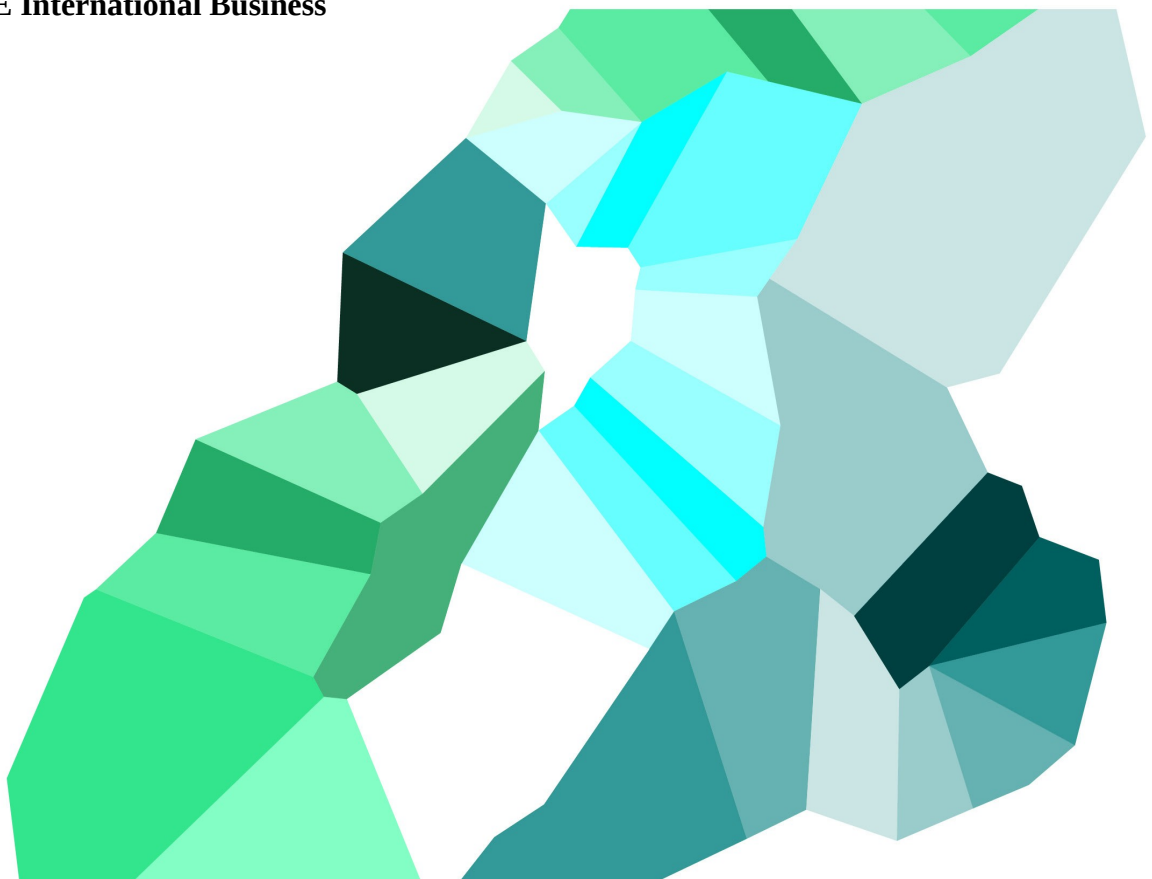UNIVERSITY OF
NORDLAND

MASTER THESIS

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CONSUMER EXPERIENCES IN VIRTUAL REALITY:

DIMENSIONS AND APPROPRIATION OPERATIONS OF IMMERSION

BE334E International Business

ACKNOWLEDGEMENTS

ABSTRACT

Experience economy has become a new economic era (Pine and Gilmore, 1999), where consumption is not the ultimate stage of economic cycle but the process of creating experiences nowadays (Uriely, 2005). Since experiences are created inside individuals (Mossberg, 2007), it is important to understand how and why consumers perceive certain events as memorable experiences (Caru and Cova, 2003). The technological development enables consumers to gain virtual experiences (Jiang and Benbasat, 2004) by getting immersed into the virtual world (Caru and Cova, 2006). Hence, the purpose of this study is to figure out how consumers experience immersion into virtual reality based on computer games context.

The study is conducted on the basis of twelve interviews with gamers from different parts of the world. The informants are suggested to answer questions from a partly-structured interview guide. Their answers are then being analysed, and presented in the tables as a foundation for the future discussion session. The discussion chapter presents the main results of the study, including three contributions: enlargement of the concept of immersion, providing empirical support for adding the fourth dimension of immersion, and giving empirical evidence of the possibility to omit the first two appropriation operations of immersion within the gaming context.

The results of the study could be useful for the future research and for management purposes. Numerous ideas on what could be used as an inspiration by other researchers are presented, including studying other aspects of immersion or investigating virtual reality in the other contexts. From the managerial perspective, one could consider the empirical findings to be useful for the development of both gaming industry and virtual tourism.

Key words: consumer experience, virtual reality, immersion, dimensions of immersion, appropriation operations of immersion.

SAMMENDRAG

Opplevelsesøkonomi har skapt en ny økonomisk æra (Pine and Gilmore, 1999). Forbruk er ikke lenger et ultimate stadium i den økonomiske syklusen, men prosessen med å skape opplevelser (Uriely, 2005). Det er viktig å forstå hvordan og hvorfor forbrukere oppfatter visse hendelser som minneverdige opplevelser (Caru and Cova, 2003). Den teknologiske utviklingen gjør det mulig for forbrukerne å få virtuelle opplevelser (Jiang and Benbasat, 2004) ved å bli tatt med inn i den virtuelle verden (Caru and Cova, 2006). Hensikten med denne studien er å finne ut hvordan forbrukere opplever det å bli oppslukt i en virtuell virkelighet basert på dataspill.

Studien er basert på tolv intervju med spillere fra ulike deler av verden. Informantene har svart på spørsmål fra en delvis strukturert intervjuguide. Svarene ble analysert og presentert i tabeller som et fundament for diskusjonen. Diskusjonskapittelet presenterer de viktigste resultatene av studien, inkludert tre bidrag: utvidelse av begrepet oppslukning/nedsenking, gir empirisk støtte for å legge til en fjerde dimensjon av innlevelse, og gir empirisk støtte for muligheten av å utelate de to første operasjoner som letter nedsenking innen spillsammenheng.

Resultatene av studien kan være nyttig for fremtidig forskning og for styringsformål. Mange ideer som kan være inspirasjon for forskere presenteres, herunder det å studere andre aspekter ved oppslukning/nedsenking eller å undersøke virtuell virkelighet i andre sammenhenger. Fra et ledelsesmessig perspektiv kan de empiriske funnene være nyttig for utviklingen av både spillindustrien og virtuell turisme.

Stikkord: forbrukeropplevelsen, virtuell virkelighet, oppsluking/nedsenking, dimensjoner av oppsluking/nedsenking.

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CHAPTER 1

INTRODUCTION

1.1. Historical background

A contemporary consumer is provided with a rich assortment of products and services. The range of choice has become extremely wide. Nevertheless, one may not be particularly satisfied with the offered options (Prahald and Ramaswamy, 2004). Intensive work and an overall stress in everyday life might cause people consider the environment as a hard reality (Caru and Cova, 2007). Some consumers tend to capture a feeling of freedom; others need to leave the feeling of the constant stress behind (Lindberg and Østergaard, 2013).

Abrahams (1986) claims that nowadays customers are obsessed with novelty and are afraid of boredom. As a result, they desire to get everything from the life, i.e. to live the life as fully as possible (Caru and Cova, 2003). In other words, many consumers have a strong desire of experiences (Pine and Gilmore, 1998), a craving to escape the reality (Holbrook and Hirschman, 1982).

Imagination has always been the most powerful source of escape (Goulding, 2000). The power of imagination might allow a person to get carried away where, when and with whom one wants (Sherman and Craig, 2002). However, Roy et al. (2003) believe that some people might experience some difficulties in using their imagination to the full extent. The re-created environment might be more real and vivid than the one described by most subjects with the help of their own memory and imagination (Vincelli and Molinari, 1997). Virtual reality (VR) is considered to be of a great advantage in this case by exposing various situations to individuals (Roy et al., 2003).

Virtual reality is considered to be among the most grandiose breakthroughs of the end of the 20th century (Hobson and Williams, 1995). One might observe its presence within various industries such as defence, medicine, aerospace, etc. (Cheong, 1995). VR is becoming more significant in tourism, both as a promotion tool and as a destination itself, for example, virtual leisure or theme parks (Dewailly, 1999). Potentially, virtual reality can simulate infinite number of consumer experiences in tourism (Horan, 1996).

According to Enloe (2000) tourism is as much an ideology as a physical movement. A key to the future development of the tourism industry is the knowledge about what and how affects the consumer experiences (Mossberg, 2007). It is vital to understand how tourists experience 'a holiday', and what exactly they want to get from it (Ryan, 2011). According to Prebensen and Foss (2011) the consumption experience of a tourist is directed towards the pursuit of happiness and avoidance of pain. Happiness and enjoyment are associated with the concepts of peak experience and flow (Schouten et al., 2007), which are defined below.

A peak experience is defined as something unexpected with the element of surprise (Mossberg, 2007). Peak experiences usually leave deep tracks in the human psyche (Schouten et al., 2007). Csikszentmihalyi (1990) defines flow as an intrinsically autotelic experience. Privette (1983) argues that flow is most often associated with having fun and, therefore, might be experienced in games and play. A central part of flow and peak experience is the process of immersion (Hansen and Mossberg, 2013). Caru and Cova (2007) define immersion as a complete elimination of the distance occurring between the situation and the consumer, which might include three appropriation operations: nesting, investigating, and stamping (Caru and Cova, 2006).

Paris (2008) states that one might experience immersion in nearly all spheres of life. To immerse, literally, means to be plunged into something that covers or surrounds (Paris, 2008). Game producers, for example, create a dream world that consumers are able to dive into (Mossberg, 2007). A lot of people like trying on different identities (Caru and Cova, 2006). Those worlds, created by game producers, give an environment, where consumers could play different roles (Mossberg, 2007).

It is necessary to obtain a whole new understanding of what people need to develop a competitive tourist product (Mossberg, 2007). Virtual aspect in tourism might be expected to improve over some time, and consequently satisfy more tourist demands (Dewailly, 1999). Hence, it might be a good idea to look at possible implications of virtual reality tools at a particular tourism attraction, e.g. museum or theme park, from the other point of view, i.e. gaming context perspective.

The complexity of the study is justified by the connection of the research question with at least four theoretical fields. Tourism articles (Mossberg:2007, Ryan:2011, Towner:1995, Uriely:2005, etc.) provide a set of ideas on the current development of the industry and possible

implications for the future. The previous research on the consumer experience (Prahald and Ramaswamy:2004, Privette:1983, Schouten et al.:2007, Vargo and Lusch:2004, etc.) helps to understand what contemporary customers search for. Psychological literature (Riva et al.:2007, Vincelli and Molinari:1997, Vincelli:1999) gives an overview of how people cope with the difficulties in perception of reality, how they use their imagination to escape the habitual environment and how deeply they might get immersed into an activity. Finally, such authors like Payne (2005), Rollings and Adams (2006), and Stahl (2005) were investigating the last decade trends of the gaming industry.

1.2. The objective of the research and the problem statement

The initial idea of the research is to find answers to questions about the essence of the consumer experiences in virtual reality. However, the point is to use an indirect approach. I am going to study the virtual reality in computer gamest rather than directly in tourism. This approach will let the researcher stay open-minded, and find out creative implications for the future development of virtual tourism. Hence, the **research question** of the study is:

How do consumers experience immersion in a virtual context?   *(RQ)*

The theoretical part of the project starts with investigating existing research on the problems of consumers' immersion into the virtual reality. However, the focus of the empirical part of the study is made on the aspects of immersion into computer games. Hence, the objective of the research is to answer the RQ and the following three questions:

(1) What is the meaning of immersion in the gaming context?

(2) What are the dimensions of immersion, and which have the greatest impact on the process of immersion into computer games?

(3) How important are appropriation operations for getting immersed in the game environment?

1.3. RPG and strategy games as the focus of the study

Investigating immersion in terms of gaming could be a very complicated task due to the variety of game genres available nowadays. In order to narrow down the research problem I

studied the categories that most games might fall within. Stahl (2005) gave an attempt to present a broad picture of what types of games there are. He segregated thirteen genres, i.e. shooters, first-person shooters, adventure, platform, RPGs (or role-playing games), puzzle, simulations, strategy, sports, fighting, dance/rhythm, survival horror, and hybrids (Stahl, 2005).

The simulated environment might be very similar to the real world. However, I was interested in the games that provide a totally fantastic environment to the consumer. According to Stahl (2005) such genres as adventure, PRGs, strategy, survival horror and hybrids include the elements of fantasy. In order to narrow down to two genres, I checked which of them were the bestsellers. According to the Entertainment Software Association "Strategy" and "RPG" were the most popular genres of computer games in 2013 (38% and 28% games sold, respectively). Hence, the decision was made to focus on studying PRG and strategy games.

Strategy games demand thorough planning and creative thinking to achieve a victory (Rollings and Adams, 2003). The emphasis is made on tactical, strategic and logical challenges. Even in fantastic or imaginary conflicts, it is important to reproduce tactical situations using flanking and other techniques throughout history (Rollings and Adams, 2006). Among the best strategy games Robinson (2013) names (based on whether titles occur in games mentioned by the informants): Starcraft, Age of Empires, and Star Wars (Figures 1.1, 1.2., and 1.3 respectively).

Figure 1.1.   Starcraft
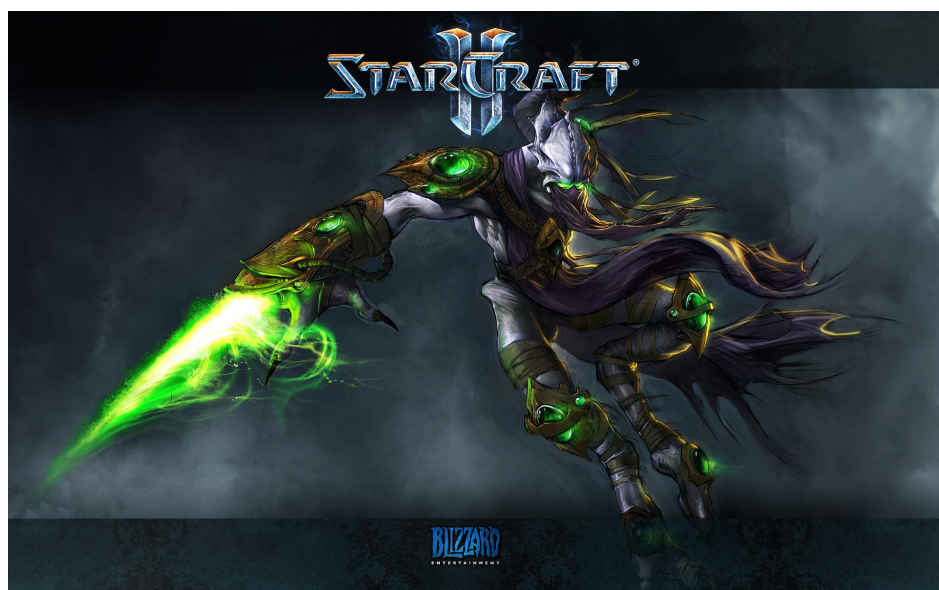
Source: http://sc2.gameguyz.com/sites/default/files/pictures/1358750010_wall2_16-9.jpg

Figure 1.2.　　Age of Empires

Source:

Figure 1.3.　　Star Wars

Source:

A role-playing game is a game where each player has a character with a specific role in a fictional setting (Harrigan, 2007). Every character has to act according to his role in the game following the narrative via either real acting or by making structured decisions and/or development of the character. Some of the examples of RPG games named by the interviewees are Diablo, Neverwinter Nights, and EVE online (Figures 1.4, 1.5, and 1.6 respectively).

Figure 1.4.   Diablo

Source: http://media.officialplaystationmagazine.co.uk/files/2012/05/Diablo-III-epic-wallpaper.jpeg

Figure 1.5.   Neverwinter Nights

Source: http://hdwallpappers.com/images/wallpapers/nwn-wallpaper-aribeth-.jpg

Figure 1.6.   EVE online

Source:

http://www.kitguru.net/wp-content/uploads/2014/04/EVE-The-Second-Decade-Collector-s-Edition-Now-Available-for-Purchase-394282-2.jpg

1.4. Outline of the paper

The remainder of the the master thesis is structured along five chapters. Chapter two gives an overview of the previous research conducted in the same sphere of knowledge. It is divided into four subchapters, which provide a reader with the idea of using virtual reality as a relaxation tool, with creation and co-creation of consumer experiences in the VR, and with the concept of immersion and its characteristics.

Chapter three argues for the research design used for the master project describing empirical phases of the study and methods used. The chapter is divided into four subchapters. The first one justifies the choice of research strategy of the study. The second one represents empirical phases of the research including the justification of the sample and sampling method. The third part describes data analysis techniques implemented in the study. The last one discusses the issues of the research quality.

Chapter four offers a direct report on the empirical part of the project. I describe my findings, and analyses data for the further discussion and drawing conclusions parts. Chapter five crowns the thesis by discussing different theoretical viewpoints and criticizing some of them, and by suggesting several new ideas as my contribution to the previous research. This chapter consists of three subchapters, each representing a separate contribution. Finally, Conclusion gives a short report on the results of the study, and suggests a number of implications for the future research and for business.

CHAPTER 2
THEORETICAL PERSPECTIVE

Experience economy has become a new economic era, where each business is considered to be a stage, and firms are to provide memorable events for their customers in order to get a reward (Pine and Gilmore, 1999). Consumption is the process of creating experiences rather than the final stage of the economic cycle nowadays (Uriely, 2005). Experiences are created inside individuals (Mossberg, 2007), hence it is important to understand how and why consumers perceive certain events as memorable experiences (Caru and Cova, 2003). The technological development enables consumers to gain virtual experiences (Jiang and Benbasat, 2004). This results into people trying to get away from the reality by getting immersed into the virtual world (Caru and Cova, 2006). The following paragraphs acquaint the reader with the main concepts of the experience economy, and give an idea of why immersion has become one of the central concepts in terms of consumer experiences.

2.1. Creating and co-creating consumer experiences in the virtual reality

According to Uriely (2005) postmodernity is a broad phenomenon in culture. The concept relates to a particular set of developments of a generalized character, which may establish a new social consciousness and cultural paradigm. It also refers to a tendency towards deconstruction of grand theories of modernism as a part of the postmodernist scepticism (Uriely, 2005). Postmodern theories emphasize richness of life and its diversity (Ryan, 2002). Postmodernity as a broader cultural development is associated with the progress in the tourist experience studies. This paradigm justifies de-deferentiation of experiences from everyday life as it was considered in terms of modernity due to its pluralized nature (Uriely, 2005). Hence, according to Uriely (2005) tourist experiences might be accessible in multiple contexts of a daily life. In other words, one might find tourism in everything, and everything might be considered tourism as the same time (Munt, 1994). Tourist attractions become arenas for travellers' unique experiences (Cohen, 1974). Tourism experience, therefore, proves to be a relative truth rather than the absolute one (Uriely, 2005).

Uriely (2005) claims that postmodern consumers do not merely use things. Nowadays consumption becomes a process of experiences production rather than the final stage of the

economic cycle (Uriely, 2005). The worldview has changed from being focused on operand resources (those on which an act or operation is performed) to operant resources (those that provide effects) (Vargo and Lusch, 2004). Experiences are created inside individuals (Mossberg, 2007), and derive from the processes of exploration, staging and scripting (Pine and Gilmore, 1998). Thus, the customer becomes an operant resource in the entire service and value chain of production of the experience (Vargo and Lusch, 2004).

What is actually experience? According to Mossberg (2007) it is a permanent flow of feelings and thoughts occurring during conscious moments. It is not an amorphous concept; it is as real as any good, commodity or service (Pine and Gilmore, 1998). This concept is especially important nowadays as the focus has shifted from tangible towards intangible things, for example, information, skills, knowledge, and towards connectivity and interactivity (Vargo and Lusch, 2004).

The economic value progression might help understand what an experience is. Firms start with extracting commodities, and continue with producing goods. This is the simplest form of providing the customer with what one wants. However, in order to stay competitive in the market (in case when a firm is not the price leader), company could also deliver services to the customers. Finally, when a company's goal is not simply to survive, but to thrive and make profit, it is important to gain the customer's loyalty. In that case staging experiences is a vital part of keeping consumers satisfied (Pine and Gilmore, 1998).

An old TV show *Taxi* is a great example of such approach. The transportation service was not the main issue for the taxi driver, but instead the consumer experience. He was singing F.Sinatra songs, serving sandwiches, and conducting tours around the city. This made him the best driver in the city, because the ride in his taxi gave people a memorable experience. Hence, consumers were willing to pay more for getting enjoyment, not simply for getting to the final destination (Pine and Gilmore, 1998). As one might notice, the value creation becomes the core process and central target of economic exchange (Vargo et al., 2008).

Schouten et al. (2007) discusses the power of experience when creating value for consumers. Two distinct but related categories of extraordinary experience are depicted: peak experience and flow (Privette, 1983). Csikszentmihalyi (1990) describes flow as total absorption of a participant in an activity. Flow is both experience and performance united in a positive and

often playful package. Flow produces a feeling of separation from the routine (Schouten et al., 2007). Usually flow is experienced in play and games (Privette, 1983).

Peak experience is different from flow. It is a less deliberate process, being closer to an epiphany. It often seems to spring from outside the person and to transport that individual to something unexpected and surprising (Schouten et al., 2007). Peak experience should get the consumers involved both spiritually and intellectually, and emotionally and physically (Mossberg, 2007). Moreover, consumers may recall peak experience many years after it happened (Hansen and Mossberg, 2013).

However, the two above mentioned concepts have something in common. Peak experience same as flow includes joy, absorption, spontaneity, personal involvement and identity (Privette, 1983). Flow and peak experience are two related phenomena, which overlap quite often in the same events and activities. Mystical or transcendent character and extreme enjoyment are shared in common by these two concepts (Schouten et al., 2007). They bring the feeling of separation from everyday life (Schouten et al., 2007), strong emotions (Caru and Cova, 2003), and connection with the larger phenomenon (Schouten et al., 2007).

A joyous event is exclusively a peak experience when the superior behaviour is not specifically involved. The examples of this could be listening to music or childbirth. Privette (1983) also talks about such concept as peak performance. A performance is considered to be a peak one when enjoyment or joy does not accompany the superior performance (e.g., crisis or placebo). Only the lower levels of performance and joy account for flow, i.e. game playing (Privette, 1983).

One event might have the qualities of all three concepts. One might think of the UEFA Champions League Final as a very good example of such event. Players experience flow during the whole game, and get the peak experiences during the greatest moments of the match. Finally, spectators might observe the peak performance of the players during specific moments of the final game.

One should remember that an experience can never be considered as a really complete one unless it has been expressed (Caru and Cova, 2007). In other words, it should be communicated with the help of language or other forms. For example, when consumer is getting immersed in a game, he/she might reach peak experience. However, the experience will still be

incomplete until it is shared with someone else. Hence, gaming forums become an important tool of expressing emotions in order to complete the experience by players (Payne, 2005).

It is vital to understand how to provide an experience to a customer, since experiences define what is valuable to a consumer. The process of consumer's value creation might be defined as a sequence of activities conducted by the consumer in order to achieve a specific purpose (Payne et al., 2008). Hence, experiences are at the heart of amusement and recreation business (Pine and Gilmore, 1998). However, an important aspect here is that every personal experience is unique (Prahald and Ramaswamy, 2004). Thus, it is crucial for firms to realize that they could not create experiences themselves, but the experiential context (Caru and Cova, 2007).

Consumers today are co-creating value together with a firm (Prahald and Ramaswamy, 2004). They begin to act as active co-creators of experiences (Payne et al., 2008), thus they immerse themselves (Caru and Cova, 2007). It is by participating that customers are able to produce their self-identity via consumption (Caru and Cova, 2007). Customers become "thinkers", "feelers" and "doers" (Payne et al., 2008). Informed, connected, active and empowered consumers emerge all over the world (Prahald and Ramaswamy, 2004). They become engaged in practices, i.e. they turn into active players (Payne et al., 2008).

Co-creation of experiences becomes a basis for the value creation. Computer games, for example, would not be able to exist without effective co-creation with consumers (Prahald and Ramaswamy, 2004). Hence, the future belongs to such firms that are able to successfully co-create exceptional experiences together with their customers (Prahald and Ramaswamy, 2004).

2.2. Virtual reality as a powerful source of relaxation

One might argue that a constant pressure for the time, a feeling of constantly being on the go, frustration by all responsibilities and challenges one faces make individuals feel totally stressed (Lindberg et al., 2013). A desire to relax and/or entertain oneself may be considered as an expected reaction to all the stress in a daily routine (Tolman and Rose, 1985). However, people nowadays are so involved into social life, into actually doing something, that just relaxation might be simply tedious for them. Caru and Cova (2003) claim that many individuals

may have the constant fear of being bored. That is where a tourist turns into a peak consumer with the tendency towards realizing dreams and fantasies and looking for peak experiences (Hansen and Mossberg, 2013).

The development of scientific and technological progress has dramatically influenced the contemporary view on particular aspects of life. Lindberg and Østegaard(2013), for example, argue that soul, mystery and passion are more and more excluded by modernity nowadays. The lack of these components in everyday life makes people seek for some new experiences (Lindberg et al., 2013). They wish to achieve fun, enjoyment, amusement, sensory stimulation, to dive into the product-related fantasies and imagery (Holbrook and Hirschman, 1982). Payne et al. (2008) suggests that experience determines what is of a value to a consumer. Researchers claim that tourist experience gives psychological benefits based on two motivational issues: to get distracted from stressful environment and routine, and to seek for recreation and relaxation (Mannell, 1987).

One might think of modern human beings as those striving for filling up their free time with strong emotions (Caru and Cova, 2003), because they need to get away from anxiety and boredom (Cary, 2004). This results in the disappearance of the leisure time (Caru and Cova, 2003). Furthermore, the human organism has not been constructed to undergo intense experiences all the time. It needs time for relaxation and rest. Consequently, constant accumulation of stress and personality-shaking emotions might end up by getting a serious delusion of reality (Caru and Cova, 2003).

Johnson (1987) states that human organism has its protective mechanism against being overloaded, i.e. imagination. It is a powerful tool of coping with the daily stress (Johnson, 1987). It has become a very active instrument of getting rid of stress by diving into the other reality (Caru and Cova, 2006). People tend to abstract themselves to a dreamlike picture or scene which has surreal qualities, i.e. "dreamscape" (Schouten et al., 2007). The recreated world might be now and then more real and vivid than the one most people are able to describe through their own memory and imagination (Vincelli, 1999).

Riva et al. (2007) mentions the ability of imagery techniques and films to elicit emotions. Holbrook and Hirschman (1982) claim that games allow consumers dive into the dream world and provide them with 'virtual experiences'. The data showed that the interaction with "relaxing" and "anxious" environments could produce relaxation and anxiety (Riva et al., 2007). Games

becomes an interlude from routine by brining internal satisfaction and relaxation rather than any material gain (Holbrook and Hirschman, 1982).

Digital games are able to transfer human imagination to the places re-created on the screen (Calleja, 2011). One should note that the main feature of the virtual medium is the ability to bring on a feeling of presence for the users in the world generated by computers (Riva et al., 2007). However, the shift from 2D to 3D games design led to the adoption of the concept "presence". This shift increased the sense of immersion and made the term an all-inclusive concept (McMahan, 2003). The main points of immersion are described in the following subchapter.

2.3. Immersion and characteristics of the concept

2.3.1. Various perspectives on the definition of immersion

The development of the experience economy gave an impetus to the visibility of the concept "immersion". Eventually, immersion became one of the key components of a customer experience. However, there are different perspectives on the definition and characteristics of immersion (Hansen and Mossberg, 2013). It is not clear whether people use the term "immersion" consistently (Brown and Cairns, 2004). Many researchers use the terms "presence" and "involvement" synonymously with the word "immersion" (McMahan, 2003). Hence, Table 2.1 (below) presents a number of definitions of different authors, which indeed use the concept "immersion" in their works.

According to Murray (1997) the experience of being transferred to a virtual place is pleasurable itself, regardless of the content of the fantasy. As a metaphorical term immersion is being compared with a feeling of being submerged into water. People look for the same feeling from being psychologically immersed that we gain from plunging into a swimming pool or an ocean: the feeling of being surrounded by a totally different reality with all our attention focused on this new environment.

Pine and Gilmore (1998; 1999) refer to two dimensions of customer's involvement in the process – absorption and immersion. Absorption means that a person's attention is occupied by getting the experience to one's mind. Immersion, on the other hand, is defined as the process

when a customer becomes a part of the experience either physically or virtually (Pine and Gilmore, 1999). However, some other studies use these two concepts as synonyms. For example, Mainemelis (2001) defines the immersion as the sense of full absorption.

Table 2.1.   Definitions of the concept "immersion"

Author / Context	Definition
Murray (1997) Participatory medium	Immersion is a metaphorical concept describing a physical experience of being plunged into water (p.98-99).
Pine and Gilmore (1999) / General experience economy	Consumers become a part of the experience either physically or virtually (p.31).
Caru and Cova (2006) / Classical music concert	Customers are involved in a secure thematised enclave where they are able to let themselves go (p.5).
Jennett et al. (2008) / Computer games	A lack of awareness of space and time along with the feeling of being engaged in the task environment are involved in immersion (p.657).
Abuhamdeh and Csikszentmihalyi (2012) / Daily consumption	Immersion is associated with the attentional involvement which refers to the degree to which a participant devotes his/her attention to the activity (p.258).

Caru and Cova (2006; 2007) represent a different perspective on the concept of immersion in the context of the classical music performance. One may not find a distinct definition of immersion in their works. However, the description of the customers who are involved in a secure thematised enclave where they are able to let themselves go might be considered as the description of immersion. In other words, it is the process of gaining an experience in which consumer becomes an inevitable part of the event. Hence, it is not that important to give a certain definition for immersion, rather than to describe the qualities of the environment in which customers might get immersed.

It might be a hard task to clarify the meaning of immersion within gaming since researchers of virtual reality interchange the concepts involvement, immersion and engagement (Hansen and Mossberg, 2013). However, Jennett et al. (2008) describe the immersion as a lack of awareness of space and time along with the feeling of being engaged in the task environment. In the gaming environment, involvement becomes a dimension or a component of immersion (Hansen and Mossberg, 2013).

Finally, in the context of a daily consumption immersion is associated with the attentional involvement, which refers to the degree to which a participant devotes his/her attention to the

activity (Abuhamdeh and Csikszentmihalyi, 2012). This attentional involvement is a necessary tool to derive joy and satisfaction from an event to gain experience. When consumer pays all his/her attention to the activity, and the devotion level is high, the process then could be experienced to the full scale (Hansen and Mossberg, 2013).

Thus, the above mentioned definitions give a certain perspective on the subject of immersion. They describe the concept within the different contexts. However, there is something similar to all of the points of view, i.e. transient feeling of belonging to the environment (Hansen and Mossberg, 2013). It does not matter whether an event belongs to the virtual world (Jennett et al., 2008) or to the real one (Caru and Cova, 2006). The main point is that immersion is characterized by a deep involvement in the process which takes place here and now (Hansen and Mossberg, 2013).

2.3.2. Immersion in terms of its dimensions

Before describing the dimensions of immersion, one should understand that immersion is considered to be a dimension itself. Pine and Gilmore (1998) suggest that one may think of the experience in terms of two dimensions. They are presented in Figure 2.1 below.

Figure 2.1.   Dimensions of experience (inspired by Pine and Gilmore, 1998)
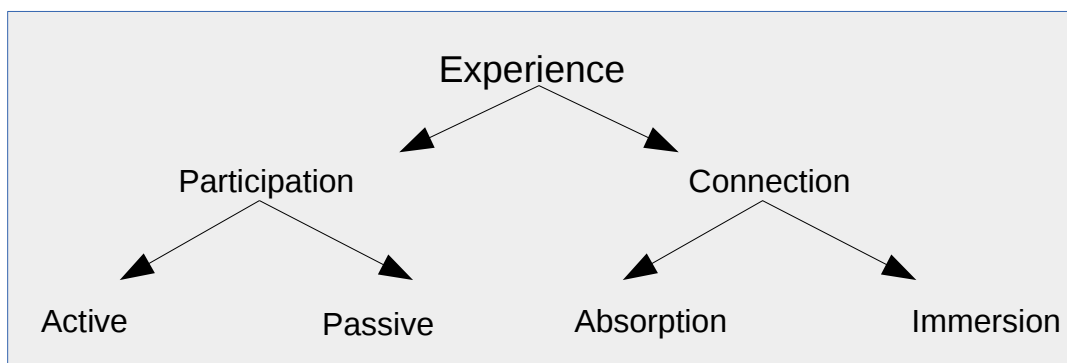
The first one refers to consumer participation. Passive participation lies at one side of the scheme. In this case consumers do not affect the performance; they act as listeners or observers. The example of such customers is the symphony-goers or visitors of theatres and art galleries (Pine and Gilmore, 1998). Active participation lies at the other side of the scheme. Here consumers play the key role in creating the event or performance, i.e. co-creating the experience (Pine and Gilmore, 1998). Skiers (Pine and Gilmore, 1998), bungee jumpers (Danaher and

Arweiler, 1996), tourists enjoying dog sledging (Lindberg et al., 2013) are the examples of the active participants.

The second dimension refers to the connection of the consumer with the event or performance. There are two extremes in this dimension: absorption and immersion, which are defined in the previous section (Pine and Gilmore, 1998). For example, I was present at the Nickelback and Skillet concert in Oslo (November, 2013). People sitting on the left-hand side and on the right-hand side of Telenor Arena were absorbing the event. But those who were standing in the fan zone (including me) were deeply immersed into it. Every fan was jumping and singing along to the songs with their hands up all the time.

Depending on the type of connection and participation four broad categories of experiences might be segregated. Most people consider watching TV, visiting a theatre or going to a concert as an entertainment. There customer's participation is more passive rather than active, and they are mostly absorbed, but not immersed in the performance (Pine and Gilmore, 1998).

Educational events, such as attending a course or taking golf or ski lessons, usually involve people into a more active participation. However, customers keep the distance from the activity, they simply observe it and feel more absorbed rather than immersed (Pine and Gilmore, 1998).

Escapist experiences unite the features peculiar to entertainment and educational occasions. On one hand, they might teach the participants just as well as the educational events. On the other hand, they give the same level of amusement as entertainment. Moreover, they provide greater immersion for the customers. Examples of the escapist experiences could be performing on a stage, climbing down the Grand Canyon, or playing a computer game (Pine and Gilmore, 1998).

Finally, if the customer reduces the active participation, the escapist experience will turn into the esthetic one. Customers here are immersed in the environment, but they have little effect on it themselves. Participants are just like tourists who merely admire the beauty of the Grand Canyon, or like visitors to a museum or an art gallery (Pine and Gilmore, 1998).

With respect to categorization of Pine and Gilmore (1998), playing computer games might be classified as an escapist experience, where immersion takes up a central position along with active participation. Immersion into a game environment and a gameplay experience according to Ermi and Mayra (2007) are multidimensional phenomena. They describe three key dimensions of immersion into reality of games: imaginative, sensory, and challenge-based immersion (Figure 2.2).

Figure 2.2.   Dimensions of immersion (inspired by Ermi and Mayra, 2007)

Challenge-based

Immersion

Sensory   Imaginative
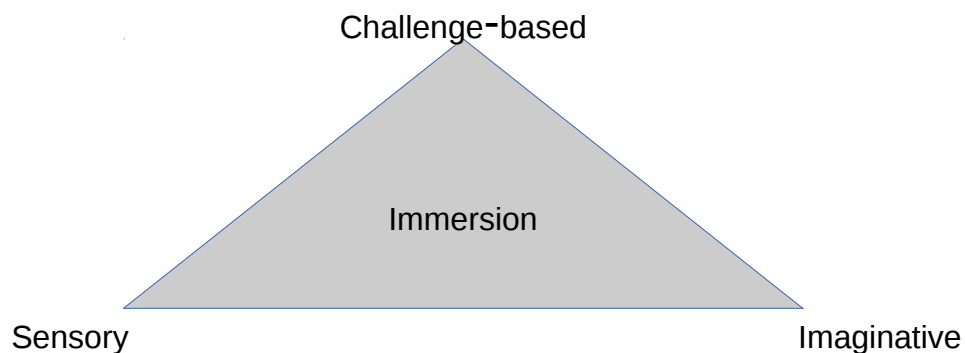
Imaginative immersion relates to the absorption of the gamer with the world and stories. One might identify oneself with his character in the game. It is especially felt in the RPG games where story elements, characters, and worlds in the whole become the central issues. This is the dimension which allows a player to use his/her imagination in order to get a deeper involvement (Ermi and Mayra, 2007). Imaginative immersion might be compared to spatial and narrative involvement, described by Calleja (2011). The latter refers to the engagement with the elements of the story, both programmed beforehand in a game, and those evolving from the consumer's interaction with the computer game. The spatial involvement refers to the engagement of the player with the qualities of the virtual reality space (Calleja, 2011).

Sensory immersion means an audiovisual performance of the game (Ermi and Mayra, 2007). This is the most recognizable dimension even by those who are not gamers in the first place. The sensory information from the real world might be extremely overpowered by big screens and powerful sound systems in order to make a gamer totally focused on the virtual environment (Ermi and Mayra, 2007). Slater and Wilbur (1997) discuss a similar dimension in terms of shared environments, however, they call it "vividness". It refers to sensory rich environments that have a strong impact on the gamers' immersion. Slater and Wilbur (1997) claim that vividness is a key dimension in shared interactive environments. McMahan (2003), on

the other hand, claims that total audio- and video-realism is not needed for producing a sense of immersion in a consumer. However, it has not stopped producers of virtual realities from pursuing audio- and video-realism (McMahan, 2003).

Challenge-based immersion plays an important role in computer games because they require consumer's active participation: players constantly face physical and mental challenges to keep them interested in a game (Ermi and Mayra, 2007). This dimension has two perspectives: cognitive challenge and the challenge of pace/speed. The most powerful feeling of immersion is reached when a player manages to find a balance of his abilities and challenges in a game environment (Ermi and Mayra, 2007). This dimension might be compared to kinesthetic involvement described by Calleja (2011). The latter refers to a game control and all possible modes of the player's avatar. Conscious attention is highly valuable with respect to this dimension due to the complexity of situations within the game (Calleja, 2011).

Apart from the three described dimensions of immersion Calleja (2011) suggests three additional modes of involvement: shared, affective and ludic. Interaction with the other characters in the virtual environment, both computer- and human-controlled, is the central point of shared involvement. This interaction might be considered with respect to cooperation, cohabitation, or competition. Affective involvement deals with different forms of sensitive engagement. Emotions gained from the game might vary from the calm sensation from passing a pleasing scene to intensive adrenaline rush in horror games or first-person-shooters. An opportunity to make your own choice in a game relates to ludic involvement. Those choices might be directed towards either decisions made by one player, or by the community of gamers (Calleja, 2011). Usually the described dimensions overlap and mix in many ways (Ermi and Mayra, 2007). It is not, however, necessary that all of them should be equally relevant to some particular game (Calleja, 2011).

2.3.3. The appropriation operations of immersion

Caru and Cova (2007) suggest two ways of being immersed. First one is by immediately and completely diving into the context of experience. Second one is by doing it progressively and partially. Hence, the model of consumer immersion could be presented in the following way for the better understanding of the process (Figure 2.3).

Figure 2.3.   The model of consumer immersion (inspired by Caru and Cova, 2007)
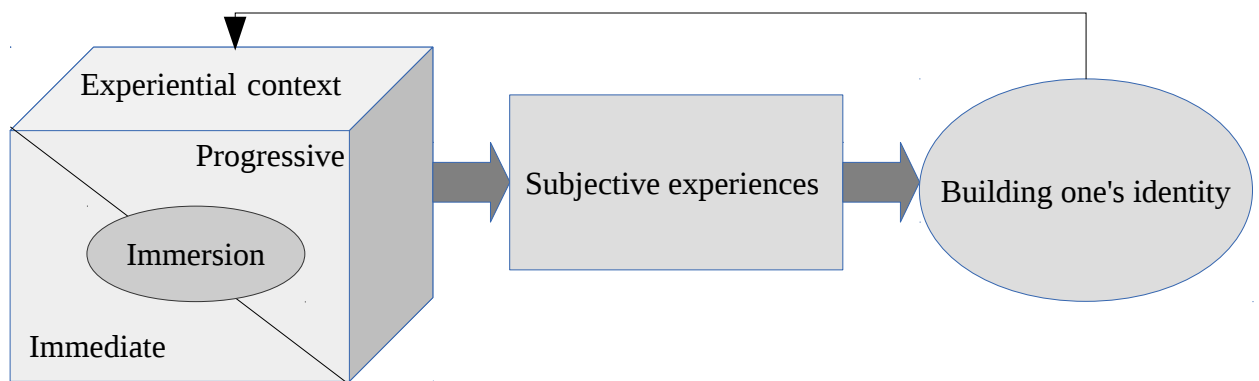
Caru and Cova (2007) have an opposite opinion to the experience economy thought suggested by Pine and Gilmore (1999). Caru and Cova (2007) claim that that firms do not produce experiences rather than the context for them. Since every experience is a subjective reflexion of the event, each customer has to live it through with the help of the context created by a firm. Hence, subjective experiences help building one's own identity (Caru and Cova, 2007). For example, museum visitors use learning as a tool for building their own identity based on their curiosity (Falk, 2009). Depending on the type of identity built people immerse in different ways. Hansen and Mossberg (2013) claim that expert consumers possess required skills and knowledge about the topic, hence, they are able to immediately immerse in the context. Novice consumers, on the other hand, feel more detached from the theme, and the process of their immersion is more gradual and progressive (Hansen and Mossberg, 2013).

Depending on the way of being immersed, the process might involve three appropriation operations (Caru and Cova, 2006). They help to reduce or eliminate the distance between the consumer and the experience. They also help to transform the experience and make it personal to a customer (Caru and Cova, 2006). These operations are presented in the Figure 2.4.

Figure 2.4.   Appropriation operations of immersion (inspired by Caru and Cova, 2006)
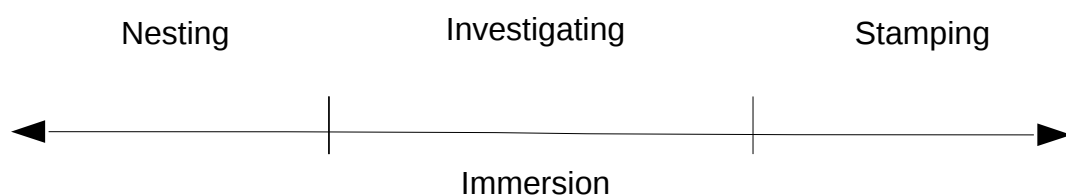
Consumer's perception of the range of mental and physical sensations and looking for the points of anchorage are characterized the by nesting operations. Customer will experience situational control based on the relationship between those anchorage points and sensations. In other words, the customer will get a feeling of being home. The next operation, investigating, is varying from simply describing the event to discovering something brand new. Description is limited to a mere observation of the situation, while discovery is associated with a negative or positive assessment of the consumer's experience. There are not always moments of elimination of the distance, so the investigating stage helps customers to understand the event in a better way. Finally, the stamping operations are associated with the imaginative activity. They are characterized by the impressions related to the event the consumer is experiencing and the meaning one attributes to that event (Caru and Cova, 2006).

Based on the model of consumer immersion one might claim that skills play a vital role in the process of building one's identity. However, one should not forget about the environment or context of the event. Skills on their own do not give the comprehensive picture of how consumer might behave in this or that situation. Thus, the characteristics of the environment, challenges in particular, are of a great importance in the process of understanding customers' responses (Caru and Cova, 2007). Figure 2.5 shows how the combination of skills and challenges end up in a certain type of consumer behaviour with respect to gaming context.

Figure 2.5.   Csikzentmihalyi's experience typology (Caru and Cova, 2003)

Typical Flow diagram
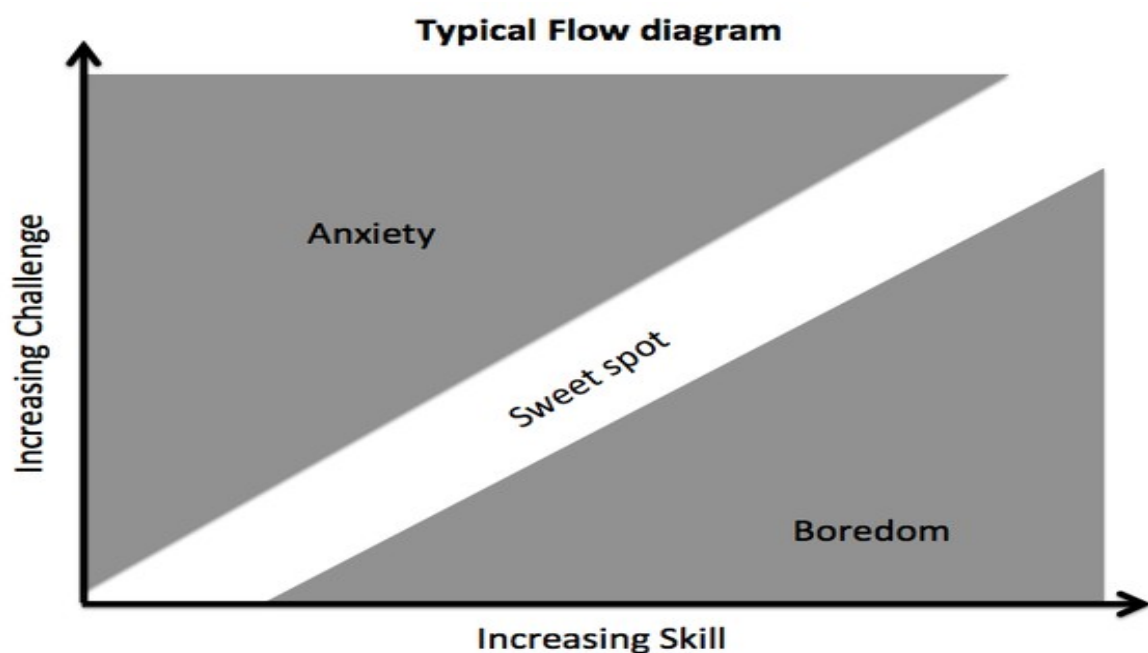
Source: http://www.gamasutra.com/view/feature/168230/gamification_dynamics_flow_and_art.php (April 10, 2012)

Customers are apathetic, worried and anxious when they have low skills (Caru and Cova, 2003). Lindberg et al. (2013) claims that conflicts and disharmony are inseparable parts of the experience. Hence, it is almost impossible to avoid trial or error learning (Lindberg et al., 2013). When the customer is progressing, he/she might get either bored (when the level of challenges is low), or aroused (high level of challenges). However, the feeling of relaxation or control comes only when one gets very skilful. Finally, the desired feeling of flow is attained only when the high levels of both skills and challenges are combined, i.e. skills and challenges are at their maximum. One should, however, remember that some consumers might consider one event as a peak experience, while it might be tedious and irritating for others (Caru and Cova, 2003).

2.4. Summary

The theoretical chapter starts with the description of the consumer experiences as a general phenomenon. The investigated research show that co-creation of experiences together with the customers becomes a central part of the experience economy. It is by providing an experiential context for the further active participation of the customers that firms become successful. Then it narrows down from the general customer experiences to the ones within the virtual reality. The idea of virtual reality as a means of relaxation is studied further on. Eventually, the concept of immersion into virtual reality takes up the central position in the study.

The third subchapter of the theory is completely devoted to the process of immersion. In the first part of it the reader gets acquainted with various perspectives on the definition of immersion. Even though one might think of different situations of being immersed, there are still some common characteristics of the concept independent of the context. The second part of the subchapter presents the dimensions of immersion, i.e. imaginative, sensory, and challenge-based immersion. They might overlap in many ways, and it is not necessary that each dimension is of the same importance to consumers in every situation. Finally, before getting immersed consumers might need to go through three appropriation operations to facilitate the process of immersion: nesting, investigating, and stamping. With respect to these operations the combination of consumers' skills and challenges of the virtual reality plays an important role.

CHAPTER 3
METHODOLOGY

In order to organize the research activity in a way to achieve the aims of the study it is necessary to primarily decide on the research design. In other words, it is about choosing what and how shall be, and shall not be observed. The current project is an example of a hermeneutics study, which focuses on getting a deeper understanding of how consumers gain experiences in the virtual reality. The choice of the research design justifies the methods of sampling and collecting data. It gives an explanation of how this data is analysed. All these issues along with the question about the quality of research are discussed in this chapter.

3.1. Research strategy

Researchers discuss various scientific methods and designs of conducting a study. There is no one single right way of doing science. Some researchers have an opportunity to manipulate their experiences in the laboratories; others are not able to do this (Hayes, 2000). The aim of choosing a certain research design is to be able to produce valid answers to suggested research questions depending on the context of the study (Churchill and Iacobucci, 2005).

The purpose of this study is to determine what influences individuals' immersion in the virtual reality of computer games. Human beings have ideas, thoughts and cultural differences, which have a great impact on their behaviour. If one truly wants to understand why gaming experience is valuable to people, one must dive into those people reality, and try to imagine oneself in "somebody's shoes". Hence, the positivist approach, which insists upon the idea that only that is considered to be knowledge which can be observed and measured in a direct way (Hayes, 2000), cannot be applied in this case.

Anti-positivist design also known as "interpretivism" (Hayes, 2000) is used in the proposed research. The initial stage of anti-positivism was the development of Verstehen (German for "understand") tradition (Hayes, 2000). According to this approach, the social and natural sciences are diverse bodies of knowledge due to distinction in the essence of the subject matter (Frankfort-Nachmias and Nachmias, 1996).

Anti-positivist researchers must understand the subjective aspects of human behaviour and human experience (Frankfort-Nachmias and Nachmias, 1996). Since I am concerned with the meaning of immersion in the virtual reality from the gamers perspective, the hermeneutic approach is used in this study. Hermeneutics essentially provides an insight into ways scientists interpret materials which can consist of both written texts and spoken words (Easterby-Smith et al., 2013). Researchers using hermeneutics investigate how individuals interpret their experience and what brings meaning into their lives (Hayes, 2000).

Although the hermeneutic approach is implemented as the main research strategy for the study, the elements of phenomenology as an inspiration for the empirical part of the project are used. Kvale and Brinkmann (2009) claim that phenomenology is a concept pointing to an interest in gaining an understanding of a phenomena from participants' own point of view. One must get the idea of why people behave in a certain way by putting himself in the place of inquiry of the subject. In other words, scientists should get a perspective of the other's reality view, of human values and attitudes (Zahavi, 2005).The world is described according to the subjects' experiences with the assumption that human perception is what makes the reality important (Kvale and Brinkmann, 2009). Hence, the phenomenologically oriented interviews are used in order to get a better understanding of why people prefer playing computer games and getting involved into the virtual reality instead of doing something different.

The interpretive process of the project starts with getting a pre-understanding of the gaming experience. The next step of interpretation is attained through a hermeneutic circle (Laverty, 2003). First parts of individuals' experiences are investigated, and then I take a look at the whole experience, and go back and forth over and over again to enhance the depth of understanding of the individuals' words (Annells, 1996; Polkinghorne, 1983). In other words, collecting and analysing data within the proposed study is not a one-time but rather a continuous process.

3.2. Empirical phases of the research

The data collection process is based on several sources of information, both primary and secondary. The primary information (the one requested by a user (Slotznick, 2000) is collected through the observation of the gamers in the computer clubs, my own gaming experience and interviews with the gamers. The secondary data (referring to gathered in the past additional

information (Slotznick, 2000)) is obtained by reading online gaming forums in order to get a deeper understanding of what people are talking about there.

The empirical process of the project consists of four phases: fieldwork, online discussion forums, me playing myself, and interviews. All of them are described below in details.

Phase 1: Fieldwork: What is gaming?

An inspiration for the study is gained from observing people playing computer games in the computer clubs. Before diving right into the research of the gamers' immersion, I learnt about the subjects of the study. It is crucial to watch gamers in their habitual environment to be able to understand their behaviour.

The purpose of this phase is to get a pre-understanding of how people act while playing and try to get what are the obvious factors which influence the process of immersion into the virtual reality. Observation is used as the main method for this phase in order to capture unusual for non-virtual reality modes of behaviour.

Phase 2: Online discussion forums.

The next step of the study is to take a step from simple observation of the individuals to analysing what they are actually talking about. This is made through checking the online game forums and reading the discussions between the players.

The purpose of this phase is to find out which game genres are the most attractive for players nowadays. According to the Entertainment Software Association "Strategy" and "RPG" (Role-playing game) were the most popular genres of computer games in 2013 (38% and 28% games sold, respectively). Hence, it is decided to focus attention on those two genres in the following phases of the research. Moreover, reading some discussions on the game forums helped to work out a gaming vocabulary, which helped to better understand the interviewees further on.

Phase 3: Me playing myself.

This is the most entertaining part of the project. I am not a gamer myself, which might be considered as an advantage, because one may abstract himself from gaming and have a fresh look at the process of immersion into the virtual reality. However, it is also a disadvantage,

because the hermeneutics approach implicates that the researcher becomes a part of the study through actively participating in it (Wilkinson, 1998).

Thus, simple observation is not enough at this point of the study, and I decided to try playing myself. It is important to get a pre-understanding of the game environment before conducting interviews.

Phase 4: Interviews.

The sampling procedure is an essential part of the research design, because usually it is unreasonable or even impossible to conduct a research taking into account the whole population (Churchill and Iacobucci, 2005).

After making a decision to focus on strategy and RPG genres, only those gamers, who play such computer games, are decided to be included in the study. Hence, it is decided to use a judgemental (purposeful) sample in order to find people for the interviews. It means that the researcher herself actively segregates the most efficient sample to answer the research questions (Marshall, 1996). After conducting each interview, I ask the interviewee to recommend a potential candidate for the study, and so forth. Hence, the snowball sampling technique (Marshall, 1996) is implemented in this project.

There are no specific guidelines for defining nonprobabilistic sample size (Guest et al., 2006). Since the purposeful sample is used, it is possible to determine its size relying on the "saturation" concept (Glaser and Strauss, 2009). It means that at a certain point no new themes or information are observed in the data (Guest et al.:2006, Glaser and Strauss:2009). Hence, twelve interviews are conducted with respect to this research. This number is considered to be enough, because it is possible to obtain a holistic picture of what influences the process of gamers' immersion into the virtual reality based on the information collected.

In order to keep the confidentiality of the interviewees it is decided to use letters from A to L instead of their real names. The visual demonstration of the sample is represented in the table 3.1 below.

As the table shows, all the informants are adults (older than 18 years old). It is important for the study to deal with the grown-up people rather than children. First of all, all of the interviewees are mature individuals with an established set of mind and priorities in their lives.

Second of all, the informants are more or less engaged with studying and/or working, which does not leave too much leisure time for gaming. This aspect makes it even more interesting to study how people segregate time for playing, how important it is to them and how strongly they get involved in the virtual reality.

Table 3.1.　　　Study sample

	Age	Sex	Country	Education	Years of playing	Preferred PC game genre
A	23	Male	Ukraine	Master	16	RPG
B	29	Male	Norway	PhD	24	RPG
C	22	Male	Russia	Bachelor	10	Strategy
D	19	Male	Norway	High School	6	Strategy
E	24	Male	Spain	Master	18	Strategy
F	50	Male	Norway	Academic	10	Strategy
G	23	Male	Norway	Bachelor	13	RPG
H	25	Male	Norway	Master	15	Strategy
I	23	Male	Japan	Bachelor	9	RPG
J	21	Male	Bulgaria	Bachelor	9	RPG / Strategy
K	21	Male	Japan	Bachelor	13	RPG
L	26	Male	Russia	Master	16	RPG / Strategy

The second criterion is sex. As one may observe, there are only males in the sample. Even though the statistics of the Entertainment Software Association shows that 45% of all gamers are women, there are no female informants in the research. A reader might consider it as a limitation of the study. However, it happens due to the decision to focus on studying RPG and strategy games. These genres are not very popular among female players unlike adventure games (Hartmann and Klimmt, 2006). The latter proposes a non-competitive task structure with the exploration, observation and puzzle-solving requirement, without immediate threats or time pressure, which is highly valuable for female players (Hartmann and Klimmt, 2006).

The next column of the table shows the variety of the nationalities that informants belong to. One might see people from Norway, Ukraine, Russia, Japan, Bulgaria and Spain. Even though the effect of cultural differences on the process of immersion into the VR is not a part of the research question, this kind of statistics might give an inspiration for the future research.

Educational background has almost the same meaning as the age in this study. All the informants (apart from one who is graduating from high school) have at least a bachelor degree. It means that they do not have that much leisure time for gaming because of necessity to study. Hence, it is interesting to see how the interviewees combine their gaming experiences with study and/or work.

The criterion "years of playing" shows that the informants are not novice players. The variation goes from 6 to 24 years of gaming experience. Hence, all of them know exactly what they expect from specific games or game genres, what they like or dislike, what makes gaming important to them, and how deeply they get involved in the games. Therefore, all the questions from the interview guide are understandable and clear for the interviewees.

Finally, preferred PC game genre column proves that the requirement to focus on the strategy and RPG games with respect to current research is satisfied. Some of the informants like playing both genres. However, most of them prefer either RPG or strategy games.

After segregating the sample I proceed to a research interviewing. There are no standard rules or procedures to conduct a research interview. However, interview investigation might consist of seven stages (Kvale and Brinkmann, 2009):

1. Deciding on a theme of the interview project.
2. Designing an interview guide.
3. Interviewing.
4. Transcribing.
5. Analysing the results.
6. Verifying.
7. Reporting.

The first step is already done beforehand by reading the theory. The theme of the interview is the process of immersion in the computer games. All the questions that are to be developed later on are directly or indirectly connected with the idea of getting an understanding of why and how people get involved into the virtual reality.

The purpose of designing an interview guide is to obtain necessary knowledge. Kvale and Brinkmann (2009) suggest two metaphors: the interviewer might be compared to a traveller and to a miner. In the first metaphor a researcher is a traveller that comes back home from a distant country to tell a tale about his journey. The second one suggests to consider knowledge as buried metal which an interviewer tries to reveal as a miner (Kvale and Brinkmann, 2009). These two metaphors represent two types of knowledge – constructed (a traveller metaphor) and given

(interviewer as a miner). However, the interviewer should remember about moral implications of the research.

A designed interview guide consists of twelve questions. The purpose of these questions is to find out what makes people interested in gaming, why they consider it to be valuable and how they get absorbed by the games. The interview guide might be found in Appendix.

The next step is the actual process of obtaining knowledge with the help of an interview. In order to get an understanding of the research problem it is decided to conduct personal interviews. They are face-to-face situations researcher asks interviewees questions to elicit the necessary knowledge (Franfort-Nachmias and Nachmias, 1996). It is chosen to use focused or non-schedule-structured interviews. There are four main characteristics of this form (Franfort-Nachmias and Nachmias, 1996):

1. The situations it refers to have been analysed before conducting an interview (reading discussions on the game forums, playing myself).
2. It proceeds based on an interview guide which specifies topics with respect to the research problem (why and how people get immersed into the virtual reality).
3. The focus of the interview is on individuals' experiences regarding the investigated situations (how informants experience gaming and what effect it has on their lives).
4. The informants are known to have been participating in a particular experience (playing RPG or strategy games).

The next four stages of research interviewing are described in the two following paragraphs. Transcribing and analysing are the methods of writing down and segregating specific knowledge from the obtained data. Verifying ascertains reliability and validity of the findings to prove that the results are consistent and that the researcher studies what is needed to be studied (Kvale and Brinkmann, 2009).

3.3. Interpretation of the data

The average time spent for each interview is 20 minutes. All interviews are recorded on a tape, and afterwards transcribed into a written text. There were no problems with transcription,

because all the interviews were done in a quiet place, and nothing disturbed either interviewer or interviewee.

There are different modes of analysing interviews, i.e. analyses focusing on meaning, on language, and general analyses (Kvale and Brinkmann, 2009). It is chosen to analyse data focusing on meaning. Hence, meaning coding and meaning condensation approaches are used in the study. Their advantage is that they structure the data and provide an overview to extensive interviews (Kvale and Brinkmann, 2009).

Coding means attaching one or several keywords to a fragment of a text to allow identifying statements further on (Kvale and Brinkmann, 2009). According to Easterby-Smith et al. (2013), coding gives an opportunity to a researcher to be plunged in the data and to get some sort of feeling or understanding for the issue. Codes are supposed to be precise and immediate and to define experience or action described by the informant (Charmaz, 2005). Basically, Gibbs (2007) claims that anything might be coded, for example, activities, events, meanings, consequences, states, relationships, and so on.

In this project coding is used in order to investigate the three dimensions of immersion described in the theory and check the influence of the social aspect as a perspective fourth dimension, i.e. imaginative, sensory, challenge-based, and social. Table 3.2 shows that these four dimensions are used as the keywords, and are attached to specific fragments of informants' interviews depending on the question asked (see Appendix for the Interview Guide).

Table 3.2.   Meaning coding

Imaginative immersion	Question 7
Sensory immersion	Question 6
Challenge-based immersion	Question 4
	Question 9
Social immersion	Question 11

The second mode of analysing data used in the project is meaning condensation. Long statements expressed by the informants are compressed into shorter formulations (Kvale and Brinkmann, 2009). It helps to capture the main sense of the whole interview by rephrasing it with the help of a few words.

Meaning condensation is used for questions № 3, 5, 8, 10, and 12 from the Interview Guide. Condensation of Question 3 helps to understand how people perceive games depending on their skills level. Question 5 is condensed in order to find out whether the informants experience either progressive or immediate immersion, as well as complete or incomplete, and to check whether all three operations of facilitating of immersion are necessary for gamers. Brief statements from Question 8 help the interviewer to get the idea of how flow and peak experience influence the process of immersion in the virtual environment. Question 10 helps to check whether the immersion is complete or not by finding out what makes people get back to the real world, and how quickly they can switch. Finally, rephrasing of Question 12 gives the researcher an understanding of how people perceive the impact of computer games on their lives themselves.

3.4. Research quality

One could have certain criteria for the quality of research. Kvale and Brinkmann (2009) suggests using concepts of validity and reliability with respect to trustworthiness and transferability of knowledge. Sandberg (2005) argues that reliability together with pragmatic, transgressive, and communicative validity are suitable criteria to be able to justify knowledge within interpretive research. Issues of validity and reliability raise questions about the knowledge objectivity (Kvale and Brinkmann, 2009). However, qualitative research is value-bound and relies on interpretations, and is believed to be subjective (Hoepfil, 1997).

Reliability refers to trustworthiness and consistency of research findings. In particular, this concept is being discussed with respect to leading questions (Kvale and Brinkmann, 2009). What is done in this research to ensure reliability of the study is a certain structure of the interview guide that avoids leading questions. The purpose of the partly-structured guide is to let people talk in order to get a deeper understanding of their motives, feelings and emotions, instead of directing them towards a particular answer.

With respect to validity in qualitative research Cho and Trent (2006) refer to a degree to which the claims of the researcher correspond to the studied reality. Kvale and Brinkmann (2009) claim that validity means the strength, the correctness, and the truth of the statements. It was promised to keep the confidentiality so that the informants felt more confident and told the truth.

The intention of the communicative validity is to assure coherence of interpretation in the dialogue between the researcher and the interviewees (Berglund, 2005). In order to be able to understand what people are actually talking about in their interviews, the researcher engages herself into going through the game forums discussions (empirical phase 2). This step provided me with the list of concepts and abbreviations that are used in the gaming context, e.g. "gameplay" (an overall experience of the game and the basic mechanisms within it), "RPG" (role playing game), "ARTS" (action real time strategy), etc.

Although it is possible to reach a coherence in a dialogue with the gamers, I should make sure that what they are telling during the interviews was the exact same thing they are doing in the real life. In other words, it is necessary to assure a pragmatic validity of the study (Berglund, 2005). In order to do this, the informants are asked to pick two games of the same genre and compare them. Since the focus of the study is strategy and RPG genres, it is important to make sure that informants play games of the necessary type. Apart from simply asking which genres they preferred, Question 5 is made as sort of a foolproof for the interviewees. They are asked to choose two games of the same genre that they are playing, and describe the differences in their perception. It is possible to check afterwards whether those games belong to either of the researched genres. Apart from that, the informants are asked to describe what they actually are doing from the very beginning (from turning on the computer) to getting involved in the game environment. If they are not playing the described games in reality, it would be hard for them to simply come up with a fake story on how they get immersed.

Finally, Golden-Biddle and Locke (1993) suggest three criteria for ensuring validity of research: plausibility, authenticity, and criticality. Authenticity refers to convincing the reader in deep understanding of the studied problem by the researcher. It is reached during phase 2 and phase 3 of the study. I was reading discussions on game forums, and tried to play some games in order to get a thorough pre-understanding of the research problem before actually conducting interviews.

CHAPTER 4
THE EMPIRICAL FINDINGS

This chapter presents an empirical analysis of the collected during the research data. The answers of twelve informants are gathered together, and meaning coding and condensation are used for the further analysis. Demographic information about players is given at the beginning of the chapter. Then I investigate whether the expectations of players (their motives to start a game) are met by analysing their own perception of the impact games have on their life and lifestyle. Further on the characteristics of immersion are studied in terms of gaming context, and a model of consumer immersion into virtual reality is presented.

4.1. Motivation for gaming

In order to get the reader into the empirical work of the study a short description of the interviewees is given at the beginning of this section. All twelve informants are males with their age varying from 19 to 50 years old. Five of them are citizens of Norway, two come from Russia, another two are from Japan, and there are representatives from Ukraine, Bulgaria, and Spain – one from each country. All of them (apart from guy who is 19 years old) have a higher education (at least bachelor degree). They all like diving into gaming, and their gaming experience on average is 13 years (some are just playing for 6-10 years, others have been playing for 18-24 years). Most of the interviewees tried different genres of games, but they decided to stick to either strategies or RPG, or both of them. That is the reason those people are valuable for the current research.

After giving a short introduction of informants, I would like to acquaint the reader with the thoughts and feelings of the players. One might start with finding out what exactly attracts people in computer games. One of the questions in the Interview guide (see Appendix) is "Why is it (playing) important to you?". The purpose here is to explore the possible motives for people to perceive gaming as a valuable experience. The question is not that easy to answer for some of the informants. They know they like playing, but what exactly makes them start playing at the first place, and why it is important to them is really hard to tell. However, the researcher managed to segregate four most distinctive aspects that might be considered as motives for playing:

1. Relaxation.
2. Entertainment.
3. Urge for new experiences.
4. Social aspect.

Some of the interviewees name just one of the aspects, others (like "B") mention all four. Starting with the first aspect, one might ask what those people want to get relaxed from. "It's all about being able to get away from the stress in everyday life" as "F" states. "E" claims that "it is a way to disconnect from this world, to relax, not to think about problems". At the same time "B", "C", and "I" simply mention that they play for relaxing and killing time.

From the times of Ancient Rome people longed for two things, i.e. bread and circuses (Toner, 2013). One may observe the same two desires nowadays (Holbrook and Hirschman, 1982). One of them – circuses – which is named "entertainment" aspect in this work is discussed next. "A" proposes an interesting idea that "computer games became one of the elements of culture nowadays. They could be compared with films, TV-shows, or short books". However, games give you a storyline which one may influence. "H" agrees that "it's more interactive than watching TV, because you can choose a story, and how things will end yourself instead of following the script". "B" states that "particular good story that I really enjoy" is what he really values. "I" also likes the story of the game. And "F" considers it as "a good way to entertain yourself, to get into a new kind of reality".

Apart from simple relaxation and amusement, people seek for some new feelings and experiences. For "L" "main reason for gaming is a desire to get new experience, and see how deep the game could go". "J" finds "games, and especially strategies and RPG, to be quite intriguing". And "B" plays games "for a particular experience", different from ordinary life.

Finally, "B", "D", "G", and "K" name social aspect as one of the reasons why gaming is valuable to them. It's either because "all my friends were playing" (according to "G"), or "for making friends" (in the case with "K"). Playing computer games is also a good way to keep in touch with the old friends (like "B" did after moving from his place of birth). However, "D" plays only online games in order to win: "Nothing feels better than winning over other people".

It is interesting to find out whether players meet their expectations when starting playing. In order to find out whether at the motives that inspire people to play are satisfied, the informants are asked to describe what effect games have on their life and lifestyle. Eventually, one might claim that there are positive and negative effects from playing computer games. Among the negative effects one should segregate wasted time ("I", "A"), addiction to being entertained ("G"), and spending too much time indoors instead of other activities ("K"). Moreover, gaming might have a bad impact on the language by developing a "gaming dictionary" which is not understandable for other non-gamers. This might eventually cause complexity in communication with some people. Apart from that, "C" states that some people get so addicted to playing that they don't distinguish between the real life and the game environment, so that they start spending real money in the online world.

However, one may notice more positive than negative effects from gaming. Firstly, it is a good way to emotionally relax ("A"), to entertain oneself without a necessity to read ("B"), and to simple get away from the ordinary life ("F"). As a reader may see, the relaxation and entertainment motives are satisfied in these cases. Secondly, it has an educational impact. Players can learn a lot about history ("E"), expand their knowledge about literary works ("A"), and develop certain skills, for example, computer and problem-solving skills ("J"). This part implies to the urge for new experiences motive. Apart from that gaming develops creative and tactical thinking, and improves one's reaction ("L"). It also has a great social aspect (the socialization motive). Playing computer games helps to learn how to work in a team ("G"), and by learning other languages through games it helps to communicate with people around the world. Finally, it has an impact on the personal development. People develop the desire to win ("D"), and constant challenging oneself makes one try to get better all the time ("H").

4.2. Flow in computer games

When gaming becomes really valuable to players? One might get an answer for this question by analysing what informants responded during the interview section. In particular, the players are asked to describe their level of satisfaction during the whole process of gaming. The analysis of the answers provides us with the three possible ways of enjoying the game:

(1) gradually growing excitement by the end of the game.
(2) periodically going up and down depending on the situation.

(3)same level of enjoyment during the whole process of gaming.

One might notice that Czikzentmihalyi's (1990) experience typology model (Figure 2.5) works perfectly well for the first two ways of enjoying the game. "E", "F", G", and "I" state that there are certain intriguing moments in the game, therefore, their excitement goes up and down from time to time. For example, "F" enjoys "adrenaline from the battles" and multiple tasks, but when it comes to routine stuff like building or developing the city, his excitement goes down. "E" describes similar situation, where excitement goes up and down due to interesting and boring parts of the game. "I" and "G" like it most when there are challenges, that is where their satisfaction grows, but then it goes down because of the routine. Taking into consideration that all informants have been playing computer games for at least six years, they are assumed to be skilled. Hence, the flow is reached when players face certain challenges, which makes the game interesting. But when it comes to doing the routine, the level of challenge is quite low, which turns gaming experience into boredom. For "A", "C", and "L" excitement grows with every mission passed. "The more challenges – the higher it gets" says "C". Eventually, climax is reached at the end of the game when the whole story is passed. Thus, "A", "C", and "L" do not experience boredom, and their level of satisfaction with gaming is always within the "sweet spot" (Czikzentmihalyi, 1990).

However, there are five informants who claim that they enjoy gaming at the same level during the whole process. Hence, Czikzentmihalyi's (1990) model might not be applied in the same way to these gamers. "D" says that "gamechanging situations are exciting at the same level". "H", "J", and "K" have the same level of satisfaction after completing each mission. "B" mentions that it depends on a game: some games cause the same satisfaction, within the others it could gradually grow. For these players the "sweet spot" line presented in the Figure 2.5. may be placed in a different way: e.g. not growing with approximately 45 degrees angle, but it might be parallel to the skills axe (Figure 4.1).

Figure 4.1.   Experience typology model within the gaming context

Thus, one might observe that if they game producers provide a certain level of challenges, then it is enough to keep some players interested in it. It is not necessary to keep adding challenging situations to the game to make it more exciting for the gamers. They will still have the same level of enjoyment from playing a game as long as there are some challenges in the virtual worlds.

Naturally, people do not enjoy games and get immersed into each game with the same level of intensity. In order to understand how quickly and deeply people get immersed, and what it might depend on in the computer games context, the informants are asked two questions: the first one refers to comparison of two games of the same genre, and the second one describes the whole process from starting the game to getting completely immersed into it. The answers show that depending on the storyline ("B"), game mechanics ("C"), customization options ("J"), and the speed of getting bored from a game ("A") one might immerse more or less in a particular game. The informants are also suggested to think of what they actually do before they dive into the virtual reality. A question "When do you think the game is over?" helps to understand whether the interviewees are able to quickly get back to the real world, and check how deeply they are immersed into the virtual one. Based on their answers, the researched could divide them into two groups – those who get completely immersed in the virtual environment, and those who do not.

4.3. Complete immersion into the virtual environment context

Out of twelve informants eight happen to get deeply, or completely immersed by the game environment. By using a meaning coding approach the key phrases are assigned for each of the responds for questions referring to the dimensions of immersion. The results are performed in tables 4.1-4.4 below. Each table relates to one of the dimensions separately. The tables contain only key phrases so that the reader grasps the main idea at a first look. The detailed description of each dimension is given after each table.

4.3.1. Imaginative dimension

Table 4.1 presents the imaginative dimension of immersion. The table contains the question from the Interview guide, which is connected with the imaginative immersion. The purpose of it is to figure out whether the game theme is valuable for consumers, and whether they need to feel safe in the game environment, or whether they expect more surprises along the storyline.

Table 4.1.   Imaginative (complete) immersion

Question/ Informant	*«What is your demand of the theme?»*
A	More surprising and intriguing storyline
D	No specific demands for theme or storyline
E	Good storyline with ability to influence it
F	Attractive theme to dive into
G	No specific demands for theme or storyline
I	Good storyline with diverse vivid characters
K	More surprising and intriguing storyline
L	Interesting storyline with elements of discovery

Six people out of eight name theme and storyline as a very important aspect of their absorption by the game environment. There should be an attractive theme to be able to dive into. For some of them, like "F" the gameworld should be reliable, "easy enough to grasp, but with certain challenges". Others search for a good storyline with "elements of discovery" ("L"), surprises and hard moments ("K" and "A"). It is also important to have diverse vivid characters, each with certain purpose or role in the game ("I"). Apart from simply good storyline, players

appreciate their ability to influence the way the game is developing ("E"). That is exactly what makes it different from watching a film or a TV-show, where a consumer can just observe, but not participate.

However, there were two interviewees, who said that they had no specific demands for the theme of the game ("D" and "G"). Storyline was of less interest for them. Hence, in their case imaginative immersion did not play an important role. There were some other aspects of gaming that made them feel immersed. It might be seen in the following subparagraphs.

4.3.2. Sensory dimension

It is believed that the more vivid the surroundings of the virtual reality are (with the help of the newest technologies), the more immersed the player becomes (McMahan, 2003).Hence, the informants are asked to describe the kind of equipment they use while gaming. This helps to figure out whether sophisticated equipment plays an important role in the process of immersion into the virtual reality. A short description of the findings is given in the Table 4.2.

Table 4.2.   Sensory (complete) immersion

Question/ Informant	*«Do you use a lot of sophisitcated equipment to enhance the level of immersion in the game?»*
A	Sophisticated equipment
D	Sophisticated equipment
E	Simple equipment
F	Sophisitcated equipment
G	Simple equipment
I	Simple equipment
K	Simple equipment
L	Simple equipment

The results, however, show that only three people out of eight use sophisticated equipment to enhance their level of immersion. The most important for them is not even the graphics, but the sounds and their ability to quickly react to something happening in the game. Thus, good quality of soundcard and headset, and a game mouse along with the game keyboard are appreciated over the other computer components.

Other five informants prefer using simple equipment, but there should be certain standards, of course. According to Strategywiki (2014) there are three main specifications of the system that affect performance in a game:

(1) the frequency of processor (in Hertz), or the number of actions the processor is able to produce per second.

(2) the amount of random-access memory (RAM), or the amount of space on PC available for the game.

(3) the amount of video random-access memory, or the productiveness of the graphics card.

Those three characteristics should be good enough (it depends on the characteristics of a specific game) to perform noninterruptable execution of the game.

4.3.3. Challenge-based dimension

The analysis of this dimension was based on the answers for two questions (presented in the Table 4.3). First of all, it is necessary to find out how people perceive their abilities as players. They are asked whether they view themselves as skilled gamers or not. Secondly, it is needed to figure out whether their level of skills influence the games they are choosing. Thirdly, I try to discover what is actually too complex environment for players, and how they cope with it. The results might be seen in the Table 4.3.

Eventually, six people consider themselves as skilled players, and four of them are basing the choice of games on that aspect. The other two, who do not perceive themselves as skilled players, also prefer choosing games depending on their level of skills. Hence, one might see a connection between the level of skills and the complexity of the game. Informants try to find a perfect combination of their own abilities with the challenges in the virtual environment to enhance their level of enjoyment.

Some people refer to hard gameplay and too complicated storyline with too many things to do ("F", "E"). "It takes much longer to learn how to play than the game itself" claims "L". Others are either unable to focus on "what is happening" ("D") or unable to pass the location, boss or whole level of the game ("A", "I", "K"). However, unlike all the others, "G" states that it

Table 4.3.   Challenge-based (complete) immersion

Question/ Informant	*«Do you perceive yourself as a skilled player? / Does it influence your choice of the games?»*	*«What happens if the game environment becomes too complex for you?*	*And what is actually «too complex»?»*
A	Skilled / No	Keep trying later	Unable to pass the location from the 10th try
D	Skilled / Yes	Quit	Unable to focus on what's happening in the game
E	Skilled / Yes	Keep trying later	Too many things to do
F	Skilled / Yes	Quit	Hard gameplay and complicated storyline
G	Skilled / Yes	-	It never gets too complex
I	Not that skilled / Yes	Keep trying later	Unable to pass the boss after too many tries
K	Not that skilled / Yes	Keep trying later OR Cheating game codes	Unable to pass the level
L	Skilled / No	Keep trying later OR Cheating game codes	Too huge locations with limited resources, hard gameplay

never gets too complex for him. Informants are asked to tell how they deal with the complex game environment. They give different answers, nevertheless, three main decisions might be segregated based on what they say. The first one, and the easiest, is to quit the game. If the gameplay or the storyline becomes too complicated, it gets boring, one might get irritated or even aggressive, and the best way out is to turn the game off. The second option is to keep trying later. Five of eight players name this variant in their responds. Finally, the last option, which is quite easy, but not as interesting is to use cheating codes from the Internet. However, two interviewees consider it a good way out, because they might find something more interesting further on without getting stuck in a boring moment ("K", "L").

Complexities of this dimension are the most common reason to stop gaming and come back to the real world. Even when gamers are too immersed, they might get physically or psychologically tired of the game ("E"). No more surprises or plot twists might cause loss of interest to a game ("L"), and boredom ("G"). However, some stop the game only due to limited time ("F") and work to do ("I", "E").

4.3.4. Social dimension

This dimension is not segregated by Ermi and Mayra (2007). However, Calleja (2011) mentions the shared involvement in the virtual reality. Hence, it is decided to check how powerful is the impact of the social aspect on the process of immersion for the possible segregation of the fourth – social dimension of immersion. Table 4.4 gives an overview of what is dicovered.

Table 4.4.   Social (complete) immersion

Question/ Informant	*«How important are those people playing on the same team with you? And do they need to be your friends in real life?»*
A	Important both friends and strangers
D	Only friends are important
E	Important both friends and strangers
F	Only friends are important
G	Only friends are important
I	Not important (no online games are played)
K	Important both friends and strangers
L	Not important (no online games are played)

It is interesting to investigate how important those people playing together with the informants are, and how much it matters whether they are friends or not. The results show that two out of eight interviewees would rather play an offline game alone than with other people. But other six prefer to play with or against real people. Moreover, three informants like playing both with friends and with random people. For the three other it is crucial to play with their friends. For example, "G" never plays alone, he always has to talk to friends while playing. For "D" "nothing feels better than winning over other people".

4.4. Partial immersion into games

Eight people who get completely immersed into the game environment are described. The remaining four are presented in this paragraph. Tables 4.5-4.8 give a graphical overview of the results. Since there are only four respondents left, there is no use in dividing this section into subparagraphs like it is done in the previous part. Hence, all four tables are presented as a past of this subchapter.

Table 4.5.   Imaginative (partial) immersion

Question/ Informant	*«What is your demand of the theme?»*
B	Good storyline and interesting plot twist
C	Good storyline and interesting scenario
H	Storyline is not that important
J	Interesting plot twist and good deal of fun

Imaginative dimension plays an important role for three out of four interviewees with partial immersion. They appreciate a good storyline, with a nice scenario and an interesting plot twist ("B", "C", and "J"). For "H" storyline is not that important, because he tends to play online games against real opponents rather than computer.

Table 4.6.   Sensory (partial) immersion

Question/ Informant	*«Do you use a lot of sophisitcated equipment to enhance the level of immersion in the game?»*
B	Simple equipment
C	Simple equipment
H	Simple equipment
J	Simple equipment

Sensory immersion seems to be much less important than the other dimensions for all four informants. They use simple or not that sophisticated equipment (usually it is a comfortable, but not special mouse, and good but not professional headset). However, one should remember about certain standards necessary for a good game performance described above in this chapter.

Table 4.7.   Challenge-based (partial) immersion

Question/ Informant	*«Do you perceive yourself as a skilled player? / Does it influence your choice of the games?»*	*«What happens if the game environment becomes too complex for you?*	*And what is actually «too complex»?»*
B	Skilled / Yes	-	It never gets too complex
C	Skilled / Yes	Quit	Annoying gameplay without good storyline
H	Skilled / Yes	-	It never gets too complex
J	Not that skilled / No	Cheating game codes	Good challenge sometimes turns into unberable situation

Three interviewees perceive themselves as skilled players, and it influences their choice of games. They seek for interesting virtual environments where they could apply their abilities. The fourth informant does not consider himself as a very skilled player, and it does not influence his choice of games. He might choose both an easy game just for relaxation, and a complex game but with a "good deal of fun" for entertainment ("J").

"C" and "J" find some complexity in the games. It might be either annoying gameplay without good storyline, which makes the game not interesting ("C"), or a "good challenge might suddenly turn into unbearable situation" ("J"). "C" chooses to quit such games. "J" prefers to use cheating codes in order to overcome a boring moment and continue playing. As for "B" and "H" it does not get too complex. For "B" it was never too complex when he was younger, because he could spend a lot of time trying to get into the game and learn how to do it. Nowadays, he cannot allow himself spending too much time on gaming, that is why "voluntary challenges" is what he really values in the games. "H", on the other hand, likes to start low and develop his skills within specific game. He really appreciates an opportunity "to learn and become the best".

Table 4.8.   Social (partial) immersion

Question/ Informant	*«How important are those people playing on the same team with you? And do they need to be your friends in real life?»*
B	Only friends are important
C	Not important (no online games are played)
H	Important both friends and strangers
J	Not important (no online games are played)

Social dimension is not that important for "C" and "J", because they prefer playing alone against computer. "H", on the other hand, considers it to be a very important aspect. The storyline is not as important for him as the ability to play with other people, either friends or some random opponents. For "B" it is crucial to play together with friends. First, it is a good way to keep in touch with those friends that do not live in the same area anymore. Second, he gets irritated by other people playing online, if he does not know them. He does not like an opportunity of being verbally abused by other people, and therefore, plays only with friends.

Those people who get only partially immersed have no difficulties in stopping the game. Their consciousness is always in the real world, they are "either with or away from the

keyboard" ("B"). They prioritize their personal life ("C"), and only play when they have free time and nothing else to do ("H").

4.5. Model of consumer immersion into virtual reality

The analysis of the empirical results of the study provide us with four dimensions of immersion described above. However, so far they are investigated separately from each other. The reader might not get a clear picture from the tables 4.1 – 4.8 how these dimensions work together. Hence, it is suggested to build a model of consumer immersion into virtual reality based on the connection between all four characteristics. This model might provide a reader with a better understanding of which dimensions play more important role for consumers in the process of their immersion, and which do not. However, one should remember that the constructed model is not a theoretical model, it is just a way to present the results of the study.

The model is constructed in the following way. First, the assumption is made that whenever players have certain demands for the theme of the game, the imaginative immersion becomes valuable to them. Since there are nine informants who have specific requirement to the game environment, nine points are given to imaginative immersion. Second, the sensory dimension is evaluated according to the number of people who prefer sophisticated equipment for the better immersion. There are only three out of twelve informants, who appreciate sensory immersion, thus, only three points are assigned to it. Third, eight players state that it is important to play either with friends or with friends and random people. It is assumed then that social dimension of immersion is of a great importance to those players. Hence, the social dimension is evaluated to eight points. Finally, nine informants choose games according to the combination of their skills and challenges within the games. Thus, an assumption that the challenge-based immersion is valuable to them is made. Therefore, nine points are assigned to the latter dimension. The results of such logic is presented in the Figure 4.2 below.

Figure 4.2.　　The model of consumer immersion into virtual reality
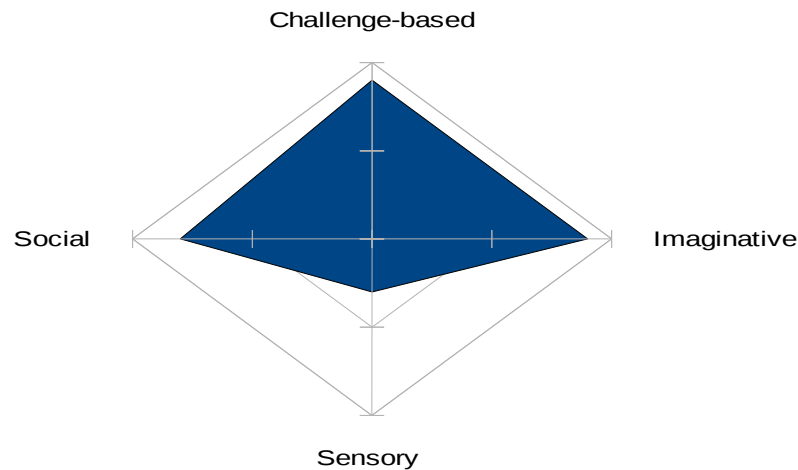
As one may observe, the sensory dimension is not particularly important for players. They get immersed on a psychological level rather than on physiological one. The parameters of the equipment used might be really advanced, but it does not have the greatest impact of the process of immersion. The other three dimensions are considered to be of approximately the same importance for gamers. People search for some challenges within a good storyline, which makes the game interesting. But they also like being able to share their experiences with other players.

4.6. Layers of immersion

Inspired by the two ways of getting immersed, suggested by Caru and Cova (2007), I would like to check what way is more common in terms of gaming. The informants are not asked directly how fast they manage to get immersed. Instead they are given a sort of a suggestion to tell a story of what is happening from the moment they turn the computer on till they get focused on the game environment. By squeezing the essence of the story and narrowing it down to a few main phrases, I happen to discover that ten out of twelve interviewees immerse at once, i.e. they experience immediate immersion. Some of them need to take a big cup of tea ("A"), or fix lights and sound ("L) beforehand. It means that two of them need some sort of preparation before actually starting playing. But after beginning the game, their attention is totally focused on the game, nothing in particular is disturbing for them.

However, there are two informants who do not get immersed right away ("D" and "J"). They have some sort of rituals when switching from work to leisure time. For example, they

have to change the clothes to a comfortable one ("I never play in jeans" - "D"), prepare snacks, call friends and invite them to play together, and check their progress and characters first. By doing all this stuff they are progressively plunging themselves into the virtual reality. Every action they do before getting deep into a game is to make themselves as much comfortable in that microenvironment as possible.

As a result, one might see that there are three layers of getting for immersed for those who do it progressively. The first one includes making sure that the game environment "feels like home" ("D"). The second one is to check what has already been done in a game, for example, "check the progress and the characters"as"J" does, and to investigate what are the new things that might be done next. Finally, it is getting deep into the virtual environment by letting one's imagination work, i.e. focusing on the microenvironment of the game instead of things in macroenvironment. These stages might be presented graphically in the Figure 4.3.

Figure 4.3.   Layers of immersion with respect to gaming
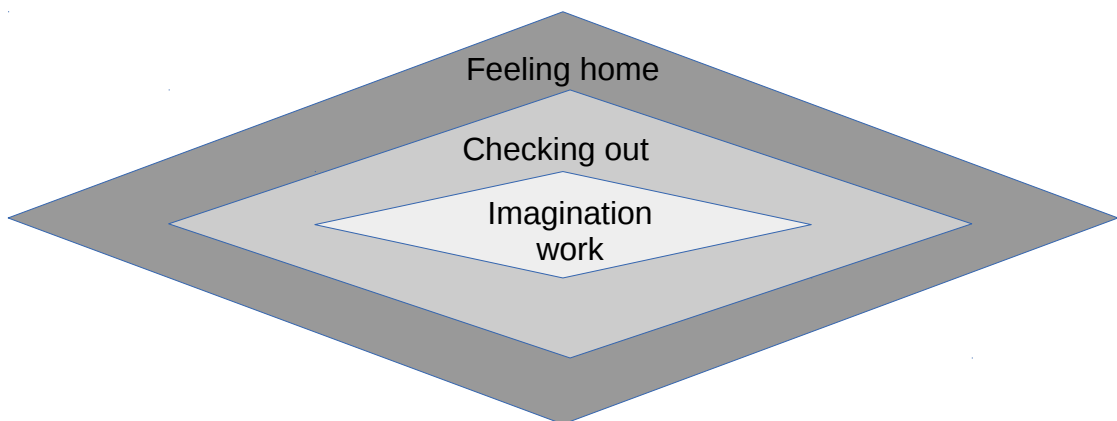
However, taking into consideration those informants, who get immersed immediately, one might see a different picture. The may also follow the same pattern as presented above. For example, "A" or "L" do need to make some preparations like making food or bringing drinks to make it more comfortable for them to play. Hence, it is the first layer of immersion – making it feel like home. "H" follows the second layer from time to time by calling friends and asking them what's new there in the gameworld, i.e. investigating which games to play. Finally, all of the informants get engaged into the last layer – the work of their imagination. However, most of those who get immersed at once do not have enough time or desire to make preparations and discover something new. The only desire they have is to plunge themselves into the game environment and enjoy time spent there. Hence, it is not necessary to get deeper into the first two layers of the process, because they never actually leave them.

4.7. Summary

The analysis of the empirical data provides us with several interesting findings. The first subparagraph starts with the description of motives for gaming, i.e. relaxation, entertainment, urge for new experiences, and socialization. Players expect to satisfy at least one of them when starting a game. The analysis of the possible impacts that gaming has on the consumers' life and lifestyle shows that consumers' expectations are more or less satisfied. Moreover, players are able to reach flow in gaming. However, some of them might not follow the Csikszentmihalyi's (1990) "increasing skills – increasing challenge" consumer experience typology model. Some informants may enjoy the whole process of gaming at the same level.

The next parts of the chapter are devoted to the process of immersion in computer games. It is discovered that some people get immersed at once, others do it progressively. Nevertheless, all players are influenced by four dimensions of immersion (imaginative, sensory, challenge-based, and social) in a varying degree. This results in building a model of consumer immersion into virtual reality based on the impact of each dimension. Finally, the three layers of deepening into gaming are figured out: feeling home, checking out, and imagination work. However, it is not necessary that a player gets through all three of them all the time. One might subconsciously stay within the first two layers, and just go straight to the work of their imagination when starting a game.

CHAPTER 5

DISCUSSION

The investigated research literature on consumer experiences shows the complexity in understanding what exactly consumers expect from an event or an activity. Thus, a number of questions are raised for discussion, such as how consumers experience immersion in a virtual context, what it means to get immersed, and how important are the dimensions and appropriation operation for getting immersed in the gaming environment. The answers to these questions are given in the following paragraphs of the chapter.

5.1. Enlargement of the immersion concept

Different approaches to defining what immersion is were made during the last decades. One might find this concept in every aspect of life. It could be seen in everyday activities (Abuhamdeh and Csikszentmihalyi, 2012), the general experience economy (Pine and Gilmore, 1999), entertainment field (Caru and Cova, 2006, Jennett et al., 2008), and as a metaphorical term (Murray, 1997).

According to Pine and Gilmore (1999) immersion is one of two dimensions of being involved in the process. They key aspect of the concept is that a customer becomes a part of the experience, regardless whether it is physical or virtual process. As a metaphorical term immersion refers to the experience of being virtually transferred to a place. This experience is pleasurable itself, and the content of the fantasy does not really matter in this case (Murray, 1997). Hence, the main idea here is that people try to engage themselves in activities that bring them a feeling of being psychologically immersed and surrounded by totally different reality. Caru and Cova (2006) are investigating immersion in terms of musical field. They suggest that a core of immersion is a secure thematised enclave. It is more important to describe the environment in which customers get immersed than to give a definition to the term. Devotion of one's attention is the central point of immersion in Abuhamdeh and Csikszentmihalyi 's (2012) opinion. Indeed, the attentional involvement is necessary to gain joy and satisfaction from an event. The higher the devotion level is, the higher is the level of enjoyment. Finally, Jennett et al. (2008) investigate immersion in terms of computer games, which is exact the same context this

project is focusing on. They describe immersion as a lack of awareness of space and time along with the feeling of being engaged in the task environment.

Even though these researchers investigate immersion from absolutely different angles, it is possible to find certain common aspects of the concept. There are specific characteristics of those who get immersed into a particular process or activity:

(1) lack of awareness of space and time (Jennett et al., 2008).

(2) attentional involvement (Abuhamdeh and Csikszentmihalyi, 2012).

(3) secure thematised enclave (Caru and Cova, 2006).

(4) experience of being plunged into different reality (Murray, 1997).

(5) becoming a part of experience (Pine and Gilmore, 1999).

Even though Jennett et al. (2008) are focusing on the meaning of immersion in terms of computer games (the same viewpoint as used in this project), their definition might be enlarged with some important aspects. First of all, one might add a few more characteristics of those who get immersed. Jennett et al. (2008) do mention lack of awareness and task environment, but they are not talking about the devotion of attention (Abuhamed and Csikszentmihalyi, 2012) or importance of being part of experience (Murray, 1997, Pine and Gilmore, 1999). Moreover, one might not notice a basis for immersion in Jennett et al. (2008) definition, i.e. a pre-understanding of why people choose to get involved in the activity.

As a result of the empirical analysis, it is found out that all the specific characteristics of immersion segregated by previous research are present with respect to virtual reality. By combining them and adding a pre-understanding of why people choose to immerse, the enlarged definition of immersion is suggested. Therefore, the **first contribution** of the project is to assign a following meaning to the concept "*immersion*":

a feeling of physical or psychological belonging to a thematised context, based on a desire to relax, entertain oneself, get a new experiences, or socialize, with the attentional involvement in the task environment, characterized by a lack of awareness of space and time.

One might observe that a suggested definition might broaden the meaning of immersion as a whole. The previous research is focusing basically on the environment that customers immerse into. However, it might be important to concentrate on the reasons, why consumers

want to immerse in the first place. It is their desire to relax, have fun, get new expereinces, and socialize, which brings them forward towards immersion. Hence, by gaining this understanding, one may discover new ways of making consumers immerse even deeper into virtual reality.

5.2. The fourth dimension of immersion

One of the initial ideas of the study is to find out which dimension of immersion described by Ermi and Mayra (2007) has the strongest impact on the actual process of being plunged into the virtual environment. However, some other researchers (Calleja, 2011) inspire me to be open-minded and search for some other dimensions of immersion, that might be relevant to gaming context and potentially have an intensive impact.

One might start with checking the impact of the existing three dimensions, i.e. imaginative, sensory, and challenge-based immersion (Ermi and Mayra, 2007). Imaginative dimension allows a player to use his/her imagination in order to get a deeper involvement (Ermi and Mayra, 2007). It refers to the engagement with the elements of the story and the qualities of the virtual reality space (Calleja, 2011). Indeed, it proves to be a very important aspect for the interviewees. Most of informants are attracted to an interesting storyline and theme, that they might dive into. Which is even more important for players are elements of the story evolving from the consumer's interaction with the computer game (Calleja, 2011). The ability to influence the development of the game is extremely valuable to gamers since that is what distinguishes it from simply watching a film or reading a book, which might be too boring for a contemporary consumer. However, for some interviewees theme and storyline do not play any particular role, and they appreciate other aspects of virtual reality than that.

There are three research focusing on the next dimension of immersion. Ermi and Mayra (2007) call it sensory dimension, and claim that it is the most recognizable dimension. McMahan (2003) refers to audio- and video-realism of the games, which is not necessarily needed to produce a sense of immersion. On the contrary, Slater and Wilbur (1997) talk about "vividness", which is considered to be the most influencing dimension. The empirical results of the study show, however, that some previous research might be applied to computer games, others not. Indeed, sensory dimension is the most recognizable one, because it refers to audio- and video-equipment that people use to enhance their feeling of presence in the virtual reality (Ermi and Mayra, 2007). It provides the same effect as, for example, using a big screen, good sound

system or 3D glasses when enjoying the film. However, it happens not to be the most important dimension as Slater and Wilbur (1997) state in their work. According to the results of the interviews it is discovered that most people would rather use simple equipment when playing computer games. Of course, it should be of a certain standard to provide non-interruptable performance. Nevertheless, the feeling of immersion might not really enhance with using too sophisticated equipment. Thus, I must agree with McMahan (2003), that audio- and video-realism are not vital elements for producing a more intense sense of immersion.

Ermi and Mayra (2007) claim that challenge-based immersion plays a crucial part in playing computer games since they require an active participation of consumer. Calleja (2011) shares the same opinion and argues that conscious attention is highly valuable with respect to this dimension due to the complexity of situations within the game. I have to agree with these researchers on the importance of a challenge-based dimension. The analysis of the interviews reports on attempts of informants to find a perfect combination of their own abilities with the challenges in the virtual environment to enhance their level of enjoyment. All interviewees like challenges. Although some prefer voluntary challenge, others like quite simple ones, third seek for really hard tasks to satisfy their ego. In any case a certain element of complexity should be present in every game, otherwise it is just the routine which kills the interest to the game and makes it boring. As a result, challenge-based immersion proves to be appreciated by every player.

However, some researchers are not totally satisfied with the dimensions of immersion described by Ermi and Mayra (2007). For example, Calleja (2011) expands the list of dimensions of involvement in the virtual reality, and mentions shared involvement in his work. Yet he refers to interaction with the other characters in the virtual environment, both computer- and human-controlled. I, on the other hand, am concerned with the social aspect of gaming, hence, the computer-controlled characters are not interesting in terms of this research. Nevertheless, the categorization of Calleja (2011) inspired me to check the impact of other players on the depth of immersion into computer games. The results show that most players prefer to play with or against real people. For some of them it is especially important to play with their friends, for others random people and friends are equally valuable. Moreover, the social aspect indeed is one of the reasons people start playing computer games in the first place. And according to the answers on the question about the lifestyle the social impact of computer games is extremely strong. Hence, the **second contribution** of this paper is providing empirical support to Calleja's (2011) shared dimension of involvement, but with focus on its social rather than the

computer-based aspect, and suggesting social dimension as a fourth one to the Ermi and Mayra's (2007) description. Consequently, it might support the definition suggested in the previous part of the chapter, in particular, the desire to get social as one of the reasons for immersion.

It might be, however, impossible to say definitely which dimension – social, imaginative or challenge-based – has a more intense impact on the process of immersion at this stage of the study. Taking into consideration Figure 4.2., one might assume that all three of these dimensions have approximately the same influence on the process of consumers' immersion. It may be, thus, an idea for the future research, to figure out which of the three is valued the most by consumers.

5.3. The necessity of going through all appropriation operations of immersion

Caru and Cova (2006) are concerned with the question of facilitation of immersion in consumption experiences. They suggest three appropriation operation that should make it easier for the consumer to get immersed into a particular event. They are nesting, investigating and stamping. But is it the same within the gaming context? One might find a very interesting answer for this question.

The empirical part of the study shows that players are immersed in two different ways: immediately and progressively. For those who get immersed progressively the model of Caru and Cova (2006) works perfectly well. First, they need to get acquainted with the environment, provide some familiar attributes (like "playing pants" for "D") in order to feel safe, to feel like home. The first layer of immersion – feeling home (presented in the Figure 4.3) - is the exact description of the first appropriation operation described by Caru and Cova (2006), i.e. nesting. Second, players start to explore their progress in a game, investigate new locations and characters to be able to develop the game in the desired direction. The checking out layer corresponds to the second appropriation operation of Caru and Cova (2006) – investigating. Players plunge into the third layer – the imagination work – when they feel ready to start playing. They have created a comfortable atmosphere, gained enough knowledge to continue playing, and the only thing left is to dive into the virtual reality with the help of their imagination. Hence, one might associate with the third operation facilitating immersion – stamping.

Although it works for gradual immersion, it might not apply for immediate one in the same way. The process of immersion may follow the same pattern, described by Caru and Cova (2006). However, it is more likely that one or even two layers are skipped. Usually all three operations are present when a player starts a brand new game of a totally different genre. In this case he/she is not familiar with the environment, with the context, characters, etc. Therefore, the first step is to make oneself feel comfortable in the new environment. One of the ways to do it is to ask friends what they think of this or that game before starting playing. When one receives a positive feedback on a particular game, he/she feels safer and is not afraid of diving into totally new reality, because it is not that new already.

The following step is to explore the new game. Players start watching introduction videos, reviewing characters and locations, trying different modes and options in the game, etc. By trial and error approach gamers get to know the game, learn how to play it and get themselves prepared for the next step. Thus, these procedures remind us of the investigating operation.

Finally, when the users feel safe, comfortable, and confident within the new environment, they start playing. Gamers let the virtual environment wrap their imagination, and their consciousness is entirely focused on the game.

However, it usually happens only when trying a brand new genre. When the gamers (like in the case of this study) stick to one or two specific genres, one or even two stages are omitted. Players know what to expect from the virtual reality, and they actually feel comfortable in it without prior preparations. In case when people continue the same game, they don't even need to investigate what is new there. They remember the story and most of the times their progress within the game, so they get immersed right away in order to save time.

Hence, the **third contribution** of the study is to differentiate Caru and Cova's (2006) model of immersion with respect to gaming context. The nesting and investigating operations might not be necessary for most informants who get immersed right away. They keep all the aspects of games in mind. It only takes a few moments to make one's imagination work. Thus, the most important phase is considered to be stamping, while the other two appropriation operation could be omitted.

CONLCUSION

The knowledge from the research on cosumer experiences in virtual reality might find application both in theory, and in practice. The empirical findings from this project may enrich the theory on consumers experiences, in particular, their immersion aspect. Based on the framework of Caru and Cova (2003, 2006, 2007), Holbrook and Hirschman (1982), Schouten et al. (2007), Vargo and Lusch (2004), one might build an understanding of what people expect from an event, and how they get engaged with it. The current study might enlarge one's understanding and give new perspectives on some previous research. One may think of the importance of immersion for the overall consumer experience. However, it is necessary to remember that consumer experience itself could be as valuable as the process of immersion.

There might be numerous ideas for the future research. One may study some other aspects of immersion, for instance, its consequences for consumers and people that surround them. One could also do a quantitative study based on this research to provide more empirical data using the same game genres as a basis for the research or switching to the new ones. The study of the other contexts of virtual reality might be the other possibility for the future research. For example, one might investigate how tourist settings, museums or theme parks, for instance, use virtual tourism to attract more customers. One might also broaden the frames of virtual reality, and study different platforms that use the notion of VR for creating new worlds. Finally, some researchers might be interested in making a comparison of the real travel to the tourist attraction that creates a new environment for customers at the site, and virtual travelling to the destinations while staying at home.

When thinking of practical implications of the findings, one might consider two directions: the development of gaming industry and virtual tourism. In the case of video games, one might see that companies try to increase the level of co-operation with consumers. For example, in order to create a consumer-designed product, firms allow consumers to transform part of their proprietary content (Arakji and Lang, 2007). The current research might give a more thorough understanding of what is really valuable to the consumers, so that producers of computer games keep developing their goods depending on this knowledge. For instance, the empirical part of the paper proves that sensory immersion might not be of that great importance to consumers, as the other dimensions of immersion. Hence, game producers may not direct their energy towards developing an extremely complicated platform, that requires sophisticated

equipment. They could rather concentrate their attention on developing a more intriguing storyline with a lot of voluntary challenges and more opportunities for players to influence the story, and choose their own way of the development in the game. At the same time, video game firms might try to enhance the level of social immersion into virtual reality. For example, one may give a player more options to build one's own identity in the game. In other words, one could be able to give his/her character such characteristics, which a player possesses him/herself. Hence, the characters may become more alike with the player, and it could be more fun to play with friends, because one might deal with almost the same personality as a friend has within the virtual reality.

The results of the paper could be also used by the managers of tourist attractions, which face a lot of challenges when promoting the destination (Gretzel et al., 2006). An understanding of why people tend to immerse in the virtual reality might help travel managers to develop tourist setting in accordance with what consumers expect most. For example, let us imagine a museum, which uses virtual promotion of artefacts. Virtual reality museums refer to settings that use computer generated stimulation and animation of building paths and historical artefacts presented virtually along with the real world objects (Zolkifly et al., 2008). One could imagine getting immersed into the world that existed hundreds of years ago as if it was real one with the help of the computer technology. The developers of such attractions could think of the dimensions of immersion in order to enhance the feeling of consumers' presence at a destination. For instance, they could apply the imaginative dimension by developing an interesting storyline for consumers to follow and be able to influence it. Or they could make it possible for a customer to become a part of a conversation that could have happened in the past in order to enhance the social dimension. The challenge-based immersion could be implicated as a learning tool, and have an educational effect on customers. For example, one could develop a virtual historical tour, which could allow visitors of museums to immerse into the past. However, after each section there might be a sort of a challenge, i.e. quiz or puzzle to solve, in order to be able to move to the next part.

To summarize, numerous ideas of how to apply the results of this study are presented above. However, these might not be the only possible implications of the findings within this research. One could always be creative, and get some inspiration for the future development of the experience economy.

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Interview guide

1. Please, introduce yourself (name, age, where you come from, civil status, educational background, what you do in your life).

2. When did you start playing? How much do you play now? Why is it important to you?

3. What type of games do you prefer? Please, pick 2 games of the same type (1 – you are experienced in, 2 – a new one to you) and tell me about the differences in your attitude towards them. Why do you think those differences occur?

4. Do you perceive yourself as a skilled player? Does it influence your choice of the games? Why?

5. Please, describe what you normally do when you start playing: the whole process from the very beginning (e.g., turning on the PC) to getting totally focused on the game environment.

6. Do you use a lot of sophisticated equipment to enhance the level of immersion in the game?

7. What is your demand of the theme? Do you need to feel safe, or on the contrary there should be an element of surprise?

8. When is gaming really valuable to you? What is the level of your satisfaction with the game during the whole process of gaming?

9. What happens if the game environment becomes too complex for you? And what is it "too complex"?

10. When do you think the game is over? And what makes you get out of the game to the real world?

11. How important are those people playing on the same team with you (if you play online team games)? And how is that important to you for them to be your friends in real life?

12. Will you, please, summarize yourself, what impact do games have on your life and lifestyle?