. Thousand Oaks: Sage Publications, Inc.
- Csikszentmihalyi M., 1990. *Flow: The Psychology of Optimal Experience*.

- Donders, T. 2018. *What is a transcription? Edited vs. Verbatim transcriptions*. Accessed on 4 February 2020. Retrieved from <https://www.amberscript.com/en/blog/what-is-a-transcription-edited-vs-verbatim-transcriptions>
- Flick U., 2011. *Introducing Research Methodology*.
- Gartner, 2014. *Gartner Redefines Gamification*. Burke B. Accessed on 20 October 2019. Retrieved from https://blogs.gartner.com/brian_burke/2014/04/04/gartner-redefines-gamification/
- Gartner, 2019. *Customer Experience*. Accessed on 12 December 2019. Retrieved from <https://www.gartner.com/en/information-technology/glossary/customer-experience>
- Gartner, 2020. *How to Measure Customer Experience*. Accessed on 10 March 2020. Retrieved from <https://www.gartner.com/smarterwithgartner/how-to-measure-customer-experience/>
- Glaser B. G., 1978. *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*. Mill Valley, Ca.: Sociology Press.
- Glaser B. G., 2004. *Remodeling Grounded Theory*. Accessed on 7 February 2020. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/607/1315#g311>
- Goulding C., 1999. *Grounded theory: Some reflections on paradigm, procedures and misconceptions*.
- Greener S., 2008. *Business Research Methods*.
- Growth Engineering, 2019. *THE HISTORY OF GAMIFICATION: FROM THE VERY BEGINNING TO RIGHT NOW*. Accessed on December 10. Retrieved from <https://www.growthengineering.co.uk/history-of-gamification/>
- Gupta S., Pansari A., Kumar V., 2018. *Global Customer Engagement*. Journal of International Marketing, 4-29.
- Haig B.D., 1995. *Grounded Theory as Scientific Method*. University of Illinois Press.
- Hamari J., Koivisto J., Sarsa, Harri., 2014. *Does Gamification Work? — A Literature Review of Empirical Studies on Gamification*. 47th Hawaii International Conference on System Science, 2014.
- Hamari J., Lehdonvirta V., 2010. *Game design as marketing: How game mechanics create demand for virtual goods*. Int. Journal of Business Science and Applied Management
- Harmeling C., Carlson B.D., Moffett J., Arnold M.J., 2016. *Toward a theory of customer engagement marketing*. Journal of the Academy of Marketing Science.
- Herbst F., Coldwell D., 2004. *Business Research*. Juta and Co Ltd.
- Hsee C. K., Yu, F., Zhang, J., Zhang, Y., 2003. *Medium Maximization*. Journal of Consumer Research: An Interdisciplinary Quarterly, 1-14.
- Huotari K., Hamari J., 2012. *Defining Gamification - A Service Marketing Perspective*. 16th International Academic Mindtrek Conference.
- Kananen, J. 2011. *Rafting Through the Thesis Process Step by Step Guide to Thesis Research*. Jyväskylä: JAMK University of Applied Sciences.
- Katz E., Lazarsfeld P. F., 1955. *Between media and mass/the part played by people/the two-step flow of communication*. Approaches to media 124–134
- Koestner R., Hope, N., 2014. *A self-determination theory approach to goals*.

- Kothari C.R., 2004. *Research Methodology: Methods & Techniques*.
- Kriss P., 2014. *The Value of Customer Experience, Quantified*. Harvard Business Review. Accessed on 12 December 2019. Retrived from <https://hbr.org/2014/08/the-value-of-customer-experience-quantified>
- Kumar V., 2013. *Profitable customer engagement: concept, metrics and strategies*.
- Lemon K.N., Verhoef P.C., 2016. *Understanding Customer Experience Throughout the Customer Journey*. Journal of Marketing: AMA/MSI Special Issue, p. 69-96
- Liu P. J., Lamberton, C., Haws, K. L., 2015. *Should firms use small financial benefits to express appreciation to consumers? Understanding and avoiding trivialization effects*. Journal of Marketing, 74–90
- Loyalty Lion, 2019. *Differences between online and offline customer experience*. Accessed on 16 December 2019. Retrived from <https://loyaltylion.com/blog/differences-online-offline-shoppers>
- Matos C. A., Rossi C. A. V., 2008. *Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators*. Journal of the Academy of Marketing Science, 578–596.
- May T., 2011. *Social research: Issues, Methods and Research*.
- McGonigal J., 2010. *Reality is Broken: Why Games Make Us Better and How They Can Change the World*. Jonathan Cape
- Moghaddam A., 2006. *Coding issues in grounded theory*. Accessed on 5 February 2020. Retrived from <http://www.iier.org.au/iier16/moghaddam.html>
- Mooney A., Johnsmeyer B., 2015. *I-want-to-buy moments: How mobile has reshaped the purchase journey*. Accessed on 16 December 2019. Retrived from <https://www.thinkwithgoogle.com/marketing-resources/micro-moments/i-want-to-buy-moments/>
- Muther C., 2016. *Instant gratification is making us perpetually impatient*. Accessed on 16 December 2019. Retrived from <https://www.bostonglobe.com/lifestyle/style/2013/02/01/the-growing-culture-impatience-where-instant-gratification-makes-crave-more-instant-gratification/q8tWDNGeJB2mm45fQxtTQP/story.html>
- Nakamura, J., Csikzentmihalyi M., 2002. *The concept of flow*.
- Neuman W.L., 2003. *Social Research Methods: Qualitative and Quantitative Approaches*.
- Noort G., Voorveld H.A.M., Reijmersdal E.A., 2012. *Interactivity in brand web sites: Cognitive, affective, and behavioral responses explained by consumers' online flow experience*. Journal of Interactive Marketing, p. 223-234
- Olsson M., Mozelius P., Collin J., 2015. *Visualisation and Gamification of e-Learning and Programming Education*. Electronic Journal of e-Learning, 441-454.
- Pansari A., Kumar V., 2017. *Customer Engagement: The Consturct, Antcedents, and Consequences*. Journal of the Academy of Makreting Science, 22-30.
- Powton M., 2017. *Customer Service Vs Customer Experience Vs Customer Engagement*. Accessed on 15 December 2019. Retrived from <http://customerthink.com/customer-service-vs-customer-experience-vs-customer-engagement/>

- Qualtrics, 2019. *What is Digital Customer Experience Management & How Do I Improve It*. Accessed on 16 December 2019. Retrieved from <https://www.qualtrics.com/experience-management/customer/what-is-digital-cx/>
- Ryan R.M., Deci E.L., 2000. *Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being*. *American Psychologist*, 68-78.
- Saunders M. N.K., Thornhill A., Lewis P., 2009. *RESEARCH METHODS FOR BUSINESS STUDENTS*.
- Savignac E., 2016. *The Gamification of Work: The Use of Games in the Workplace*. Wiley-ISTE
- Schell J., 2008. *The Art of Game Design: A Book of Lenses*. CRC Press.
- Schouten J. W., McAlexander J. H., Koenig H. F., 2007. *Transcendent customer experience and brand community*. *Journal of the Academy of Marketing Science*, 357–368
- Silverman D., 2010. *Doing Qualitative Research: a practical handbook*.
- Suthar S. 2019. *Everything You Need to Know About Customer Engagement to Keep Your Customers Hooked*. Accessed on 12 December 2019. Retrieved from <https://acquire.io/blog/everything-you-need-to-know-about-customer-engagement/>
- Verlegh P. W., Ryu G., Tuk M. A., Feick L., 2013. *Receiver responses to rewarded referrals: the motive inferences framework*. *Journal of the Academy of Marketing Science*, 669–682.
- Werbach K., Hunter D. 2012. *For the Win*. Wharton Digital Press.
- Wijman T., 2019. *The Global Games Market Will Generate \$152.1 Billion in 2019 as the U.S.* Accessed on December 10. Retrieved from <https://newzoo.com/insights/articles/the-global-games-market-will-generate-152-1-billion-in-2019-as-the-u-s-overtakes-china-as-the-biggest-market/>
- Wikipedia, 2019. *Wikipedia: Purpose*. Accessed on 20 November 2019. Retrieved from <https://en.wikipedia.org/wiki/Wikipedia:Purpose>
- Yee N., 2014. *The Proteus Paradox: How Online Games and Virtual Worlds Change Us—And How They Don't*. Yale University Press.
- Zhang M., Guo L., Hu M., Liu W., 2017. *Influence of customer engagement with company social networks on stickiness: Mediating effect of customer value creation*
- Zheng J., Zhang, Q. 2016. *PRIMING EFFECT OF COMPUTER GAME VIOLENCE ON CHILDREN'S AGGRESSION LEVELS*
- Zichermann G., 2011. *The purpose of gamification*. Accessed on December 10 2019. Retrieved from <http://radar.oreilly.com/2011/04/gamification-purpose-marketing.html>

Appendices

Appendix 1. List of semi-structured interview questions

- 1) What are the differential features of the digital customer experience?
- 2) What is your experience with gamification?
- 3) What effect gamification has on achieving business objectives?
- 4) What effect positive effect gamification has on CX?
- 5) What negative effect gamification has on CX?
- 6) How gamification is going to develop in the future?