GAMIFICATION IN ACTION:
HOW TO INCREASE EMPLOYEE MOTIVATION AND ENGAGEMENT BY DEPLOYING A GAMIFIED CRM SOLUTION

Case: Finnish Environmental Management Company

Jyväskylä University
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ABSTRACT

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Abstract

Gamification has been recently enjoying wide attention of researchers and practitioners in various domains. Thus, gamification has been accused for several shortcomings, and even its academic worthiness has been questioned. Despite these issues, gamification and its various applications seem to be an increasing trend in the digital era.

Gamification has the potential to be leveraged in various non-game contexts, such as healthcare and education. But, the evidence of the effectiveness of gamification in its various usage points is mixed to this date. In this study, the focus is on examining gamification in the context of CRM system gamification. The focus of inquiry is to examine, whether gamification and specific game-elements motivate Sales Consultants to use CRM more efficiently, and whether CRM gamification effects Sales Consultants engagement. In addition, gamifications' effect on Sales Consultants productivity is examined. The past studies investigating gamification's ability to promote motivation and engagement have offered mixed results, and large part of these studies have been conducted in pedagogic contexts. In addition, majority of these studies have been using quantitative methods.

This qualitative study is based on a single-case study approach, and it was conducted for a Finnish environmental management company. Gamified experiment was arranged in March 2019, in which five Sales Consultants participated. The gamification platform that was used was provided by Microsoft Dynamics 365. The data was collected during April 2019.

According to the results of this study, gamification and certain game-design elements can promote motivation and engagement in a moderate level. The empiric evidence regarding the anticipated correlation between motivation, engagement and Sales Consultants productivity was proven to be insufficient. Managerial suggestions include a notion, that not every organisation will benefit from CRM system gamification. Also, it is crucial for managers to understand the individual differences in people. As an example, employees that are motivated by intrinsic challenges and exploration, may suffer when being motivated by pressuring extrinsic incentives. Usually, employees will pay back to their respective organisations with a higher level of engagement, if they are granted with the right resources. But if they don't, the resource has not been valuable for them in the first place. In itself, this would be a valuable finding about employee's state of mind. A greater engagement to work and motivation do not only benefit managers or their respective organisations: individuals who experience engagement also tend to be happier.

Keywords: Gamification, CRM, Motivation, Engagement.

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Tiivistelmä

Pelillistäminen on saanut aikaan paljon keskustelua viime vuosien aikana. Pelillistämisen konseptia on kritisoitu monenlaisista syistä, ja jopa sen tieteellisyys on kyseenalaistettu. Kritiikistä huolimatta pelillistämisen ja siitä johdettujen applikaatioiden hyödyntäminen on yleistynyt laajasti eri toimialoilla.

Pelillistämistä voidaan soveltaa erilaisissa konteksteissa, joita ei perinteisesti ole yhdistetty pelimaailmaan. Esimerkkejä tällaisista alueista ovat esimerkiksi terveydenhuoltoala ja koulutussektori. Tutkimustulokset pelillistämisen hyödyllisyydestä ovat tähän mennessä olleet jokseenkin ristiriitaisia.

Tämä työ keskittyy tutkimaan CRM-järjestelmien pelillistämistä. Tarkoituksena on tutkia, että voidaanko myyntikonsulttien CRM-järjestelmän käyttöä tehostaa ottamalla käyttöön tiettyjä pelielementtejä. Erityisen tarkastelun alla on pelillistämisen vaikutukset myyntikonsulttien motivaatioon ja sitoutuneisuuteen *(eng. engagement)*. Sitoutuneisuutta voitaisiin tämän tutkimuksen kontekstissa kuvata myös syventyneisyytenä työtehtävään, tai vastaavasti positiivisena tunteena, jonka yksilö voi kokea jonkin toiminnan viedessä mukanaan.

Aikaisemmat tutkimukset pelillistämisen kyvystä parantaa motivaatiota eivät ole olleet yksiselitteisiä. Lisäksi, suuri osa pelillistämistä käsittelevistä tutkimuksista on toteutettu koulutussektorilla. Useimmat näistä tutkimuksista on myös toteutettu kvantitatiivisia menetelmiä hyödyntäen. Tämä kvalitatiivinen case -tutkimus toteutettiin suomalaiselle ympäristöalan yritykselle. Pelillistetty CRM-kokeilu järjestettiin vuoden 2019 maaliskuussa, ja siihen osallistui viisi yrityksen myyntikonsulttia. Alustana toimi Microsoft Dynamics 365 pelillistämissovellus. Haastattelut ja materiaalin analysointi suoritettiin huhtikuun 2019 aikana.

Tutkimuksen tulokset osoittavat, että pelillistäminen ja tietyt pelielementit voivat vahvistaa myyntikonsultin motivaatioita ja syventyneisyyttä. Empiiriset tulokset kohonneen motivaation ja syventyneisyyden yhteydestä myyntikonsulttien tuottavuuteen osoittautuivat kuitenkin riittämättömiksi. Lisäksi tulokset osoittavat, että kaikki yritykset eivät todennäköisesti hyödy CRM-järjestelmän käytön pelillistämisestä. Menetelmän voidaan olettaa sopivan hyvin myynti-intensiivisiin organisaatioihin. Mitä tulee motivaatioon, johdon tulisi selkeämmin tunnistaa ihmistenväliset henkilökohtaiset erot. Henkilöt, jotka todennäköisimmin motivoituvat esimerkiksi itsensä haastamisesta tai uuden oppimisesta, voivat kärsiä ulkoisten kannustinten aiheuttamista paineista. Jos organisaation työntekijöillä on käytettävissään oikeanlaisia kannustimia ja resursseja, he ovat todennäköisesti sitoutuneempia organisaatioonsa.

Avainsanat: Pelillistäminen, CRM, Motivaatio, Sitoutuneisuus

Säilytyspaikka: Jyväskylän yliopiston kauppakorkeakoulu

4

FIGURES

TABLES

CONTENTS

ABSTRACT
FIGURES AND TABLES
CONTENT

6

Truth is stranger than fiction, but it is because fiction is obliged to stick to possibilities; Truth isn't.

Mark Twain, Following the Equator:
The Journey Around the World (1897)

1 INTRODUCTION

1.1 Background and positioning of the study

Games are played all around the world. Yearly, millions of people use an uncounted number of hours to the activity in question. The past 20 years have been the golden years of digital games in popular culture, entertainment and academia (Seaborn & Fels, 2014), making games one of the most prominent medias in the globe (vanRoy & Zaman, 2019).

As early as in the 1980's, a scholar called Thomas Malone described games as the source of "heuristics for enjoyable interfaces" (Deterding, 2012). Towards the end of 2000's, games began to spread into more serious arenas, such as education and training. Evolving web technologies, new digital business models and location-based services further aided the expansion of the domain (Nacke & Deterding, 2017).

The emerging success of online game-environments and increasing console sales have encouraged researchers to investigate games and their impacts more in detail (Seaborn & Fels, 2014). The exploration of human-computer interaction began to shift the interest towards motivation research as well. Later, this interest and the becoming industry hot-topic became known as *gamification*. The term was first introduced by an American consultant, that used the word to describe his job of making IT equipments more entertaining (Dale, 2014). Gamification is commonly defined as the "*use of game design elements in non-game contexts, to motivate certain behaviours*" (Deterding, 2012). Thus, gamification as a concept is not new. It has it roots embedded in our history, most explicit examples of its usage are reward memberships, degrees and grades (Nelson, 2012). Military as well has been long using badges and ranks as substitutes for monetary rewards (Dicheva, Dichev, Agre & Angelova, 2015). The "re-emergence" of gamification can be initiated by the increased popularity of digital games and less expensive technologies.

Dale (2014) reports, that markets are giving mixed signals about the adoption rates of gamification applications: there seems to be a great demand for such applications, but the reported failures in meeting business objectives remain high. A possible reason for this confusion may be, that the understanding of gamification and how it works is still inadequate. When looking deeper into this issue, it can be found that academic research provides no clear understanding about gamification, and how it can be used to motivate desired behaviours (Robson et al., 2016). This can be interpreted slightly concerning, as Hamari, Koivisto & Sarsa (2014) report that the number of academic publications on gamification has been increasing steadily throughout the years.

In its essence, the goal of gamification is to engage and motivate people to reach set objectives (Dale, 2014). Motivation is one of the main concerns for managers, as unmotivated people tend to produce low quality work and exit their respective organisations quickly (Amabile, 1993). In contrast, highly motivated people tend to excel in their work and be more creative and engaged. Although

gamification is thought to be a practical instrument to foster human motivation, the research of the actual motivational force of gamification has remained insufficient (Yang, Asaad & Dwivedi, 2017). Alsawaier (2018) weights, that further investigation on relationship between gamification, engagement and motivation is needed. Hence, vast majority the scholarly work on the effect of gamification to motivation is conducted by quantitative methods, and only a small share is utilizing qualitative methods (Seaborn & Fels, 2015). In the future, motivation is likely to become an even more important managerial issue (Amabile, 1993), and therefore investigating it further is seen reasonable.

The aim of this empirical, descriptive study is to give managerial insights on how to motivate case company's Sales Consultants to use CRM system more efficiently, and how gamification may be leveraged to achieve business goals. In the following chapter, research questions for this study will be proposed.

1.2   Research objectives and research questions

The early empirical research on gamification was focused on answering a simple question: does gamification work? (Deterding & Nacke, 2017; Hamari et al., 2014). This early wave of scholarly work helped to validate the concept of gamification, but from the standpoint of research continuity, this knowledge is dissolving rapidly. In order to research to expand and make sense practically, it must flow in and out from theory. Theories can explain empirical findings and lead the way for further investigations. (Deterding & Nacke, 2017)

According to research, gamification has the potential to support motivation in various circumstances (Sailer et al., 2013). But as stated earlier, the empirical proof of the power of gamification in motivating and engaging people in non-game contexts is scarce (vanRoy & Zaman, 2019; Seaborn & Fehls, 2015; Sailer et al., 2017). The objective of this study is to contribute to the empirical research of gamification and examine its linkage to human motivation and engagement. In this case study, the contextual focus is on CRM system gamification. Motivation will be examined from two general types of human motivation, extrinsic and intrinsic. Extrinsic motivation is often left aside in empirical research (Kuvaas, Buch, Weibel, Dysvik & Nerstad, 2017) and therefore, special attention will be given to this concept.

Sailer et al., (2017) argue, that several studies consider gamification as a solid concept. In reality, the concept of gamification is extremely multifaceted. Due to this, it is not appropriate to investigate the motivational potential of gamification as a one, universal construct. Sailer and colleagues (2017) suggested, that the focus of inquiry should be on examining the impact of specific game design elements in a given, specific contexts. Motivation research tends to suggest, that certain game elements have a linkage to several motivational mechanisms (Sailer et al., 2013).

Because both gamification and motivation are multi-layered concepts, they are examined with a two-level question. The first research question examines the subject from a more holistic standpoint: *Does gamification increase Sales*

Consultant's motivation to use CRM? The sub-question (1a) aims to examine, whether the use of two specific game-elements, leaderbord and points, increase Sales Consultant's motivation to use CRM.

> **1. Does gamification increase Sales Consultant's motivation to use CRM**
>
> a) Does leaderbord and points increase Sales Consultants motivation to use CRM

> **2. Was Sales Consultants engagement affected by CRM system gamification**

> **3. Can CRM gamification increase Sales Consultant's productivity**
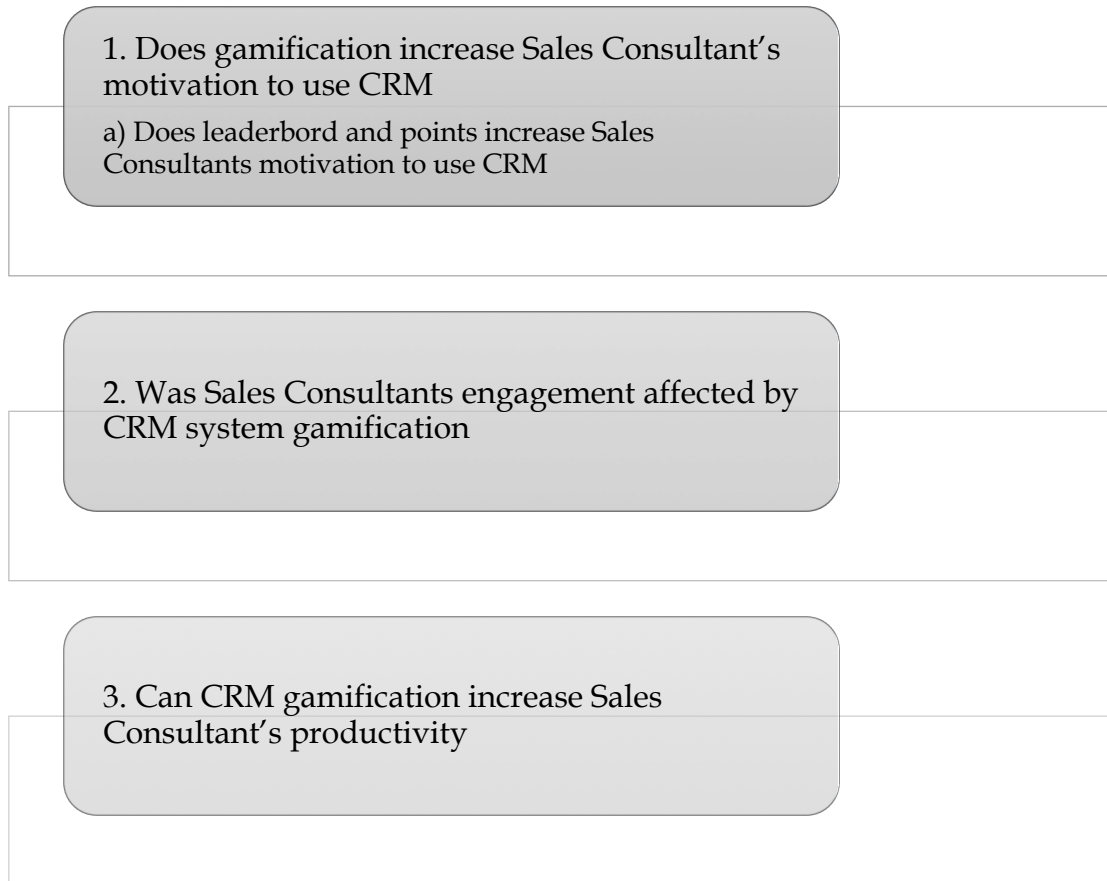
FIGURE 1: Research questions

The second concept of interest in this study engagement. Engagement and motivation are conceptually related, as they share many similarities in regard to intrinsic motivation and cognitive engagement (Alsawaier, 2018). According to Xu (2011), gamification has the ability to promote extrinsic motivation, and this could in the short term, motivate engagement. In theory, gamification can make work more fun and entertaining, but there is a lack of practical research on gamification's ability to reinforce engagement (Yang et al., 2017). Employee engagement in particular is thought to have a straight link in to a company's bottom-line results (Macey & Schneider, 2008), which makes it worthy of an investigation. Due to these reasons mentioned above, the following and second research question is proposed: *Was Sales Consultants engagement affected by CRM system gamification?*

The third research question is drawn from the previous questions with the delicate assumption, that the increased motivation and engagement to accomplish certain tasks may potentially, increase the productivity of work. In order to

examine whether this correlation exists, the third research question to this study is proposed: *Can CRM gamification increase Sales Consultant's productivity?*

1.3 Case Company introduction

The case company has a substantial history in producing environmental and facility services in Finland. Throughout the years, the company has been evolving and growing steadily due to several acquisitions. Today, the company has international operations as well. Company's strategy relies on few core components: new business growth, increased productivity, continuous development across functions, and the enhancement of employee and customer experience. Along with operational goals, the company has several high-level goals it strives to achieve in the society. Successful achievement of these goals would impact the lives of many.

In order for the company to build on its core strategic focus areas and to achieve its short-term and long-term goals, the ability to innovate, experiment and re-new operations and practises plays a crucial role. So far, the company has been succeeding in this, as several innovative digital applications and services have been launched in recent years along with the continuous improvement of existing operations. Customers are expecting more comprehensive services and solutions, which drives innovation but also adds pressures. Continuous development is the mantra of many, but in the case of this case company, it is the most critical component of their business.

Based on the company's strategic goals and their innovative and open business culture, the ideation for experimental CRM system gamification began to seed. It is worthy of noting, that the concept of CRM system gamification (as gamification in itself) in Finland is yet in its infancy, as there are barely few companies that have, or are leveraging it. Reasons for this are unclear, but it is likely to stem from the fact that gamification and its various usage points are still relatively unknown. Interestingly, empirical research has shown signs of maturity, and there are also few well-known gamification researchers coming from Finland. On the other hand, CRM system gamification seems to be increasingly popular especially in the United States. It may be loosely interpreted, that gamification has some elements that do not fit the Finnish culture as they are. In this study this aspect is taken care of, as the game design is stripped of from some unnecessary clichés.

As stated in earlier chapters, gamification has the ability to promote motivation and engagement in different contexts. Motivated and engaged employees tend to be more involved and creative, when compared to less motivated and disengaged employees. The goal of this experiment is to focus on examining the motivation and engagement of the case company's Sales Consultants, as this aspect has remained unexamined in the company. CRM system is the most important tool for case company's Sales Consultants, and more information about the effective usage is needed. As discussed above, employee experience is one of the strategic focuses that the case company strives to nurture, along with better

productivity. Gamification has the potential to affect positively to employee experience, while making ordinary tasks more interesting and engaging. The productivity aspect of the case company is approached from the standpoint of Sales Consultants motivation and engagement, as it is anticipated, that increased motivation and engagement could potentially, increase case company's Sales Consultants productivity. As stated above, searching ways to improve productivity remains as one of the most important strategic goals for the case company.

1.4   Structure of the study

This case study aims to contribute to the existing gamification literature by examining CRM system gamification in a natural setting. Additionally, gamification's impact on motivation, employee engagement and productivity will be examined. The paper is organized as follows. The study is divided into five chapters, and the structure is shown in Figure 2. In chapter 1, the background and positioning of this study are explained. Additionally, the research objective and research questions are addressed.
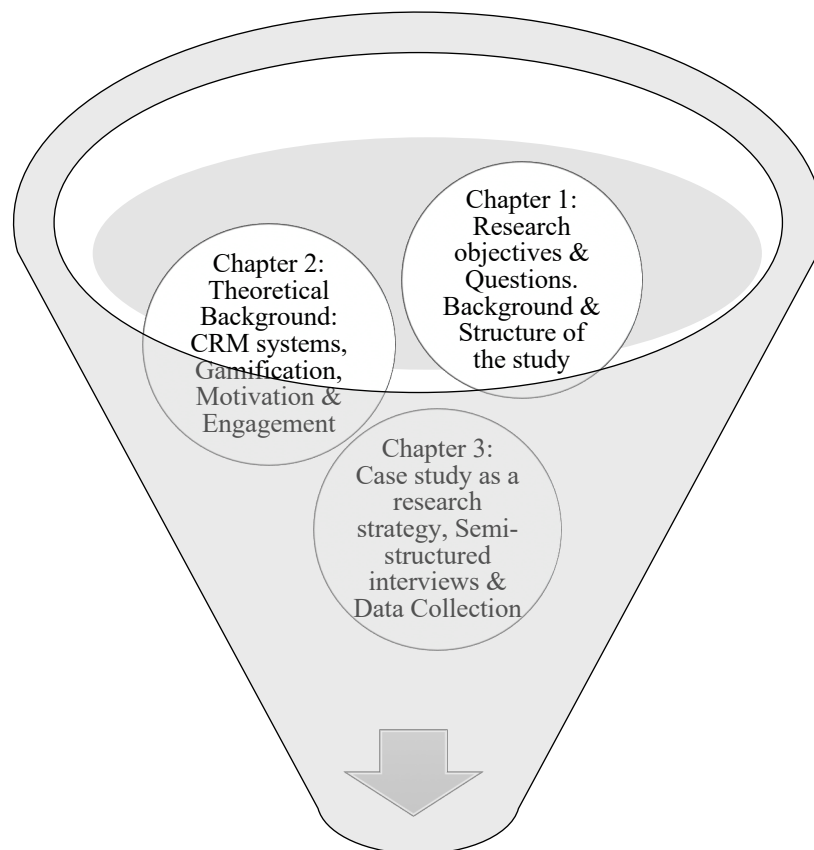
Chapters 4 & 5; Results and Discussion

FIGURE 2: Structure of the study

In chapter 2, the existing literature and relevant research concepts will be overviewed. This includes the emergence of CRM and the concepts of gamification, motivation and engagement. A closer look will be given to extrinsic and intrinsic motivation. At the end of the chapter, the connection between gamification, motivation and engagement will be addressed.

In chapter 3, the methodology of this study will be revealed. This includes justification of the chosen (case study) research strategy and overview of the case company. Additionally, data collection methods and data examination techniques will be glanced through and evaluated.

Towards the end of this study in chapter 4, the results will be reported and analysed. The results are allocated under specific research themes, in order to make them more readable. Finally, in chapter 5, the research questions will be answered. In the last section of this final chapter, avenues for future research will be proposed.

2 THEORETICAL BACKGROUND

2.1 Digitalization

Digitalization has been one of the main disruptors of societies and businesses for the last 30 years, and it is likely to affect them in the near- and long-term future (Parviainen, Tihinen, Kääriäinen & Teppola, 2017). Scholars have often referred to digitalization as *"the changes associated with the application of digital technology in all aspects of human society"*(Stoltermann & Fors, 2004). Some authors compare digitalization to the industrial revolution (Parviainen et al., 2017).

The effect of digitalization or 'digital transformation' has been through out across industries. Companies have been forced to adopt digital-savvy strategies and seek new and more innovative business models to adapt to this forceful change. Some companies have succeeded in tackling the challenges of digital world, others have failed and become forgotten. Consumers in the other hand spend much of their time in digital environments, causing them to change their behaviour and overall consumer patterns rapidly. The environment is challenging to say the least, as survival and growth are everyday concerns for modern companies. Thus, digitalization offers many opportunities to engage with customers more efficiently. Businesses and other entities seek constantly new ways to benefit from digitalization and its various applications. Due to the fast development, technologies have become more affordable for companies to leverage and consumers to use. Technologies are used increasingly in all kinds of management tools, and one in particular will be discussed in the following chapters.

Customer Relationship Management (CRM) entails both strategy and technology perspectives that have become increasingly important in the modern, turbulent world of today (Nikolic, Stankovic & Simic, 2014). CRM rise to the agenda early in the 90's due to the common challenges in the business environment, that were briefly discussed above. CRM has been defined as a technology, holistic strategy, and as process to name a few, it can be defined and understood from various perspectives. The emergence of CRM practice and its various definitions and perspectives will be discussed in chapters 2.1 and 2.1.1.

2.1 The emergence of CRM

Initially, CRM began to emerge due of increased competition and heightened consumer demands (Bull, 2003). Increased competition was thought to be tackled with more customer centric approach to business and customer interactions. Thus, cultivating customer relationships can be historically traced back to the pre-industrial era (Parvatiyar & Seth, 2001, pp. 5).

From a research point of view, CRM emerged from the academic tradition of Relationship Marketing and the growing importance of customer retention

(Light, 2001). Relationship Marketing postulates, that is more effective to nurture existing client relationships, than to focus on acquiring new customers. Scholars have tent to use the terms CRM and Relationship Marketing (RM) interchangeably (Parvatiyar & Seth, 2001).

According to Reicheld (1996), companies that focus on retaining existing customers can receive many benefits and better their financial performance. He argued, that in long-term customer relationships customer tend to buy more, and they may be bring more customers in through recommendations. He also stated, that a new customer won't be profitable, until the relationship has been retained for at least a one year or so. According to Subhash (2004), using CRM has other benefits too: a closer interaction with the customer has the potential to drive innovation and collaboration between the ends.

According to Parvatiyar and Seth (2001), the rapid expansion of the service economy and the de-intermediation process as a consequence have significantly contributed to the development of CRM concept. The de-intermediation process refers to the rise of sophisticated technologies that allowed manufacturers to communicate directly with their end-customers. Services are typically delivered and consumed at the same time, which increases the need for closer interaction and relationships. (Parvatiyar & Seth, 2001)

Another significant facilitator to the emerging CRM practise has been the enormous growth of data, that followed from digital transformation. Soon, vendors began to capitalize customer specific data in to IT solutions, that were later referred as *CRM systems* (Boulding, Staelin, Ehret & Johnston, 2005). CRM systems enable organisations to obtain and storage customer data and analyse it for different business purposes. The current forms of CRM systems usually have these basic functions at the core, but along with technological advancements CRM system capabilities have become more advanced.

2.1.1 Definitions and perspectives

As stated earlier, the definitions of CRM and its perspectives vary in the literature (Bull, 2003). Based on a literature review done for this study, definitions of CRM are classified into four categories (see table 1). Based on this search, definitions that included strategy perspective to CRM were most common in the literature. According to the more infrequent and narrow views, CRM is purely a technological tool to retain and attract customers.

Definition	Perspective	Source
"CRM is a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer. It involves the integration of marketing, sales, customer service, and the supply-chain functions of the organization to achieve greater efficiencies and effectiveness in delivering customer value."	CRM as a strategy	Parvatiyar & Seth (2001)

"CRM is an ongoing process that involves the development and leveraging of market intelligence for the purpose of building and maintaining a profit-maximizing portfolio of customer relationships"	CRM as a process	Zablah, Bellenger & Johnston (2004)
"CRM is not a discrete project—it is a business philosophy aimed at achieving customer centricity for the company"	CRM as a philosophy	Hasan (2003)
"CRM is the technology used to blend sales, marketing, and service information systems to build partnerships with customers"	CRM as a technology	Shoemaker (2001)

TABLE 1: Literature review on definitions and perspectives of CRM

One of the most classic views on different forms of CRM is based on the work of META Group (2001), in which CRM is distinguished into strategic, collaborative and analytical CRM. Based on this conceptualization, Payne and Frow (2005) proposed their strategic framework (see figure 3, pp. 17), that shall be discussed further in this chapter. In the following sections, we cover three forms of CRM that extent in to three levels: *strategic, operational and analytical CRM.* In this conceptualization, collaborative CRM is treated as a subset of operational CRM (Rababah, Mohd & Ibrahim, 2011).

Strategic CRM

Strategic CRM concerns the decision-making processes that relate to the organisation's strategy definition and the selected strategic models (Tanner, Ahearne, Leigh, Mason & Moncrief, 2005). Additionally, strategic CRM is involved in the facilitation of customer-focused organization culture and the allocation of value-based resources (Rababah, et al., 2011). Tanner et al., (2005, pp. 171) identified four important issues in the strategic level, that relate to the purposes of strategic CRM, and the intensified need to effective resource allocation. These key-issues are account management, organizational structure, environmental issues, and knowledge management.

Operational CRM

Operational CRM is focused on backing operational activities (Nikolic et al., 2014) and the management of appropriate business processes (Tanner et al., 2005). Operational CRM is concerned with optimizing front office workflows, with the emphasis on sales, marketing and service automation (Tanner et al., 2005; Rababah, 2011). Thus, operational CRM includes e.g. the technology's strategic role in an organization, along with other broader issues. Collaborative CRM is treated as a subset operational CRM as they operate in the same level. Collaborative CRM is focused on customer and communication channel integration (Rababah, et al., 2011), whereas operational CRM focuses on working with key stakeholders.

Analytical CRM

Analytical CRM entails processes, that are involved in the analysis of customer and market information (Tanner et al., 2005). Analytical CRM is based on operational CRM, and it is especially concerned with the analytics of customer data. Analytical CRM uses data mining and other statistical tools to derive value out of data sources and gathers useful information to support company's strategic decision making (Rababah, et al., 2011). Another functions of analytical CRM includes sales forecasting, customer segmentation, price analysis and life cycle cost calculation (Nikolic et al., 2014). According to Tanner and colleagues (2005), the value derived from analytical CRM depends on data quality and the sophistication and applications of the analytical tools. Thus, if the customer data that is available is incomplete or faulty, even the best tools can't make a difference. Tanner et al., (2005) also note that investments on analytical CRM benefit both customer and the enterprise.

Based on previous conceptualization, Payne and Frow (2005) formed a strategic model for CRM (figure 3), which incorporates five generic CRM processes that the authors identified from the literature. These processes are: *strategy development process, value creation process, multi-channel integration process, information management process* and *performance assessment process.*
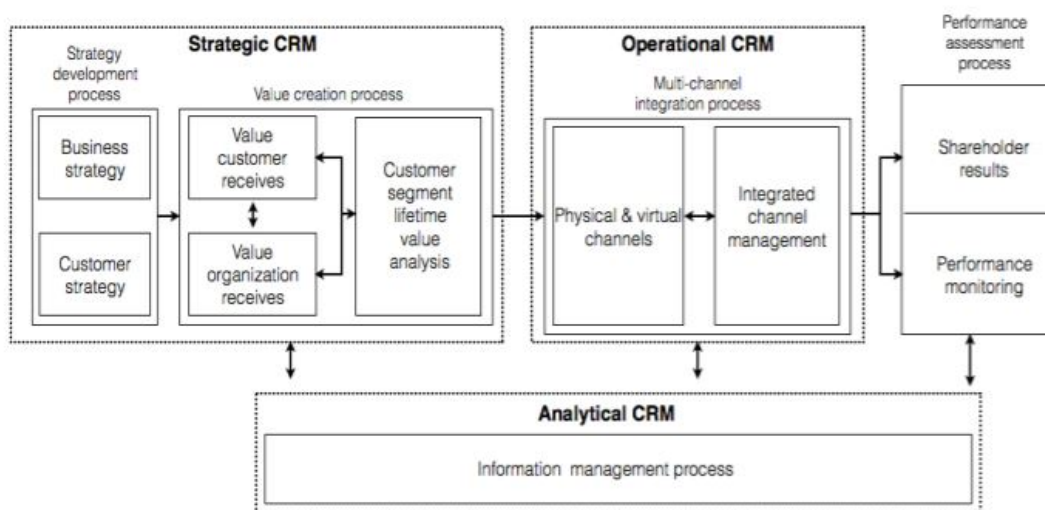
FIGURE 3: A strategic framework for CRM (Payne & Frow, 2005)

According to Payne and Frow, the strategy development process focuses on both company and customer strategies. The process starts with business strategy development and continues to customer strategy refinement. The outputs of the strategic process are then transformed in three processes, by which company creates and extracts business value. This entails the value that the customer receives, the value that the company receives and the possible life-time value of the retained customer. Payne and Frow stated, that the multi-channel process is the most crucial part of CRM, as it collects outputs of from the previous processes

and transforms these into activities that create the actual value. This process is concerned with optimal mix of channels, and how they should be used in interaction with customers. The information management process is focused on data gathering from all customer contact points and the analysis this data. The latter process also entails data warehousing and the application of all the analytical tools that are needed to extract valuable insights from customer data. The last piece of the framework, performance assessment process, focuses on assuring that the activities in regard to CRM are delivered accordingly. The process entails two aspects: shareholder results and performance monitoring. (Payne & Frow, 2005)

2.2   Techonology Acceptance Model

Adoption of technologies in the context of work has been concerning scholars and practitioners alike, and after entering even deeper in to the digital age, these discussions have become increasingly important. *Technology Acceptance Model* (TAM), proposed by Fred Davis (1985) has been enjoying wide support for explaining the variance in technology usage and behaviour (Venkatesh & Davis, 2000). TAM stems from the psychological theory of reasoned action (TRA) which concentrates on explaining human behaviour (King & He, 2006). The number of journals concerning the adoption of CRM systems in particular have been on a steady rise.

According to TAM, user acceptance depends on users motivation, that is influenced by a stimulus stemming from the actual system features and capabilities (Chuttur, 2009). The modified conceptual model for technology acceptance is described in figure 4. A central proposal in TAM is that two constructs, *perceived ease of use* and *perceived usefulness,* dictate whether person is going to use a technology or not. TAM also postulates that the easier the technology is to use, the more beneficial it is for the user (Venkatesh, 2000).

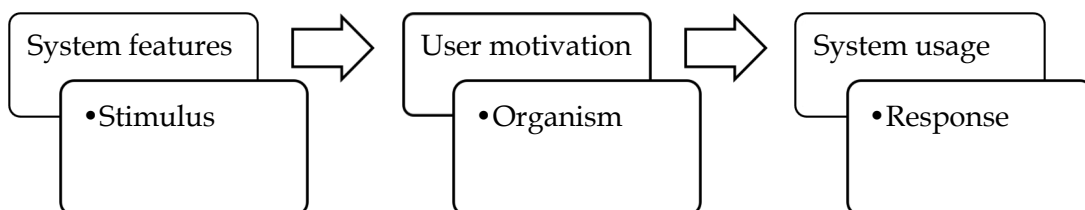| System features		User motivation		System usage
•Stimulus		•Organism		•Response

FIGURE 4: A modified conceptual model of user acceptance (Davis, 1985)

Successful adoption of technologies can increase employee productivity, but if a company fails in this, the consequences may vary from direct monetary losses to problems with employee satisfaction (Venkatesh, 2000). According to Venkatesh (2000), the empirical research indicates that intrinsic motivation has a

crucial role in the use of technologies in the work context. Intrinsic motivation will be discussed in more detail in chapters 2.3.1 and 2.4.1.

According to the work by King & He (2006), TAM still represents a robust model to examine technology acceptance, and it has the potential to be applied into different contexts. Examining TAM's usefulness in regard to the adoption of gamified systems would be an interesting task. Alsawaier (2018, pp. 56) also stated, that the implementation guidelines of gamified applications are limited, thus desperately needed. Due the limitations and goals of this study, this point of view has to be excluded. Thus, TAM shall be shortly revisited again in chapters 4 and 5.6, when the results and avenues for future research will be explored.

2.3 Motivation

Motivation is a perennial issue in psychology organisational studies. Motivation describes the reasoning behind human action, and in order for us to understand behaviour in gamified environments, understanding of motivation is crucial. (Grant, 2008)

Motivation guides both general and work-related behaviours (Lin, 2007, pp. 137). Indeed, Brooks and Goldstain (2012) state that motivation is in close relation to psychological drivers that direct behaviour and choice making. Motivation refers to the psychological processes that concern energy, direction and persistence (Ryan & Deci, 2000a; Latham & Pinder, 2005). In short, to be motivated means "*to be moved to do something*" (Ryan & Deci, 2000a, pp. 54). Scholars have suggested several definitions to deliberately capture the nature of the concept. Dörnyei and Otto (1998 pp. 64) defined motivation as broadly as "*the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritised, operationalised, and (successfully or unsuccessfully) acted out.*" Kanfer (1990) descriptively argued, that motivation can't be traced by human eye explicitly; what we see and comprehend is a stream of certain behaviours and the results of those behaviours.

The concept of motivation is manifold, but it is being often treated as a singular phenomenon. Generally, people are motivated by a very different set of factors (Ryan & Deci, 2000a). In addition, people vary not only in the amount of motivation, but in the orientation of that motivation (Ryan & Deci, 2000a, pp. 54). Few scholars have segregated motivation into five parts; t*ask value, ability belief, expectancies for success,* as well as *extrinsic and intrinsic motivation* (Alsawaier et al., 2017). In general, there are two broad classes of human motivation: *intrinsic and extrinsic.*

Motivation research has identified three common and dependent variables of motivation (Kanfer, 1990). In a work setting, these can be described as;

1. *Direction of behaviour*
2. *Intensity of action*
3. *Persistence of direction-specific behaviour*

Direction of behaviour regards to a certain activity that a person is doing. Intensity of action describes how intense the individual's approach is to such activity. Persistence refers to the time spent with certain activity. (Kanfer, 1990)

The two main motivation types, extrinsic and intrinsic, will be discussed further in the following chapters. After this, two basic motivational theories will be glanced through in order to give a broad, thus concise view of motivation. The selected theories are Self-Determination Theory (in chapter 2.4.1) and Maslow's Need Hierarchy (in chapter 2.4.2). Both of these theories address employee motivations (Howard, Marshall & Swatman, 2010), which resonates with the purposes of this study.

2.3.1   Intrinsic motivation

According psychologists and many scholars in general, intrinsic motivation plays a substantial role in various social and economic interactions (Benabou & Tirole, 2003). Intrinsic motivation can be depicted as a tendency to overcome challenges, explore and exercise one's capacities, and this tendency is inherently present in every human being (Ryan & Deci, 2000a). A common definition of intrinsic motivation is composed by Deci (1972): "*person is intrinsically motivated, if he performs an activity for no apparent reward, except the activity itself*". In other words, when a person is intrinsically motivated, he or she is willing to do something because the action itself is considered fun, engaging or challenging – not because of external restrains or compensation.

Many scholars have described intrinsic motivation with slight differences. Maslow (1943) discussed about "self-actualization" which describes one's capacity to fulfil inner potential. Self-actualization resides at the top of his Hierarchy of Needs pyramid, which is a classic theory in human psychology. Alderfer's (1972) work described human needs, that result from investigative and exploratory behaviours, and a person's need to influence one's surroundings. A common nominator in these theories has been the concept of competence: humans seem to have an inherent need to feel competent in what they do (Wiersma, 1992).

Deci and Ryan (Deci & Ryan, 1985) argue, that intrinsic motivation springs from two psychological needs: competence and self-determination. Intrinsic motivation has been traditionally seen as an all-encompassing construct, but some scholars have suggested that intrinsic motivation could be divided in to a distinctive types (Vallerand, Pelletier, Blais, Briere, Senecal & Vallierers, 1992). This so-called "tripartite taxonomy of intrinsic motivation" will be described below.

Tripartite taxonomy of intrinsic motivation, or, "the tripartite model of intrinsic motivation" (TMIM) distinguishes IM in to three main types; *IM to know, IM-to accomplish things* and *IM-to experience stimulation* (see figure 5). The model proposes that intrinsic motivation is a multidimensional concept (Carbonneau, Vallerand & Lafreniere, 2012). According to Carbonneau et al., (2012) these three types have partly same antecedences, but they differ in supposed outcomes and underlying mechanisms.

IM-to know refers to concepts such as intrinsic intellectuality, curiosity-driven behaviour, a search for meaning and one's need to comprehend

(Vallerand, Blais, Briere & Pelletier, 1989; Vallerand et al., 1992). IM-to know stems from educational research tradition, and it can be defined as doing an activity for the sake of perceived satisfaction from learning (Vallerand et al., 1992). As an example, attending specific classes in a university, and feeling fulfilment and joy from learning in such situations can be considered an action that is maintained by IM-to know.

```
┌──────────────────────┐        ┌─────────────────────┐
│                      │        │     IM-to know      │
│                      │        └─────────────────────┘
│  Intrinsic motivation│        ┌─────────────────────┐
│        (IM)          │────────│   IM-to accomplish  │
│                      │        │       things        │
│                      │        └─────────────────────┘
│                      │        ┌─────────────────────┐
│                      │        │   IM-to experience  │
│                      │        │     stimulation     │
└──────────────────────┘        └─────────────────────┘
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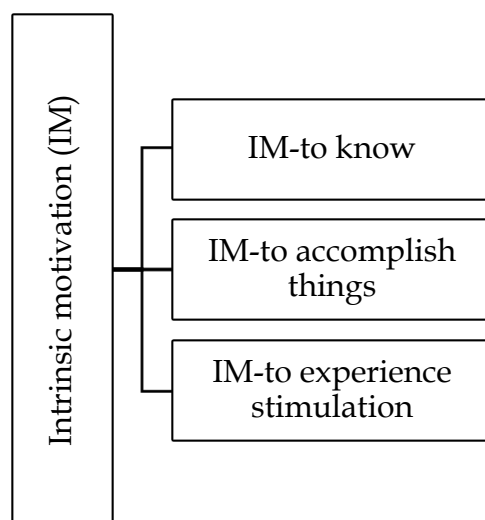
FIGURE 5: A modified tripartite taxonomy of IM (Vallerand et al., 1992)

IM-to accomplish things relates to activities, that are pursued due to the experienced satisfaction when attempting to accomplish a certain objective (Carbonneau et al., 2012). IM-to accomplish things relates to intrinsic challenge (Harter, 1981) and mastery motivation (Kagan, 1972). IM-to accomplish things can be defined as the state of being involved in an activity, where satisfaction is experienced and relates directly to one's willingness to create or accomplish things (Vallerand et al., 1992). A person may display IM-to accomplish things, when one is exceeding set goals in order to experience enjoyment.

IM-to experience stimulation is present, when a person is engaging in an activity for the sake of stimulating experiences e.g. excitement or sensory pleasure (Vallerand et al., 1992). An example, a person that is watching science documentaries in order to feel stimulating sensations are motivated by this type of IM.

2.3.2 Extrinsic motivation

Traditionally, psychological theory has been more involved in investigating intrinsic rather than extrinsic form of motivation (Amabile, Hill, Beth, Hennessey & Tighe, 1994). Extrinsic motivation activates whenever a person is only moved to do something to achieve instrumental value. In other words; when one is extrinsically engaged, the reasoning behind the activity *is not* the activity itself (Ryan & Connell, 1989). Extrinsic motivation is typically contrasted with intrinsic motivation, but they can be seen as complementary constructs as well. Whereas

intrinsic motivation refers to doing something because it is inherently enjoyable, extrinsic motivation refers to doing something because it leads to a specific, favourable outcome (Ryan & Deci, 2000a, pp. 55). Essentially, extrinsically motivated behaviours are to receive rewards or avoid punishment as the underlying goals for engaging in activity (Kowal & Fortier, 1999). According to research, extrinsic motivation has the ability to influence employee motivation and performance as well (Bjorklund, 2001; Chowdhury, 2007).

Some perspectives have suggested that extrinsic motivation is strictly non-autonomous, but the work by Ryan and Deci (1985) and supporting colleagues proves that this may not exactly be the case. According to Self-Determination Theory (a contemporary theory of human motivation and personality), extrinsic motivation can be divided in to four forms, that vary in a continuum. These forms are *external regulation, introjection, identification* and *integration* (see figure 6). These will be discussed along with the self-determination theory in chapter 2.4.1.
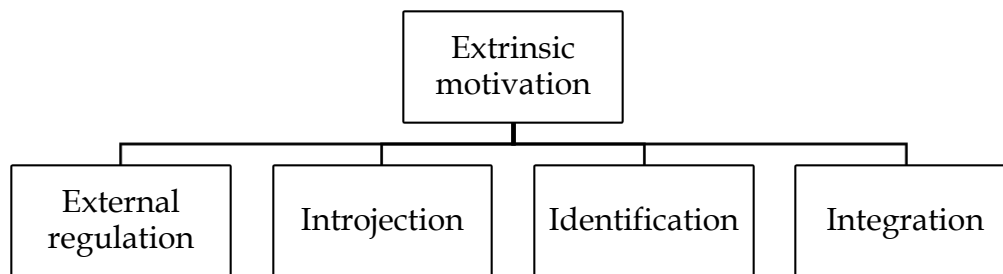
FIGURE 6: Forms of extrinsic motivation. Adapted from Ryan and Deci (1985)

2.3.3 The relationship between intrinsic and extrinsic motivation

The antagonistic view on intrinsic and extrinsic motivation has prevailed since the academic inception of these forms (Hayamizu, 1997). Substantial body of research tends to suggest that intrinsic and extrinsic motivation are in many aspects, in conflict with one another (Benabou & Tirole, 2003), or at least, separate constructs (Amabile, 1994). Although they are commonly seen as contradicting, together they influence the intentions and behaviour of an individual (Lin, 2007).

Empirically, the dynamic between intrinsic and extrinsic motivation has remained uncertain (Amabile, et al., 1994). Some scholars suggest that they are compatible constructs, whereas other explain that they build on another (Amabile, 1993). Lepper & Greene (1978) proposed that the relationship between the two might be correlated. Their work suggested, that intrinsic motivation will decrease when extrinsic motivation increases. Similar theories have since emerged, and a general proposal in them seems to be, that when an activity is supported by extrinsic motivations, intrinsic motivation to engage is set to decrease (Amabile, 1993).

As stated earlier, the research on intrinsic and extrinsic motivation tends to suggest that the relationship between these forms is antagonistic; when the other form increases, the other one has to decrease. Based on this, Amabile and colleagues (1994) investigated in their WPI research whether intrinsic and extrinsic motivations symbolize orthogonal entities, or respective ends of one dimension. According to their work, intrinsic and extrinsic motivation are more or less orthogonal, and that in some personality orientations, high levels of intrinsic motivation can coexist with equally high levels of extrinsic motivation, but only for a short period of time (Amabile, 1993, pp. 193). In conclusion, their work suggests that under certain circumstances, these motivational forms can support and complement one another, but not in the same fashion as proposed in Maslow's (1943) need theory (Amabile, 1993). According to their theory, positive synergies between intrinsic and extrinsic motivation can be formed, when intrinsic motivation is in appropriate level.

Extrinsic rewards and intrinsic motivation

Several studies have been conducted in order to examine extrinsic rewards and intrinsic motivation. The results have varied from positive, negative to neutral effects (Cameron, Banko & Pierce, 2001). Extrinsic rewards are often visible rewards, that can be given in different contexts to direct behaviour. A common nominator in extrinsic rewards is their monetary value. Employees e.g. Sales Consultants are commonly awarded with bonuses or promotions.

A substantial number of studies have indicated that the opportunity to gain extrinsic rewards when engaged in intrinsically motivated activities may decrease individual's intrinsic motivation (Deci, 1971). These findings have led scholars to investigate the relationship between extrinsic rewards and intrinsic motivation in more detail. A general finding in these studies has been, that tangible rewards can undermine intrinsic motivation. According to Deci (1971), intrinsically motivated behaviour forms a pre-stage of autonomous activity, which extrinsic motivators undermine (Deci, 1971; Hayamizu, 1997). Deci (1971) argued that activities that intrinsically motivated are not dependent on external awards.

Extrinsic rewards can influence intrinsic motivation in a positive and a negative way (Wiersma, 1992). According to Wiersma (1992), extrinsic rewards may affect intrinsic motivation negatively, if the activity is considered controlling. If a person receives competency information from the extrinsic reward, the effect to intrinsic motivation is opposite. Based on this, Deci developed Cognitive Evaluation Theory (CET), which explains why extrinsic rewards decrease intrinsic motivation. CET will be discussed in chapter 2.4.1.

In this study, the relationship between extrinsic rewards and intrinsic motivation is partly examined by awarding the best scoring player with a substantial monetary reward. The results of this experiment will be revealed and examined in chapters 4 and 5.

2.4 Motivation Theories

2.4.1 Self-Determination Theory

Self-Determination Theory (SDT), initially developed by Edward L. Deci and Richard M. Ryan, is a contemporary theory of human motivation and personality. SDT uses traditional empirical methods while employing an organismic metatheory, that highlights the importance of human's inner resources for personality development and behavioural self-regulation (Ryan & Deci, 2000b, pp. 68) According to Gagne & Deci (2005), SDT was formulated on the basis of different types of extrinsic motivation. SDT postulates, that human behaviour is based on different types of motivation that vary in their level of self-determination (Guay, Vallerand & Blanchard, 2000).

SDT and the initial needs for intrinsic motivation are based on three concepts: *autonomy, competence,* and *relatedness* (Alsawaier, 2018, pp. 60; Deci and Ryan, 2008; Seaborn and Fels, 2015). Self-determination posits different types of motivation in a continuum (see figure 7). SDT separates *amotivation* (the absence of motivation) and motivation. Additionally, SDT highlights the distinction between *autonomous motivation* and *controlled motivation*. Autonomy translates to endorsement of person's action at the highest level of reflection (Dworkin, 1988). Autonomous motivation and controlled motivation are considered as intentional, both within contrast to amotivation. Amotivation is a state of lacking in any kind of motivation: amotivated person has no intention to act. These motivational variables concern a person's relation to a set of activities and are predicted from the aspects of social environment and individual differences (Gagne & Deci, 2005). A central proposal that SDT makes is that extrinsic motivation varies between controlled and autonomous degree.

Amotivation resides at the far left of the continuum, that as stated earlier, translates to the absence of motivation or intention to act. At the far right is intrinsic motivation, which translates to doing activity for the sake of itself. The different forms of extrinsic motivation, external regulation, introjected regulation, identified regulation and integrated regulation, cover the continuum between these ends. (Ryan & Deci, 2000b)

The least autonomous and most controlled type of extrinsic motivation is external regulation. External regulation is the classic type of extrinsic motivation (Gagne & Deci, 2005 pp. 334). Externally regulated behaviour occurs, when a person is pertaining a certain behaviour in order to gain immediate external satisfaction e.g. receive rewards or to avoid punishment. Moderately controlled type of extrinsic motivation is referred as introjected regulation. This type of extrinsic motivation and regulation is taken in by the person, but the individual doesn't recognise this as his or her own (Gagne & Deci, 2005). In introjected regulation, behaviours are performed in order to satisfy one's ego, feel worthy or to avoid feelings of anxiety and distress (Ryan & Deci, 2000b).

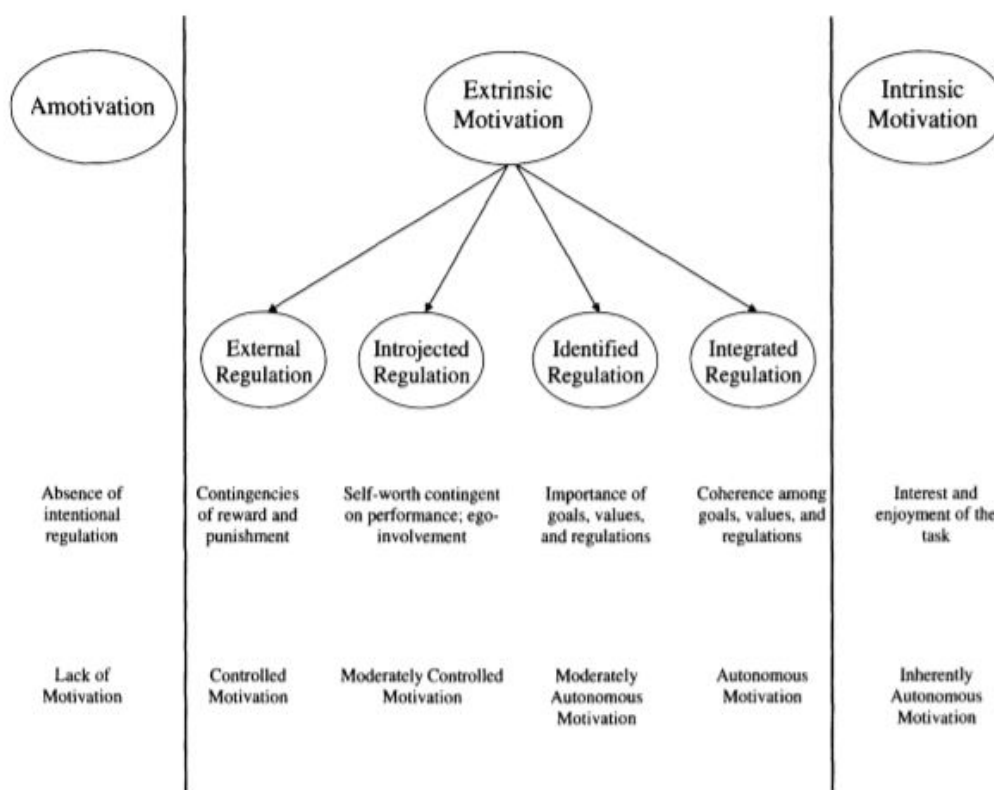| Amotivation	Extrinsic Motivation				Intrinsic Motivation
	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	
Absence of intentional regulation	Contingencies of reward and punishment	Self-worth contingent on performance; ego-involvement	Importance of goals, values, and regulations	Coherence among goals, values, and regulations	Interest and enjoyment of the task
Lack of Motivation	Controlled Motivation	Moderately Controlled Motivation	Moderately Autonomous Motivation	Autonomous Motivation	Inherently Autonomous Motivation

FIGURE 7: Motivation continuum (Gagne & Deci, 2005)

The third type of extrinsic motivation is referred as identified regulation. Identified regulation translates to more autonomous and self-determined motivation. This type of motivation can pertain, if person identifies with the value of a behaviour in order to reach their goals (Gagne & Deci, 2005 pp. 334).

Integrated regulation is truly autonomous form of external motivation, and more self-determined than the other forms (Gagne & Deci, 2005). Integrated regulation and intrinsic motivation have many commonalities, but behaviours that are motivated by integrated regulation are done in order to gain favourable outcomes, and not for the satisfaction of doing the activity for itself (Ryan & Deci, 2000b).

Cognitive Evaluation Theory (CET)

Cognitive Evaluation theory is a controversial sub-theory of SDT. Deci and Ryan argued, that external events e.g. rewards can be looked from informational and controlling aspects. CET portraits how external events influence intrinsic motivation and other internal variables by examining aspects in the latter (Ryan, Mims & Koestner, 1983, pp. 738).

Based on the conceptual work by deCharms and Muir (1968), Deci theorised CET and argued, that a person who intrinsically motivated has an "internal locus

26

of causality". The results of his work indicate, that a change in the locus of causality from internal to external diminishes intrinsic motivation (Rummel & Feinberg, 1988, pp. 148). He also argued that extrinsic rewards affected person's level of self-determination.

According to CET, the informational aspect of external events grants knowledge about persons intrinsic competence in regard to the rewarded activity. If a person feels incompetent, then intrinsic motivation is set to decrease. When feeling competent, the result is opposite and person intrinsic motivation increases. CET also posits, that the controlling aspect of external events is causing the change in the internal locus. According to the theory, when a person is intrinsically motivated but receives extrinsic rewards, the locus moves from internal to external. As a result, the person is not motivated to act in the absence of an immediate external reward. (Rummel & Feinberg, 1988)

2.4.2 Maslow's Hiearchy of Needs

Abraham Maslow is one the most well-known motivation theorists of our time. According to his work, any motivated behaviour should be understood as a form of expression, by which needs may be satisfied. Maslow argues, that motivation theory should be clearly distinguished from behaviour theory, as motivations are not the only factors that direct behaviour. (Maslow, 1943)

Maslow first published his theory of hierarchical needs in 1954, although he had first reported about them in the early 1940's. Maslow postulated that behaviour is directed by psychological and physical needs. He also argued that people follow a general pattern of needs satisfaction in their work (Gawel, 1997).
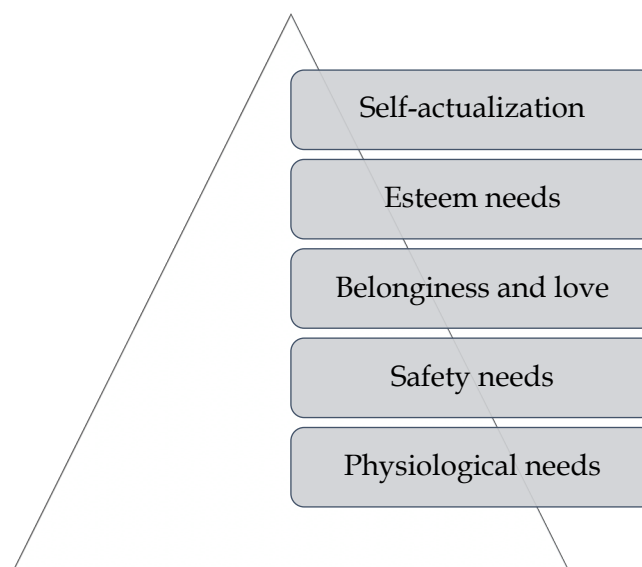

FIGURE 8: A modified Maslow's Hierarchy of Needs (1943)

The Need Theory is traditionally illustrated in the form of a pyramid (see figure 8) in which human needs are classified in to five categories: *psychological needs, safety needs, belonginess and love, esteem needs and self-actualization*. Survival needs reside at the bottom of the pyramid, whereas self-actualization at the top. According to Maslow's theory, psychological health is only possible when these five needs are truly satisfied (Lester, Hvezda Sullivan & Plourde, 1983).

In order for individual to progress towards the top, the underlying needs have to be fulfilled. As an example, before belonginess and love can emerge, individual's need for safety has to be fulfilled. Maslow's theory is related to intrinsic motivation as it highlights persons inner potential.

2.5 Engagement

Engagement has been defined numerous ways in the literature and business practise (Macy & Schneider, 2012), but it has been long plagued by a bickery of its true nature (Schaufeli, 2013). According to Robinson, Perryman and Hayday (2004), there is lack of both academic and empirical research on employee engagement, as majority of the written work on the subject has been produced by consulting firms and other practitioners. In this study, the focus in on examining employee engagement in particular.

Engagement can be used to indicate a persons the level of passion and emotional involvement when occupied on task (Skinner and Belmont, 1993). Engagement has been commonly contradicted with disengagement, in which person has no emotional involvement or absorption at all. Higgins and Scholer (2009, pp. 102) defined engagement as a *"state of being involved, occupied, fully absorbed or engrossed in something"*. Schaufeli (2002) defined the term similarly as a *"positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption"*. Several studies have also defined engagement in accordance to characteristics such as challenge and feedback (O'Brien & Toms, 2008).

Some researchers have proposed that engagement entails person's activities, attitudes and goals (O'Brien & Toms, 2008; Kappelman, 1995). The construct of engagement has been criticised due to its overlap with some prevailing concepts. As an example, organizational commitment shares similar antecedences to engagement, causing the contextual borders of these constructs to be fuzzy (Schaufeli, 2013). Thus, organizational commitment refers to the attitude that an individual has towards their respective employer or an organisation, whereas engagement is not an attitude at all; engagement can describe how invested he or she is in their performance and role (Saks, 2006).

Employee engagement in particular has been enjoying a vast interest among researchers and practitioners during the past years. As stated in chapter 1.2, engaged employees can influence the bottom line of their organisations, e.g. total shareholder return (Macey & Schneider, 2008; Saks, 2006; Bates, 2004). Similar to traditional engagement research, the empirical research on employee engagement has remained somewhat inadequate. Saks (2006) argues, that only two models describe employee engagement accordingly. First of these would be

model by Kahn (1990), in which he examined engagement and disengagement in a work setting. According to his work, three psychological components; meaningfulness, safety and availability determine how engaged or disengaged employees are at work. The other model that Saks identified as relevant stems from the burnout literature. In the model, Maslach, Schaufeli and Leiter (2001) describe how engagement is connected with appropriate workload, and how the gradual decrease of engagement may eventually lead to a burnout. Although both of these theories have their strengths, it has been argued that social exchange theory (SET) may provide a more stable ground to examine employee engagement (Saks, 2006). SET will be discussed in the following subchapter.

Social exchange theory (SET)

Social exchange theory is among the most prevailing perspectives in the domain social psychology, and one of the most significant paradigms for understanding employee behaviour (Cropanzano & Mitchell, 2005). As a theoretical orientation, SET stems from utilitarianism and behaviourism (Cook & Rice, 2003). Its initial roots can be traced back to early 1920's (Cropanzano & Mitchell, 2005).

The basic idea in SET is that obligations, exchange and interaction happen in relationships in which parties are in interdependence with one another. An example here could be employer and employee relationships. If the mutually agreed rules are obeyed by both parties, the exchange relationships can evolve into loyal partnerships (Cropanzano & Mitchell, 2005; Saks, 2006). SET proposes that if employees receive certain economic or socioeconomical resources from their employer, they might repay with high level of engagement (Saks, 2006).

Social exchange theory explains comprehensively, why some employees may become more engaged to their work than others. According to SET, companies that understand the rules of exchange relationships, ergo provide their employees with the right resources, are eventually rewarded with employees with higher level of engagement and more involved work performances.

2.6 Gamification

2.6.1 Definitions and perspectives

Researches have not formed consensus on the definition of "*gamification*" (see table 2). Thus, gamification is a relatively new term that originated in the digital media industry. In general, the term describes an interactive system that aims to motivate and engage users through the activation from game mechanics (Seaborn & Fels, 2014). Gamification has been formally defined as the use of "*game-based mechanics, aesthetics, and game thinking to engage people, motivate action, promote learning, and solve problems*" (Alsawaier, 2018) The most current and formal definition of gamification is the "*use of game design elements within non-game contexts*" (Deterding, Dixon, Khaled & Nacke, 2011, pp. 1; Sailer, Hense, Mayr & Mandl,

2016, pp. 371). Werbach (2014), instead, defines gamification as "*the process of making activities more games-like*". The term gamification only began to attract interest in non-gaming contexts since the beginning 2010's (Zichermann & Cunningham, 2011). Some critics argue that gamification is innately exploitative, questioning whether there is anything special or valuable in the concept (Werbach, 2014). In this study, the following definition is adopted: "*use of game design elements within non-game contexts*" (Deterding, Dixon, Khaled & Nacke, 2011, 1; Sailer, Hense, Mayr & Mandl, 2016, pp. 371).

Definition	Context	Source
"The use of game design elements within non-game contexts"	None-game context	Deterding, Dixon, Khaled & Nacke, (2011), 1; Sailer, Hense, Mayr & Mandl, (2016)
"The process of making activities more games-like"	Gamification as a process	Werbach (2014)
"A process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation"	User perspective	Huotari & Hamari, (2012)
"Gamification is a designed-behavior shift through playful experiences"	Behaviorism	Reiners and Wood, (2015)

TABLE 2: Gamification: definitions and perspectives

If a closer look is given to the previous definition, four important components can be extracted. These components are vital when addressing the distinction between gamification, and other related concepts. (Sailer et al., 2013)

1. Game
2. Element
3. Design
4. Non-game context

The "game" component is commonly used to describe a setting where there is an achievable goal, guiding rules and a feedback system. Participation to such as activity is voluntary. The term "element" makes the distinction between gamification and traditional games more evident. The "design" component aligns the use of the typical design of games instead of game machinery. The term "non-game context "highlights the borders of the definition. As stated earlier in chapter 1., gamification can be leveraged in various contexts. (Sailer et al., 2013)

Gamification can inspire desired behaviour through rewarding desired employee actions by leading to more rewarding outcomes, in contrast to those in non-gamified contexts (Robson, Plangger, Kietzmann, McGarthy & Pitt, 2015). According to Duhigg (2012), the desired outcomes can become behavioural

processes through motivational mechanisms of reinforcements. These patterns in behaviour, or habits, are formed through suggestions, that evoke behaviours that are rewarded. The formation of habits is useful, as they consume less cognitive resources. Positive habits can be directed and applied to benefit the company's interest. (Robson et. al, 2015)

The *elements* of game design are fundamental building blocks of gamification applications (Deterding et al., 2011; Sailer et. al., 2016, pp. 372). Other names used to describe game elements are known to be "ingredients" or "atoms". Game elements describe the specific components of games, that can be leveraged in gamified solutions (Werbach & Hunter 2012; Sailer et al., 2013). Game elements can be further divided in to three different levels; *dynamics, mechanics* and *components* (Werbach & Hunter, 2012; Sailer et al., 2013).

There is no universal understanding of game-design elements, which makes constituting gamification problematic (Werbach, 2014). Many researchers have composed lists of recurring game elements, and they entail as much similarities as differences. What is common in such listings is the so called "PBL thriad", which translates into three, highly popular game design elements: *points, badges and leadersbords* (Werbach & Hunter, 2012; Sailer, et al, 2017). Next, an exemplary typology of game elements will be overviewed;

1. *Points* are a fundamental part of multitude of games; Finnish throwing game Mölkky or the popular Candy Crush online game may only serve as few examples here. Some game advocates consider points as definite requirements for every gamified application (Zichermann & Cunningham, 2011; Alsawaier, 2018) Points are usually given as rewards for a successful completion of given tasks in the game environment (Werbach & Hunter, 2012), but they can have other meanings as well. Points give players continuous feedback and allow players performance to be measured (Sailer et a., 2013). The sole dependency on points in game-environments has also been critized by some scholars. (Alsawaier, 2018)

2. *Badges* are visual illustrations of achievements in the game environment (Werbach & Hunter 2012). The history of badges goes back to 1911, when Boy Scouts of America began to use them as motivators (Alsawaier 2018). Badges can have several purposes, but they usually serve as merits, status symbols or goals. Thus, the qualifications to players to achieve them should be made clear in the latter (Werbach & Hunter 2012; Zichermann & Cunningham, 2011). Like points, badges also indicate players performance during or after the game (Sailer et al., 2017; Alsawaier, 2018). The satisfactory effect in receiving badges is due to the public announcement of a players' status in the game environment (Alsawaier et al., 2017). According to Richter, Raban and Rafaeli (2015), badges can reinforce players self-competence and self-efficacy.

3. *Leaderboards* serve as ranking lists, as they rate players against certain benchmarks in game environments (Sailer et al., 2017). At a glance, leaderbords showcase how players are performing in a relation to another,

and which one may be leading. The evidence of the motivational effect of leaderbords is yet insufficient (Burguillo, 2010).

4. *Teammates* may initiate competition, cooperation or collision within a game (Kapp, 2012; Sailer et al., 2017). Cooperation can be reinforced and competition restricted by building teams, that work towards a common objective (Werbach & Hunter, 2012).

5. *Performance graphs* provide information about individual players performance in contrast to their past performance. Performance graphs are similar to leaderbords, but the lack on comparison between players distinguishes them as game elements. (Sailer et al., 2013; Sailer et al., 2017)

Gamification has a connection to various psychological theories and especially to behaviourism. Behaviourism is an approach to psychology, that strives to understand and explain all behaviour and various psychological events (Alsawaier, 2018). Certain principles in behaviourism are parallel to the motivational mechanisms of game elements, as according to behaviourism, certain behaviours can be conditioned by rewards (Alsawaier, 2018). Points, badges and leaderboards have a similar purpose in gamified environments.

2.6.2   Player typologies

Understanding different player types and styles has become important to both academics and business practitioners alike. Players are the most vital part of gamified environments, as they are the individuals or employees that participate in the game (Robson et al., 2016). As with game elements, several classifications of different player types have been proposed within gamification contexts. In this section, two suitable typologies will be overviewed; User Type Hexad by Marczewski (2016) and player type matrix by Robson et al., (2016).

The User Types Hexad by Marczewski (2016) differs from most models, as it doesn't classify different player types based on their behaviour in the game. In his model (see figure 9), the user types vary in the degree to which players are motivated by the basic forms of motivation: extrinsic and intrinsic. The Hexad model relies closely to Self-Determination Theory, as three forms intrinsic motivation (relatedness, autonomy and competence) are illustrated in the model. (Tondello, Wehbe, Diamond, Busch Marczweski & Nacke, 2016)

In the model, each type of player is addressed with a primary source of intrinsic or extrinsic motivation. It is worthy of mention, that the proposed user types and the matching motivational triggers beneath them do slightly overlap with one another. Players are rarely motivated by one motivator only, and it is expected that players may to some degree, signal features from other uses types as well (Tondello et al., 2016).
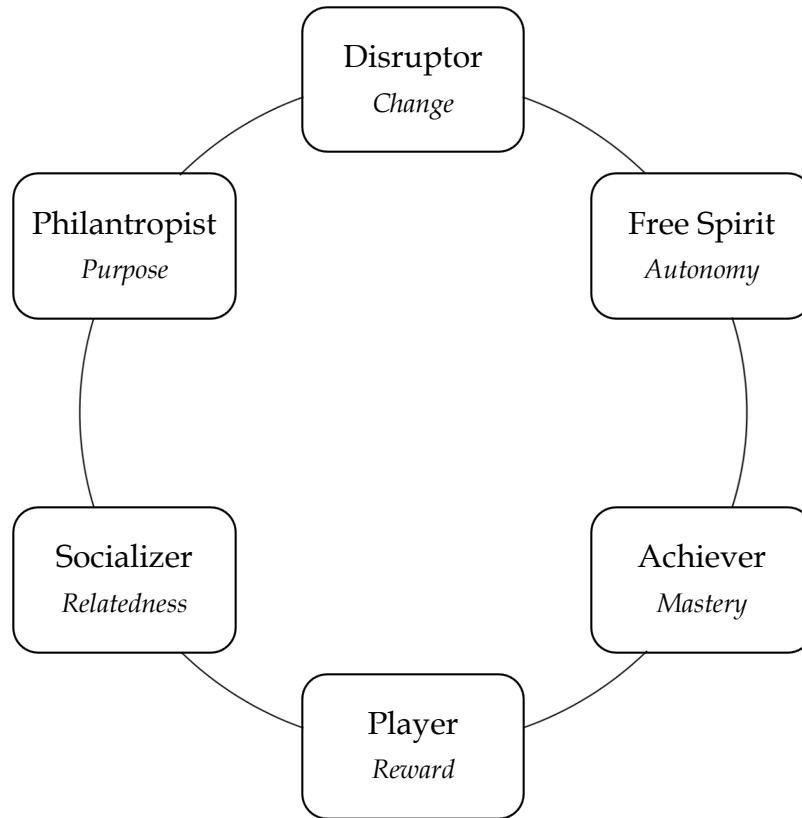
FIGURE 9: A modified Gamification User Types Hexad (Marczewski, 2016)

As the figure above shows, *Disruptors* are motivated by change. This user type strives to cause disruption in the game environment and push the boundaries of the game. The driving motivator of *Free Spirits* is autonomy. Free spirits focus on exploring and expressing themselves in the game environment. *Achievers* motivate themselves through competence. Achievers tend to focus on tackling challenges and progress. *Players* are motivated primarily by extrinsic rewards. They are focused on gaining recognition and act because of external strains. *Socializers* seek connection with other players. Relatedness is their primary source of motivation. *Philanthropists* seek purpose within the game, which motivates them to act. This user type is altruistic in nature and does not focus on rewards. (Tondello et al., 2016)

Robson et al., (2016) argue that all player types in gamified experiences can fit in to their four-piece model, that distinguishes four player types: *strivers, scholars, slayers and socialites* (see figure 10). The model has many similarities to the Marczewski's model explained below, but it is simpler and focused on describing player behaviour rather than players motivation to play. According to their model, the four distinguished player types vary in two trajectories: *player competitiveness and player orientation.*
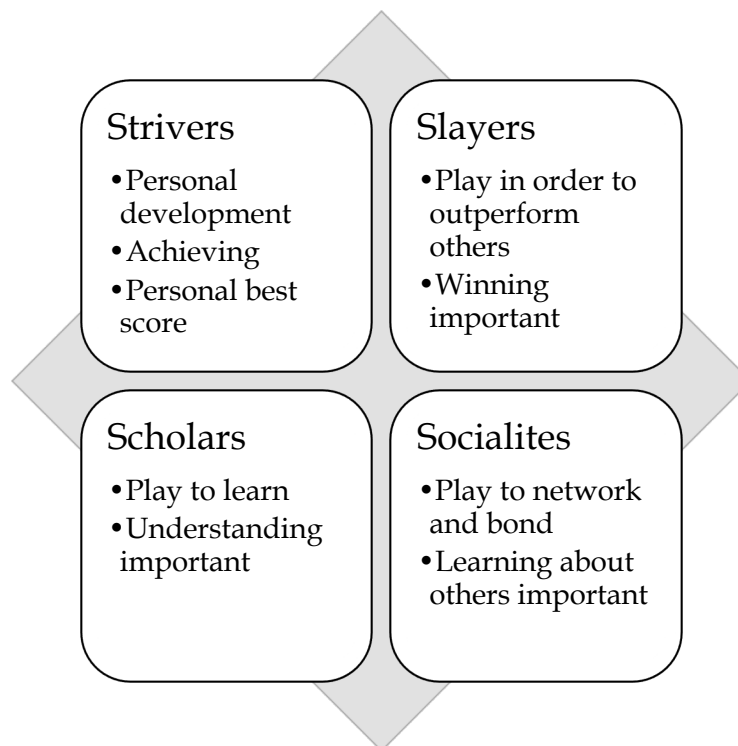
FIGURE 10: A modified player type matrix (Robson et al., 2016)

According to Robson et al., (2016), *Strivers* are highly competitive and focused personal development, achievement, and the personal best score in the gamified environment. Strivers are most competitive and self-oriented type of player according to this typology. Strivers have similar features as Achievers and Disrupters in the Marczewski's (2016) Hexad model. Slayers instead participate in games in order to outperform others and win. They focus on being better than other players and are almost as competitive as Strivers. Slayers are more other-oriented than self-oriented. *Scholars* engage themselves in games in order to learn and understand games and the game-environment. Scholars are highly self-oriented, but they are not very competitive. Scholars have similar features to Philanthropists in the Marczewski's model (2016), as this type of player is focused on finding meanings rather than acquiring extrinsic rewards. *Socialites* play in order to bond, communicate and network with other players in the game environment. For Socialites, it is important to learn about other players. This player type is other-oriented and not competitive. Socialites are similar to Socializers in the Marczewski's model (2016), as both player types seek social connection.

2.6.3   Gamification from an SDT-perspective

When looking gamification from an SDT-perspective, it can be seen that various types of motivation direct player behaviour (vanRoy & Zaman, 2017). Self-determination theory can be used as a theoretical framework to understand the psychological effects of gamification and game design elements, along with other

prominent motivation theories (vanRoy & Zaman, 2017). The connection between SDT and gamification has been widely acknowledged in the gamification research, and it has been focused on three needs for intrinsic motivation: *relatedness*, *competence* and *autonomy*.

Rewards are commonly used motivators in gamified environments. For some instances, it may be useful to pick game elements that don't reinforce extrinsic motivation. According to Nicholson (2012), SDT serves as a roadmap on how intrinsic motivation can be encouraged in gamification. Nicholson based his theoretical framework in the idea of "meaningful gamification" and the theoretical foundation of SDT. According to the results of his study, players need to be empowered to create within the gamification environment, and players must have possibilities to lean and demonstrate mastery in a variety of ways. He also noted, that one gamified environment won't be appropriate for every player, as all individuals are different.

Several game designers have succeeded in fostering *relatedness* by bringing meaningful stories to the game environment (Groh, 2012, pp. 42). An example of a meaningful story may be that if reaching a goal in the game, the player saves a species from extinction or similar. Understanding the need for relatedness and personal goals from the game designers part is important to understand, so that player consider playing meaningful. (Groh, 2012)

Competence can be fostered in gamified environment by providing intriguing challenges. Keeping the level of difficultness in balance and having clear and structured goals can keep the player from feeling incompetence while playing. Players feeling of *autonomy* can be fostered by making game a voluntary activity, which the commonly are. If employees feel that they controlled with rewards, the game may become de-motivating experience for the player. (Groh, 2012).

Scholars have also found several other interfaces between gamification and SDT. Mekler, Brühlmann, Tuch and Opwis (2017) used SDT to examine one triad of game design elements: points, levels and leaderboards (Werbach & Hunter, 2012). According to their results, the game design elements in question serve as informational feedback, encouraging intrinsic motivation in the user (Nacke & Deterding 2017).

According to the work by vanRoy and Zaman (2019), game design elements can be used to reinforce players autonomy and competence. Wolf, Weiger and Hammerschmidt (2018) posited that gamified experiences support active service usage through autonomous and controlled motivation. In the following chapter, gamification shall be linked to motivation engagement.

2.7 Connecting gamification to motivation and engagement

The concepts of gamification, motivation and engagement relate to another in various levels. As stated earlier, motivation and engagement are closely related concepts due to their intersection in areas of intrinsic motivation and cognitive engagement (Alsawaier et al., 2018). For many, joining games can be an intense

experience as it penetrates both motivation and engagement (Deterding, 2012, pp. 3). According to the contribution by Sailer et al., (2013) gamification can indeed, foster motivation in various circumstances.

Xu (2011) postulated, that gamification can act as a facilitator to extrinsic motivation, which can in turn, motivate engagement. Several game elements have also been linked directly to known motivational mechanisms, such as points and badges (Sailer et al., 2013). Some studies have showed, that intrinsic motivation, engagement and motivation can decrease, when players are pressured to use game features (Alsawaier 2018; Hanus & Fox, 2015).

Indeed, many have investigated the relationship between certain game elements and motivation (as does this study). But, many of them have been conducted in pedagogical contexts, more specifically, by observing students. Many of these empirical studies tend to suggest, that gamification elements affect positively on students motivation, engagement, motivation, and performance by encouraging collaboration and feedback (Alsawaier, 2018; Seaborn & Fels, 2015). According to the work by Seaborn & Fels (2015), majority of the studies they reviewed indicated, that motivation and engagement increase by the introduction of game elements. At the same time, a substantial body of studies have traced no connection between game elements and student motivation and engagement (Alsawaier, 2018; Hanus & Fox, 2015). It can be argued, that evaluating mature people and younger people has to have some fundamental differences, as students may be still be evolving psychologically. The nature of everyday work of students and Sales Consultants differs essentially, and therefore no clear-cut judgements can be made based on these findings. As emphasised in earlier chapters, gamification and its linkage to motivation and engagement should be further explored, and especially in specific contexts.

According to Alsawaier (2018, pp. 71), vast amount of evidence suggests that the effective use of gamification elements has a straight connection to the basic psychological human needs, and that many of these needs can be linked to Self-Determination Theory. It can be concluded, that the relationship between gamification, motivation and engagement is correlating in many aspects, but the dynamics between these constructs remain unexplored to an extent.

2.8   Preliminary framework

The concepts that constitute the preliminary framework of this study are gamified CRM experience, motivation, employee engagement and productivity. The framework is presented in figure 11. In the previous chapters we have defined the concepts of gamification, motivation and engagement, and demonstrated how they are connected to one another. It was acknowledged that conceptually, motivation and engagement are closely related due to their crossing in intrinsic motivation and cognitive engagement. Gamification and its various applications on the other hand have the possibility to penetrate motivation and engagement in various contexts, which in this study is CRM system gamification. In conclusion, the empirical evidence reviewed in previous chapters suggests that

gamification has the potential to increase motivation and engagement, but there is lack of empirical evidence to support this understanding. The fourth concept in this framework, productivity, is expected to be affected by the combination of motivation and engagement, that CRM system gamification aims to increase.

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          ┌─────────────────────┐
          │    Gamified CRM     │
          │     experience      │
          └─────────────────────┘
                     │
          ┌──────────┴──────────┐
  ┌───────────────┐      ┌───────────────┐
  │   Employee    │      │   Motivation  │
  │  engagement   │      │               │
  └───────────────┘      └───────────────┘
              ↓↓

            Productivity
```
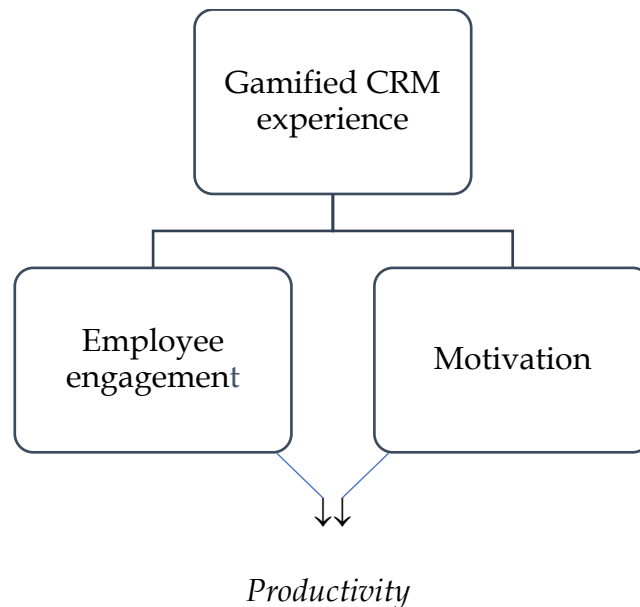
FIGURE 11: Preliminary framework

In this framework, gamified CRM experience is examined holistically, and as an enabler for motivation and engagement. Motivation is examined under two lenses: intrinsic and extrinsic motivation, as these forms represent the two broad classes of human motivation. In addition, we examine motivation in regard specific game-design elements. Motivation is linked to productivity, as a certain level of motivation can affect the quality work, and make employees excel in what they do. Engagement is examined through the lens of employee engagement in particular, as it fits to the purpose of this study. Engaged employees can affect positively to the bottom line of their organisation, which underlines the link between employee engagement and productivity. And as stated earlier, the final part of the framework proposes that productivity is affected by the dual increase of motivation and employee engagement, that gamified experience aims to promote.

3 METHODOLOGY

In this division, the choices regarding the research methodology will be explained. This includes examination of the case study as a research strategy and overview of the data collection method. Additionally, the case company will be introduced, and the aim of this research shall be revisited.

3.1 Case study as a research strategy

The case study as a research strategy aims to comprehend dynamics that naturally occur within certain real-life contexts and settings (Eisenhardt, 1989). According to Denscombe (2014), to use a case study approach is a strategic decision, which allows the researcher to address the specific needs of a situation. One case study can entail several cases, and multiple levels of analysis. The typical data collection methods of case studies may include archives, surveys and interviews. The collected evidence can be qualitative, quantitative or a combination of both. (Eisenhardt, 1989)

With single-case studies, the existence of phenomenon can be amply described (Siggelkow, 2007). Case study approach could be contrasted with any mass study, as case studies usually investigate one instance of a subject that is under observation (Denscombe, 2014). In some cases, the researcher may use a few or more instances; (as in this study) the focus is on gamification, motivation and engagement, and the interesting interplay between these issues. Thus, a general characteristic of a case study is that the focus of the research is quite narrow.

As stated earlier, a research utilizing the case study approach can combine research methods and use various types of data (Denscombe, 2014). This type of setting allows the researcher to get a holistic view on whatever the phenomenon is investigated and therefore, a more in depth understanding of it.

Choosing a case study approach may arouse criticism, and it is usually underlining the generalizability of research findings (Siggelkow, 2007). In fact, the critics mirror the key argument of generalization in social research (Denscombe, 2014). According to Denscombe (2014), findings from case studies should not be treated as the final truths, but rather than individual experiments. This within time, would help to ground theory. Case studies are often seen as exploratory starting points for the expansion of theory. Followingly, their findings can be generalized from this analytics standpoint.

In this exploratory case study, the focus is on examining a single case. The case study approach is appropriate for relatively small-scale studies, and Master's Thesis is thought to fit well in to this picture. According to Eisenhardt (1989), case studies may be the best approach in bridging the gap between prosperous qualitative evidence and the prevailing deductive research. This partly explains its popularity as a research strategy.

The purpose of this study is to investigate the effects of CRM gamification on Sales Consultants motivation to use CRM and its impact on engagement.

Additionally, gamifications' influence on Sales Consultants productivity is evaluated. Case study approach is seen as an appropriate method for this study, as the gamification experiment has a clear start and ending point. For this study, the qualitative research strategy is chosen, as it is seen as ideal approach to investigate concepts that are multifaceted, even tacit in nature. Additionally, the amount of empirical research on gamified CRM experiments in sales functions is scarce.

3.1.1   Case company selection

In this section, the criteria for the selection of the case company will be described and justified. According to Patton (2002), the case company selection is strategic decision, that should be in accordance to the investigated phenomenon. Ultimately, the case company was selected based on the requirements of this study. It is worthy to be mentioned, that the researcher had worked for the company in the relevant past.

The case company is known for its innovativeness in the environmental services market both in Finland and Sweden. When the company was initially consulted about the project, it came out that something similar regarding gamification had been considered. A mutual understanding of the benefits of the project were acknowledged, and the project proceeded.

Another crucial starting point was that the case company was using a CRM system, that had its own gamification platform within. Taking the platform in to use did not need extensive configuration, and the company's license included this extension. The gamification platform seemed to be easy to manage and adjustable to various scenarios. This made the research process smoother from start to finish.

The case company has an intensive and active sales force, that is scattered across Finland to several units. The key informants in this study were all located in a specific area in Southern Finland. They were part of a same sales team and had the same Manager. The participants were initially selected from the same team due to the constraints of this study. As stated earlier, this study is a small-scale Master's Thesis, that is limited by length and time constraints. Additionally, to have participants from different areas was thought to make the game design more complex. In the end, it was evident that this would have not been the case. When looking back, having participants from the same geographical area presents just another choice in the research process, and would have not made it more complex.

Case selection from the standpoint of theory building has been acknowledged as challenging. According to Eisenhardt and Graebner (2007) it is faulty to assume that cases should be representatives of given population, as it commonly is in large-scale studies. The writers suggest, that the best way to tackle this challenge is to make clear the purpose of the research, which is theory building instead of its testing. Siggelkow (2007 pp. 21) argues that cases can help to sharpen the current theory, by filling out the gaps that were pointed. He also stated that although building theory is important, the focus should be in the attempt of

making the world more understandable. The statement by Siggelkow resonates with the purpose of this paper as well. To conclude; the purpose of this study is to investigate the effects of CRM gamification on Sales Consultants motivation to use CRM and its impact on engagement and productivity in the case company.

3.2   Data Collection and Examination

In this section the data collection method and the examination of qualitative data will be precisely described. Data examination and the chosen data collection techniques stand as a crucial piece of the research process, as they relate strongly to the validity and reliability of the research findings. Yin (1994) describes case studies as prosperous empirical depictions, that are commonly based on multiple origins of data. This qualitative research was carried out by using semi-structured theme interviews as a primary source of data.

In this case, semi-structured theme interviews as a data collection method was the most appropriate mean to capture the experiences of the participants. The interviews were conducted with key informants in Finnish and they took place in April 2019. All five interviews were completed via Skype, and the mean duration was 26 minutes. The interviews were shorter than expected, but relatively rich in content.

Interviews are often the primary data collection method for qualitative researchers. Problems and bias may occur, when the informant's knowledge is coming from an image-conscious place. According to Eisenhard and Gaebner (2007) the bias in interview data can be best mitigated by data collection methods that limit its formulation. To address this issue, the informants varied from background, few of them being experienced in sales, and some of them less in years. Additionally, few of the informants had started working for the company in less than a year ago.

The interviews were recorded so that the accuracy of responses could be verified. The recorded interviews were transcribed in to wording in separate documents. Data examination process continued with intensive reading phase, keeping the focus on the theoretical framework. The research questions were frequently revisited.

The information in wording was later coded and allocated under certain themes. This common interpretation technique was conducted in the hopes of more streamlined analysis process. The translation from Finnish to English was done carefully at one stage, and only to the sentences, that were selected to be exhibited in Results (Chapter 4). This decision was made in order to limit any misinterpretations that may occur in translation processes.

Delightfully, saturation, regularities and several interesting realizations were found from the responses of key informants. Therefore, we may make the loose assumption that the question framework was suitable for the case. In this case study, there was no variation on sources of data, as the interviewees represent one (case) company and the primary data source was theme interviews.

Sales Consultant	Age	Years (within Sales)	Years (in the case company)
SC1	29	4	2
SC2	37	10	5
SC3	27	4	4
SC4	30	5	1
SC5	36	10	1

TABLE 3: Background information of the key informants

3.3 Semi-structured theme interviews

When conducting empirical research, the given source material gives the final answers. Interviews are a profound method to gather rich, empirical data, especially when the subject of interest is highly infrequent in nature (Eisenhardt & Grabner, 2007). Interviews can be defined as conversations, but unlike in regular ones, the destination has been designated beforehand.

In interviews, the communication is usually based on words, meanings and interpretations. Without exception, the interviewees responses reflect the presence of the interviewer, and her way of asking questions. The actions of the interviewer during the session has a great impact on over all success of interview. (Hirsijärvi & Hurme 2001, pp. 48–49)

Theme interviews are characteristically closer to unstructured interviews than structured interviews. In semi-structured interviews, the layout and order of questions is not certain (as in structured interviews). Thus, they are less informal as deep interviews. All the themes and topics are same for the informants, but the questions may be asked in slightly different way and order. (Tuomi & Sarajärvi, 2009)

The purpose of theme inteviews is to receive meaningful answers from the key informants. These answers are thought to shed a light to the initial research objectives and questions (Tuomi & Sarajärvi 2009, pp. 74–75). Informants can speak relatively freely, and therefore the source data can be thought to represent informant's speech in itself. Thus, the interview framework based on themes quarantees that similar issues have been talked about with all the respondents.

3.4 Microsoft Dynamics 365 Gamification

Microsoft has developed their own gamification solution, that can be easily configured to the Dynamics 365 CRM environment. The data flows between CRM and gamification portal, and this function along with the set KPI's (Key Performance Indicator) form the backbone of the gamified solution.

The game design was set to be simple. The game-elements under investigation were points and a leaderbord, which can both seen in figure 12. Due to a limited number of players participating, no teams were used, ergo players competed against each other. The game lasted for 28 days, starting at 4th of March to 31st March in 2019. Due to a number of constraints, three default KPI's were selected to be used measure players performance during the game. Namely, these were following: sales opportunities created, (sales) meetings created, and revenue won. KPI's were selected with the case company, and every KPI's was configurated to a certain amount of points. The latter was also done in agreement with the case company and participating Sales Consultants, in order for them to be adequate and meaningful.

Points per KPI were configured as follows;

1 à Sales opportunity created → *4 points*

1 à Meeting created → *3 points*

1 à Revenue won → *2 points*

For every sales opportunity, the player is rewarded with four points. For every created appointment (meeting with a client) the player is rewarded with three points. For a revenue won, the player is rewarded with two points.

Revenue is often awarded in regard to the monetary value of the deal, but in this game, points were based on the amount of 'transactions', in order to make the design straightforward, and the performance easy to follow. The philosophy behind the design was based on the idea, that is more important to increase Sales Consultants activity before revenue. In other words, sales opportunities and meetings were treated more valuable than the revenue won, and therefore rewarded more generously with points. The appointed points were small numbers in order to make the game more interesting competition-wise. As stated earlier, an extrinsic reward was offered to a Sales Consultant with highest score of points at the end of the game. The results and further analysis of the game experience and game design elements are provided in the following chapters (4 and 5).

FIGURE 12: Leaderbord of Microsoft Dynamics CRM Gamification

In the following chapter, the results of this study will be presented and comprehensively analysed in accordance to theory and the chosen research themes; gamification, motivation and engagement.

4 RESULTS

In this section, the results of this case will be presented. The results are allocated based on research themes: *CRM system, gamification, motivation and engagement.* The questions and results in the first section relate to general issues in CRM systems usage, e.g. why participants use the system in the first place, and how often they use it. In the second theme, questions and results relate specifically to the gamified experience, that took place in March 2019. The third theme regards motivation, in which the gamified experience is looked from the perspectives of intrinsic and extrinsic motivation. The fourth theme entails questions and results that relate players level of engagement, emotions and participation. The interview framework can be found in the appendix (pp. 66).

CRM system

The purpose of this theme was to gather information about Sales Consultants relationship with the current CRM system, how they use it, and which functionalities they tend to use the most. In addition, informants were asked to identify, why they use the system in the first place, and what are the key benefits of using it in their everyday work.

All Sales Consultants stated, that CRM helps to keep staying on track of all of their ongoing cases. In addition, CRM was thought to be helpful in managing their time and remembering all the appropriate procedures that have to happen in order to move the customer along the sales pipeline. Most also stated, that CRM is a tool to lead and manage one's own work.

> Why do I use it? Probably because I'm told to! Well, I use it to stay on track on my own job e.g. to follow my sales and open leads. And more and more I'm using it as a management tool for my work. (SC1)

> Well, it is a tool to manage your job, and a tool for sales and reporting. (SC2)

When asked about which CRM functions they use the most, creating sales opportunities was one of the most common tabs to open. The frequency of system usage varied between informants. In most cases, CRM was used every day, some used in couple times a week. Thus, the system usage was also dependent on the current workload and schedule.

> There are weeks when use it daily, but sometimes I only go there once a week, so it varies a lot. If there is lot of tight schedules and specific, agreed procedures, then I always go to CRM right after the meeting. Otherwise, I might forget to do it. (SC3)

> I would like to say I use it daily, but at least couple times a week. (SC2)

> Every day…virtually all the time. (SC5)

Sales Consultants were them asked to identify, how CRM actually supports them in their everyday work. They had similar responses, although content varied in detail. Common nominators were that CRM shows Sales Consultants what has been agreed upon last time with the client, but it also helps in anticipating their own monthly sales. In addition, CRM presents for them clearly, whether the monthly objectives are met or not.

> It helps a lot, as inside the sales opportunity remains the information of the person you have associated with, the phone number, e-mail, and of course, you get a clear picture on what is coming for the next month…and you can see whether the sales pipeline is fit…it is just clear maths, you have to have certain amount of offers out in order to reach your budget. (SC3)

> It is one channel to get leads…but it also directs my work through set objectives. (SC2)

According to Technology Acceptance Model, user acceptance depends on users motivation, that is influenced by the actual system features and capabilities (Chuttur, 2009). Therefore, key informants were asked to identify whether they find some CRM features or procedures affecting their work negatively e.g. making working slower or more complex. The purpose of this questions was to examine, whether the system has some built in inefficiencies, that may affect the system use from a Sales Consultants point of view, and as a result, effect their motivation as TAM postulates. Some inconveniencies were identified, but the responses didn't reveal any specific CRM features.

> I think it has all the relevant pieces as you move the lead across the pipeline to either won or lost…only thing I can think of is that it could work faster at workstations. I've seen a lot of differences in the use, depending on where you work at, at home it works the best. (SC3)

> If it worked like it supposed to, then not…there has been quite a lot of challenges lately. (SC2)

> Some of the cases are more suitable to CRM than others, as they have certain logic…but often the stuff comes from out of nowhere, and you have to react to it fast. Entering them to CRM is a bit unnecessary and makes it slower…there should be a 'drainer' section for cases like that, where you could just throw them. (SC5)

Gamification

In this section, the questions were focused on examining issues, that were related to the actual CRM system gamification. Informants were asked several questions, including what was their opinion about the intensified competition that came within the experience, and whether they enjoyed the gamified experience.

When asked about the possibility to track personal score and see own performance in comparison to other Sales Consultants in real time, informants reacted positively. In addition, almost everyone considered them either highly or moderately competitive.

> I think it was good fun, it makes you remember all the tiny procedures, especially if the points were given from all the system activities. I went to check the (leaderbord) daily, it certainly gave you that extra energy to go and update (CRM)…at least I've noticed it clearly. (SC1)

> Personally, I am a very competitive person, so I thought it was a great thing. In my opinion something similar could be in use in a team continuously…e.g. points could be followed in a monthly base…I think a little competition like that is just healthy. (SC3)

> …it was more like a nice to know type of thing on a weekly basis. (SC5)

During the game, the situation was changing on a weekly basis. This was a favourable from a game design perspective, as it is not appropriate for one player to get ahead of others, and followingly, cause other players to loose interest. As anticipated, the tightness of the competition was considered as a good thing.

> Well of course, it made you feel like damn I really have to start pushing those opportunities to CRM and such, but at the same time I knew that I would get stuff in there over time, so I wasn't really stressed. (SC3)

According to Hamari et al., (2014) studies have pointed out that increased competition may have a negative effects in gamification contexts, and it is something that should be paid attention to. Sales Consultants were asked about the highlighted competitive situation that relates to gamification, and how they perceived it.

> There is nothing (upsetting) about competition…but if there is a too big difference to the other player it weighs you down…you have to think like, you do what you normally do, and everything else just adds up to it…you cant just make up stuff (leads etc.) the result just tells you, that you wasn't active enough in creating new sales opportunities or such. (SC1)

> …I think it is good that we had this competition, as everyone of us are to some extent competitive. It made the competition tight, which I think was a good thing. (SC3)

Key informants were then asked, whether they had any strategy to collecting points. As shown in chapter 3.4, points were configured to the selected KPI's unequally (*sales opportunity: 4p; meeting: 3p; revenue won: 2p*), that was based on a mutual agreement. Sales Consultants were quite clear on stating, that there was no strategic thinking involved in collecting points. Instead, they focused on updating CRM more frequently. Records were also often done right after a certain activity had taken place.

> …maybe it was just that you remembered to update (CRM) immediately, because sometimes I might do an offer, but I don't enter it CRM straight away…but during the game I did go immediately, in order to get the points. (SC3)

> Not really, you just registered the meetings, leads, and won revenues as they came. Sometimes I have open cases "stored" in my e-mail which I haven't entered to CRM…this competition caused me to enter them straight away. (SC1)

One of the fundamental goals of gamification is to promote learning (Kapp, 2012). Therefore, it is relevant to examine learning in the CRM gamification context as well. Key informants were asked, whether they learned anything new from their CRM System, or anything in general. According to Sales Consultants who had been working in the case company for several years, nothing new was learnt, or not at least from system perspective. According to a Sales Consultant who had started working in the case company in a less than a year ago, something was learnt.

> …you learnt to enter those meetings (in a right way)…and you learned to focus on relevant matters. (SC4)

> Not really from system perspective…but maybe that regularity (is needed) so that you enter the sales opportunities in an earlier stage…and not after the sale has been confirmed. (SC2)

Yang (2017) argues, that players who don't enjoy gamification do seldom try it again. When asked about whether participants considered gamification entertaining, answers varied from neutral to enjoyment in some level. In several responses, the entertainment or enjoyment aspect related to the competition that came within. Several also stated, that gamification gave something fun and different to discuss about.

> To some level yes. I think the entertainment aspect stemmed from the competition itself. (SC3)

> In some ways yes, cause you went to check the (leaderbord) every day…maybe it tightened the group a little bit, as there was something to joke about…maybe that was the entertainment aspect in this. (SC1)

Motivation

As stated earlier, this section focuses on examining the game experience from a motivation standpoint, and especially from the perspectives of intrinsic and extrinsic forms of motivation. The section entailed few generic questions about the Sales Consultants motivation to work and use CRM system. Some of questions examined the relationship between extrinsic rewards and intrinsic motivation, and some focus on examining two specific game design elements: points and a leaderbord.

When asked a general question about what motivated Sales Consultants in their work, participants had many regularities in their responses. In conclusion, Sales Consultants responses resonated both intrinsic and extrinsic forms of motivation. The most important motivators were *salary* (extrinsic), *autonomous nature of the work* (intrinsic) and *the possibility to solve customers' problems* (intrinsic).

> …the salary model is one (important) of course. But maybe what motivates as well is that I like to work with people, and that you may find a solution to somebody else's problem, and that way help them in their daily work. Those are probably the biggest.

> And, you also have the freedom to do your own schedule. I also find it motivating, that you have the possibility to (set goals) and succeed, as that is not possible in every job. (SC1)

> I think all starts from (the fact) that I like meeting new people and solve customer's problems…and, to have the smile to their face when something has been started and things start to change. And of course, you do this for the salary as well, but that is somethings that just comes along with it…sometimes you do get shouted to your face by a customer, and if you can solve those issues with calmness and the customer is satisfied at the end…those are the victories in this job. (SC3)

The first question in this theme was followed by another rather general question, in which Sales Consultants were asked to identify, what made the participate to the experiment. Joining a game should be a voluntary activity, so that players feeling of autonomy won't be affected.

This question was set to examine players intrinsic motivation in particular. As explained in chapter 2.5.1, intrinsic motivation drives the desire for exploration, challenges and learning (Ryan & Deci, 2000), something that participating to a gamified CRM experiment may represent as well. Sales Consultants responses reflected equally both intrinsic and extrinsic forms of motivation.

> Well I guess the more CRM is investigated…the more it benefits everyone. (SC5)

> I think this was rather interesting, and we've used a similar angle before…especially when coming from a different kind of a company and the CRM is new…although it's been in use for several years. I think it was interesting to see how people take it. (SC1)

> Probably competitiveness was the biggest thing…that was the main point. (SC3)

Next, sales Consultants were asked to identify, what influenced them in collecting points. The purpose of this questions was to examine points' ability to foster motivation, but to also examine and contrast extrinsic and intrinsic forms of motivation. According to results, Sales Consultants motivation to collect points resided somewhere between extrinsic and intrinsic motivation. Thus, it naturally varied between key informants. In general, points were considered as rather pleasant and clear way to track performance.

> …maybe it was that reward, but it wasn't the top reason…I think it was just fun to see how the rankings rise and I think it was fun to follow that. Me and (SC3) were at first right there at the bottom, but then it turned upside down. And as the (situation) lived, it was interesting…and behind every point is some kind of case, it made you think what kind of good cases others may have…especially when there was some of our new (SC's) it was interesting to see that do they get new clients. (SC1)

> I guess you just wanted to win the (competition)…and of course it was good that this kind of a game took place, as you used CRM more often than you normally do…as you entered some of the smaller sales opportunities (to CRM) as well. (SC3)

> I wasn't thinking about the prize really…but as you saw where you were located in the leaderbord, you didn't want to be the last one there. (SC2)

Motivation research has suggested, that some game design elements can be linked to certain motivation mechanisms (Sailer et al., 2013). Werbach and Hunter (2012) in particular argue, that the empirical evidence regarding leaderbords ability to foster motivation is mixed. Therefore, one of the questions regarded the leaderbord, as it was one of the two game design elements examined in this study.

As stated earlier, leaderbords function in the form of ranking lists, as they rate players against certain benchmarks (Sailer et al., 2017). In this case, the benchmarks were *created sales opportunities, revenue won* and *set up meetings*. In other words, leaderbords showcase how players are performing in a relation to another, and which one may be leading. When asked about key informant's thoughts on them, they perceived the leaderbord as a clear way to see where the game was at. Most Sales Consultants also checked it regularly, some daily and some on a weekly basis.

> I did check relatively often through out competition. (SC3)

> It was clear…quite raw in a way, I mean there you see. (SC1)

A general finding in motivation studies has been, that tangible rewards can undermine intrinsic motivation. According to deMarcos, Dominiguez, Saenz-de-Navarrete and Pages (2014), offering a tangible reward can be used to promote engagement, but the ultimate goal should be that it fosters authentic intrinsic motivation where no external incentives are needed. The last two question relate to the offered extrinsic reward, and the relationship between extrinsic rewards and intrinsic motivation. When asked about the reward in general and whether it had any a role to their performance, Sales Consultants shared a similar response. The reward did have a certain effect, but it wasn't a dominant motivator. Entering information to the CRM system is a vital part of their daily work, and therefore, being rewarded from doing such was mainly considered as a potential bonus. An interesting point was made by SC1 who stated that the reward had more influence first, but then it gradually decreased.

> …I would day that 60% was other things and 40% (was the reward) so it had a big role. And I think at first it had more influence, but then it turned the other way around, as you got more involved (in the game)…and as you saw that other people started to get points as well, then it was just fun to see what is out there. And then you didn't focus on it (the reward). (SC1)

> Of course, it had some sort of affect…if there would be no prize on a game, I guess you wouldn't have taken it too seriously. (SC3)

As stated in chapter 2.5.3, several studies have examined extrinsic rewards and intrinsic motivation, and results have varied from positive, negative to neutral effects (Cameron, Blanko & Pierce, 2001). When Sales Consultans were asked, whether they would have acted the same even if no *monetary* reward was involved, informants were quite certain that if would have not made a big difference.

> Sure, it did have an effect…but it wasn't like I'd do something or left something undone because of it. (SC2)

> Yeah because basically, that is what we normally do and what we're supposed to do…Tracking activities was so concrete, because it was one point…I would've done the same, even if the price would've been a bucket or something. Or even if there was no price at all. (SC1)

Engagement

The fourth section focused on investigating engagement. As stated earlier, there is a lack of practical research on gamification's ability to reinforce engagement (Yang et al., 2017). Questions examined several aspects, including positive and negative emotions in regard to gamification, participation and performance. Several empirical studies have suggested, that the use of gamification elements can affect positively on engagement, motivation, and performance (Alsawaier, 2018; Seaborn & Fels, 2015). But, as stated in chapter 2.9, many of these experiments have been conducted in pedagogic contexts, and several studies question whether gamification elements have a connection to increased engagement at all. (Alsawaier, 2018; Hanus & Fox, 2015)

According to Sweetser and Wyeth (2005), fostering player's enjoyment should be the most crucial player engagement objective for gamification. Players that enjoy gamification tend to more be motivated to play in the future as well (Huang & Cappel, 2005). When asked about the feelings that gamification might have aroused, informants identified them to be mainly as positive. According to Sales Consultants responses, negative feelings were rare, and they were mainly related to being behind from others. Some experienced increased engagement, when they started to rise in the leaderbord. According to a few informants, discussing points was fun, as it differed from the usual topics. Few also highlighted the concreteness of points, as they indicate the units of labour, that Sales Consultants repeat every day.

> There was barely anything negative, but some small…maybe a tiny worry about what is going on as I am the last one on here and should I start doing something. And in regard to positive (emotions), when I started to rise in the leaderbord I felt little bit like, I might win this game…a feeling of joy and a victory…it made push even harder. (SC3)

> …positive were maybe related to the team, if you saw your team members at the office then it was usually fun to discuss about the points and not always about cases. The weight (in discussions) was like on somethings else…And then I think it was nice to see, as we have these (people) who have been in the house longer and then these guys that are newer…as I know that (SC3) has lots of stuff going on, and these (new guys) gave some challenge…and that it wasn't just the euros (that counted) but the basic doing of things…maybe at that one point when distance to other players got quite big I felt like ahh. I'll never catch them. (SC1)

> …it made the done activities more concrete, because sometimes it feels like you do a lot of things, but you can't get anything done…everyday, you make quite a lot of outputs, that can be seen in the results maybe weeks or months later. *(SC2)*

In the following question, Sales Consultants were asked whether they used CRM somehow differently, when compared to normal use. According to Muntean (2011), time spent on site and frequency of visit are suitable metrics to examine engagement. According to most key informants, CRM was visited more frequently. According to their statements, appropriate records on CRM were often done immediately after a meeting or a call, whereas before, the 'entering stage' would have waited until the sale had been confirmed. Sales Consultants also were more responsive in entering especially smaller sales opportunities (e.g. with lower revenue expectancy) to the system. Results suggest, that s deeper level of engagement was achieved.

> In the usage itself I didn't notice a difference, but I went there (CRM) more often than normally. (SC3)

> Yeah in a sense, that I started to link the meetings in (CRM) that way…every time I had a phone call or agreed upon something I put it in there….during that month, it became more like a tool for us. (SC4)

> It did (differ). I went there as often as usually…you were really entering them sales opportunities more responsively…the activity in recording sales opportunities was higher. (SC1)

> Maybe that you entered the information there faster…and that you recorded more sales opportunities. (SC2)

Next, Sales Consultants were asked directly whether they think that fostering competition inside their sales team would increase personal and team's performance. Responses varied between informants, but what could be interpreted from them was that competition is welcomed. The respective team members consider them more or less competitive, and the side effects of it merely positive.

> Absolutely I think this (CRM) gamification would make people use CRM more frequently and as I said before, salespeople are relatively competitive by nature, they don't want to be the last…so it motivates. If you use it (CRM) more often, and as you continue to use it often, it wont be such a pain in the neck anymore,…if you don't use it (CRM) for a week or so and then you should go and put everything in there…so in a way, the time you consume with it decreases. (SC3)

> Maybe on a campaign level…its hard to measure daily work in game. (SC5)

Burguillo (2010) states that competition that is being reinforced by leaderboards can create social pressure, which can effect positively on players level of engagement. Therefore, the second last question examined, whether Sales Consultants felt that the competition stemming especially from the leaderbord caused any social pressure. Sales Consultants responses varied, as some identified social pressure in some level, but it was interpreted to be positive in nature.

> In fact, the game itself didn't create any pressure, you just search cases and deals the same way as you used to, but then the CRM world, that you go there and enter everything, also the smaller opportunities, so that maybe…most pressures within a sales team stem from how many euros you got in there. (SC3)

> Well, to some level yes…but on the positive side only. You noticed that okay, I haven't recorded anything for a couple days and others' points are building up, so I guess I should activate myself. (SC2)

> No, not really. Sometimes we spoke (about it) but I don't think that anyone experienced it in that way. Maybe sometimes, I don't know – it's like you were aware of it, and I knew I had to do something (enter sales opportunities, etc). (SC1)

> To our direction, maybe not…but maybe towards those (Sales Consultants) who have been in here for several years, as they should set the example. (SC4)

The last question related on Sales Consultant's feeling of participation. Several studies conducted in pedagogic contexts tend to suggest, that gamification can increase participation (Cronk, 2012; Barata, Gama, Jorge & Gonçalves, 2013). According to Muntean (2011) participation is a suitable metric to analyse engagement. Burguillo (2010) argues, that higher level of engagement can effect positively to participation. When asked about Sales Consultants whether they experienced increased levels of participation, responses were neutral.

> I don't know really, maybe when it first started we talked about it more. And then towards the end it got more intense, but in the middle of game there was a period we didn't really talk about it. From my part, I don't think it increased that much. But at first when I was at the top it felt like everybody was messaging me something or talking about it. (SC1)

> Yeah I guess when there is something to discuss about…those cases are something you don't really want to discuss about until they are ready…so that (gamification) was somethings you could talk about…it is always a positive thing then. (SC4)

> From my own part, I guess not really…you did same things in the same way. (SC2)

5   DISCUSSION

5.1   Answers to research questions

The research questions of this study were presented and reasoned in chapter 1.2. This final chapter gives answers to those questions. The first research question was two-parted, and it was done in order to examine the concepts of motivation and gamification from as holistic perspective as possible. It was anticipated that by this way, that the nature of these concepts could be depicted comprehensively. In reality, motivation is a surprisingly multifaceted psychological issue, but it is often referred as singular construct. In a similar fashion, gamification is also treated as a solid concept, but as this study shows it is a comparatively versatile in nature.

Due the reasons mentioned above, it was not convenient to investigate the motivational pull of gamification as a one, universal construct, as stated chapter 1.2 (Sailer et al., 2017). Sailer et al. (2017) also argued, that focus of inquiry in the future should be on examining the impact of specific game design elements in a given, specific contexts, as this would help to improve the state of empirical research of gamification. Therefore, a sub-question was set to examine the motivational pull of two specific game-design elements: leaderbord and points. The elements in the latter were introduced in chapter 2.8.1., and they represent some of the most commonly used game design elements. From a game design perspective, leaderbord and points played are crucial role in the game experiment, as the design was very straightforward. Before discussion, the initial research question shall be reviewed. The first, two-parted question went as follows:

1. Does gamification increase Sales Consultant's motivation to use CRM
a) Does leaderbord and points increase Sales Consultants motivation to use CRM

It has to be noted at first that this study confirms the results by Hamari et al., (2014) who argue that gamification does actually work. According to the results of this study, *gamification can increase Sales Consultants motivation to use CRM, as it activates users, and fosters playful competition within a team.* Due to gamified CRM experience, most Sales Consultants also entered the smaller sales opportunities to the system, and it gave all more routine to the CRM tasks. Motivation was examined particularly from the perspectives of intrinsic and extrinsic forms of motivation. According to the results, Sales Consultants were motivated by a rather even mix of intrinsic and extrinsic forms of motivation. This was expected, since humans are rarely motivated by a one condition only. The monetary reward was a substantial motivator for most Sales Consultants, but according to the results it didn't reason the activity itself. The activities (records in the CRM system) were primarily done due to intrinsic incentives. Some of these intrinsic motives included better data quality in the final reporting, a closer examination (or research) of CRM systems and the experienced enjoyment while doing tasks and following how the game evolves. One informant experienced that the extrinsic

reward had more role at the beginning of the game, but as the game proceeded, it wasn't the primary motivator anymore. This may be interpreted as a signal of increased self-determination.

In regard to the sub-question (1a), *points and the leaderbord can at least implicitly, increase Sales Consultant's motivation to use CRM, as they foster good-natured competition and provide feedback from their performance.* Therefore, this study confirms what several empirical studies tend to implicate: gamification elements affect positively on motivation (Alsawaier, 2018; Seaborn & Fels, 2015) by reinforcing the circle of 'action and immediate feedback'. Points and the leaderbord were considered as clear forms to track one's activities, but as entering information to the CRM system belongs to the Sales Consultants compulsory work-related activities, it can't interpreted, whether one or the other of these elements would've directly affected Sales Consultants motivation to use CRM. Also, Sales Consultant's customer cases differ from another, as some might take weeks to prepare and some are finished in one setting. This causes the competition and its visual illustrations to be corrupt to some extent. But in contrast, when some Sales Consultants were low on points and hanging at the bottom of the leaderbord, it made them more active, as they didn't want to end up being the one at the bottom. From this perspective, the motivational power of points and the leaderbord in regard to Sales Consultant's motivation to use CRM was explicit. The results of this study verify, that points and leaderbords can be linked to certain thus unspecified motivational mechanisms, but it also validates, that evidence of the motivational effect of leaderbords remains mixed. (Burguillo, 2010).

2. Was Sales Consultants engagement affected by CRM system gamification

As stated in earlier chapters, several empirical studies tend to suggest that gamification can affect positively on motivation and engagement (Alsawaier, 2018; Seaborn & Fels, 2015), but in contrast, many studies also indicate that they have no correlation at all. According to the results of this study, *Sales Consultants engagement was moderately affected by CRM system gamification, as levels of engagement increased in accordance to the metrics being used.* Muntean (2011) argued that frequency of visits is a rightful metric to analyse engagement, and according to most responses, CRM was visited more frequently. According to Sales Consultant's statements, the information was recorded to CRM immediately after a meeting or a call had taken place, whereas before, the 'entering stage' would have waited until the sale had been confirmed. Sales Consultants were also more responsive in entering especially smaller sales opportunities (e.g. with lower revenue expectancy) to the system. In regard to this metric and the given results, a higher level of engagement was achieved due to more frequent visits and active use of CRM.

The other chosen metrics by which engagement was analysed were experienced enjoyment, participation and performance. Most Sales Consultants experienced enjoyment in some level, and it related the competition side. Discussions around points were also considered fun, as it gave something different to discuss or joke about. According to Muntean (2011) participation is a suitable metric to analyse engagement, and it was therefore examined. The results didn't indicate that Sales Consultant's participation increased due to gamification, but if it did,

it was very moderate. Performance as an indirect metric is difficult to analyse, but the results indicate that Sales Consultant's performance increased from the aspect of effective CRM system usage: activities were performed more densely, as straight after a meeting or a call the appropriate information was entered to the CRM system. This is thought be a positive change, as when information is stored to the system immediately it is unlikely to contain as much bias than information that is entered to the system in maybe days or weeks after. People tend to forget things, and non-marketable data may cause inefficiencies or misjudgements further in the pipeline.

Another interesting issue was the argument by one of the Sales Consultants that had been working at the company for less than a year whom stated, that something had been learnt from the gamified experiment. The Sales Consultants in question stated, that CRM became more like tool for one during the gamified CRM experience. Few of the Sales Consultants who that had been working for the case company for several years, reported that CRM is more like a tool to manage their own work. In conclusion, if a new Sales Consultant learnt how to use the system more efficiently, it means that one of the fundamental goals of gamification was achieved.

3. Can CRM gamification increase Sales Consultant's productivity

As stated in chapter 1.2, the third research question was derived from questions one and two, which examined motivation and engagement. It was anticipated, that if the motivation and engagement increase through CRM system gamification, it would increase the amount of outputs or activities, that are performed in and outside the system. According to results, *gamification did not increase Sales Consultants productivity in the traditional sense, but results did indicate it has the potential to do so.*

According to Sales Consultants responses, gamification did not cause them to seek any new cases. Although time was saved by doing CRM records to the system more responsively, it can't be stated based on the evidence that productivity would have been positively affected. Gamification brought some speed to certain activities, and it increased the amount of singular units of labour. Therefore, it can't be stated that CRM system gamification would have affected the bottom line. According to Venkatesh (2000), successful adoption of technologies can increase employee productivity, and therefore it is possible that productivity did moderately increase by Sales Consultants, who learnt to use the system more efficiently during gamified CRM experience.

In conclusion, the results indicate that gamification has the potential to increase productivity, but the subject needs to be further investigated. Gamified CRM experience increased user's activity, and when certain tasks are performed by a routine and more densely, it may have created room for other productive activities. More regarding the gamifications potential to increase productivity shall be discussed in chapter 5.3, managerial implications.

5.2   Theoretical contributions

The purpose of this study is to contribute to the relatively young empirical research tradition of gamification, and the related psychological concepts of motivation and engagement in particular. As stated in previous chapters, there is lack empirical and qualitative research in the gamification domain (Alsawaier, 2018, Seaborn & Fels, 2015). It has also been reported, that the majority of the scholarly work examining the effect of gamification and motivation is done by quantitative methods and in the context of education (Hamari et al., 2014; Seaborn & Fels, 2015). The pedagogical perspective has since prevailed, and it has been focusing on examining student motivation and engagement in particular. The research in this area is valuable in many aspects, but it can be argued how transferable are these findings to the context of CRM system gamification. In addition, the results in these educational studies have been mixed, as some indicate a tight connection between gamification, motivation and engagement, and some tracing no connection at all (Alsawaier, 2018).   In this study, the participants were adults, which most of them had been working in sales for a quite some time. As people mature, it is more than likely that values and primary motivations change from what they were, especially from the stage when the person was in high school or even a young child. Children and younger people tend to have the playfulness close to their hearts; play and fun are usually the 'work' of children. When a person grows up, fun and play are likely to have different meanings, maybe even negative in some contexts. Work environment is a good example of this kind of context. Due to this, more scholarly work is needed in order to examine and ensure, that gamification and its ability to promote motivation and engagement is not solely looked up from the perspective of students and the pedagogic context.

Although the theoretical contributions to the lacking qualitative research of gamification in this study are minor, these findings underline the fact that gamification, motivation and engagement should be further explored, and the scope of the studies investigating gamification should overlap to the area of CRM system gamification as well. CRM systems along ERP technologies are crucial systems for many enterprises, and these technologies are constantly advancing. Understanding human behaviour, motivation and what engages users may help in the design of better solutions that are actually in active use. This study confirms many of the general theoretical statements regarding gamification. It validated that statement by Hamari et al., (2014) showing that gamification does work in a CRM context as well, and that is has the ability to motivate people by activating them, and by fostering light-hearted competition between players. The study validated, that points and leaderbord as game-design elements can increase intrinsic and extrinsic forms of motivation. The study also validated, that gamification can increase engagement. The results of this study indicated, that gamification has the potential to increase Sales Consultants productivity in certain situations, but this correlation should be investigated further by mixing both quantitative and qualitative methods.

As stated in the introduction chapter, gamification has the potential to be leveraged in various contexts, such as healthcare, marketing, training and

government. There are not enough studies examining the potential of gamification in business contexts, where the focus is on adults or employees. The vast motivation research and widely tested theories have lot to offer for gamification research, and this stream should be continued to examine.

5.3   Managerial implications

As stated in chapter 1.2, motivation is one of the main concerns for many organisations and managers, as unmotivated people tend to produce low quality work, are more disengaged, and often exit their respective companies quickly (Amabile, 1993). Motivated and engaged people instead, tend to excel at work and they usually do more than the minimum that is expected from them. According to Saks (2006), engagement in particular can have great implications for managers: a high level of engagement is commonly linked with organizational commitment, and employee's intentions to not to leave their organisation.

As stated in previous chapters, gamification is a practical tool to promote motivation, engagement and learning. Gamification can increase user activity by playful competition. At least in the case company, tightened competition only had positive effects. Increased activity and fastened tempo in doing things can make the system usage more effortless in time, as the system usage becomes more frequent. Rewards can motivate some employees, but it should be noted that offering extrinsic rewards may have neutral, or even negative effects to some. Therefore, there is no reason to set extravagant rewards for gamification activities; if the task itself is considered everyday type of an activity, then it is likely that the motivation to perform such stems from the intrinsic types of motivation, as this study showed. In other words, it is not necessary to interfere such activities with extrinsic pressures. Intrinsic motivation, such as employee's willingness to learn by doing should be emancipated before the reinforcement of extrinsic motivators.

Sales Consultants competitiveness was something that acted as a unifying factor during the game. Sales Consultants didn't argue, that the highlighted competitive situation had any negative influence. This may also be due to the fact that salespeople need to be active due to their salary model, and to excel in their job in the first place. Organisations that would especially benefit from gamification are intensive sales organisations, that sell singular outputs or simple offerings. This way, it is easier to keep the game simple and to stay in control of the possible biases that may occur.

It cannot be stressed be enough, how important it is to understand the individual differences between people: employees that flourish in some teams, may underperform in others. Employees, that are motivated by intrinsic challenges and exploration, may suffer when being motivated by pressuring extrinsic incentives. One managerial implication is this: one should be vocal and understanding about what motivates an individual employee, and try to offer that individual the right resources, and extrinsic or intrinsic incentives that they may need in order to succeed in their job. According to Social Exchange Theory, employees

usually pay back with a higher level of engagement. And if they don't, it must have not been a real motivator or a resource for them. This in itself is a valuable finding. A greater engagement to work and motivation do not only benefit managers or the organisation: people who are motivated and experience engagement also tend to be happier. Managers should try to be creative when exploring ways to motivate and engage employees, trying has rarely hurt anybody. If a manager succeeds in understanding what motivates hers or his team members, it could unlock the motivational powers that exist in every human being. In this case, increased competition within in a team had positive influence for Sales Consultants engagement and motivation to enter information to the CRM system. Based on the results of this study, the case company managers are encouraged to utilize light-hearted competition in motivating and engaging Sales Consultants, keeping in mind individual differences and moderation. This suggestion does not only apply to CRM system usage, but other work contexts as well.

5.4   Limitations of the study

This study was limited by a number constraints, that affected mainly the scope of this study. As a Master's Thesis, this research was not financially supported which in itself tightened the duration of the study. In a similar fashion, this study was also restricted by time constraints, which also affected the scope of the study.

As stated earlier, this study was based on a single-case. Single-case studies can accurately depict a phenomenon (Siggelkow, 2007), but studies that include multiple cases do typically provide a firmer ground for theory building (Yin, 1994). This can be considered as a limitation, but at the same time, single-case study provided a sole focus on one case company. Along with other constraints explained above, single-case study approach was proven to more appropriate strategy, as it allowed more concise and deeper analysis.

One limitation regarded the number of key informants. A more throughout look could have been had for the research themes, if there was a higher number of participants. Still, it can be argued that the data collected was rich enough in order to get precise answers to research questions and to examine gamification, motivation and engagement from different angles.

One limitation related o to the number of informants, and on the other hand to the actual game design. A more comprehensive view on the themes could have been acquired, if there would have been enough participants to have two sales teams competing against another. This aspect could have supposedly, increased participation and collaboration among informants, and decreased the amount of individual competition between Sales Consultants. By having competing teams, the data may have been richer, but on the other hand, it would have made the data examination process more complicated. This could have caused unwanted errors in the interpretation and translation processes, as the timeline for the completion of this study was limited. One limitation concerned the game-design elements that were examined. In this study, there was only two elements that were under investigation: leaderbord and points. A broader view could have been had

on the subject, if there were several game-design elements under investigation. Thus, Sailer et al. (2017) suggested that the focus should be on examining the impact of specific game design elements. Focusing on too many elements could have made it more difficult to investigate the individual effects of the separate game-design elements, and how to they may have affected motivation.

5.5   Avenues for future research

The domain of gamification in itself offers a lot to examine, as the nature of the construct is multifaceted, and gamification elements and dynamics can be applied to various contexts. As stated earlier, markets are giving mixed signals about the adoption rates of gamification applications (Dale, 2014). It can be argued, that gamification is still relatively unknown construct, which needs further exploration. When it has been studied more, firms maybe more adventurous in trialling gamified applications, and the accumulated information about implementation best practises could eventually increase the adoption rates of gamified applications.

As stated in previous chapters, the majority of empirical research on gamification has been quantitative (Seaborn & Fels, 2015). The amount on qualitative research is lacking, and future research should focus on expanding it. As mentioned earlier, majority of the scholarly work has been focused on examining gamification, motivation and engagement in the context of education. Therefore, it is suggested that the future research should primarily focus on examining gamification in contexts other than education. And as Sailer and colleagues (2017) suggested, the focus of inquiry should also be on examining the effect of specific game-design elements in specific settings. In addition to these notions, the previous research has been focused on studying student motivation and engagement. Therefore, examining how gamification affects adults and employees in different contexts could be a useful research area. One interesting avenue for research would also be to examine how gamification affects the learning of elderly people.

In conclusion, motivation research offers wide range of widely tested theories and frameworks to examine gamification. Examining gamification in regard to Herzberg's Motivation Hygiene Theory would present an interesting task. As stated in chapter 1.2, extrinsic motivation is often left aside in empirical research (Kuvaas, et al., 2017). Therefore, examining this form of motivation in regard to gamification in suggested for the future empirical work.

As stated in chapter, King and He (2006) argue that Technology Acceptance Model (TAM) still represents a robust model to examine the acceptance of technologies. According to them, TAM has the potential to be applied into a different contexts, and examining TAM's usefulness in regard to the adoption of gamified systems could be an important avenue for future research. Alsawaier (2018, pp. 56) also stated, that the implementation guidelines of gamified designs are limited, but much needed. Dale (2014) reported that the markets are giving mixed signals about the adoption rates of gamification applications, it is worthy of wondering, whether TAM could help in making more sense of the adoption phase

from the player perspective. Venkatesh (2000) also postulated, that intrinsic motivation has a crucial role in the use of technologies in the work context. From this standpoint, investigating TAM and SDT would be a fascinating task. Venkatesh (2000) also argued, that successful adoption of technologies can increase employee productivity, but because the evidence regarding gamification ability to increase productivity was insufficient in this study, it is suggested that this connection will be further investigated.

Employee engagement in particular is thought to have a straight link in to a company's bottom-line results (Macey & Schneider, 2008), which makes is worthy of an investigation in the 21st century. Therefore, it is suggested that future research should focus more on investigating engagement, and especially in business contexts. Millennials also play games more than the previous macro group. According to Rauch (2013), gamification is a powerful tool to motivate and engage especially millennials. In order to get this workforce motivated in the following decades, employers have to provide their future employees solutions that satisfy the tendency to play and engage digitally (Rauch, 2013). Therefore, it can be argued that more empirical research around the subject is needed and especially now, when tomorrow looks even more automated and digital than it was yesterday.

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APPENDIX

Name:

Age:

How long have you been working in your company?

How long have you been working in sales?

Theme 1: CRM system

1. Why do you use a CRM system?
2. What are the system functions that you use the most?
3. How frequently do you normally use CRM?
4. How CRM supports you in your daily work?
5. Are there any procedures, that make your work more slow or complicated?

Theme 2: Gamification

6. What did you think the possibility to track your score and performance in comparison to others in real time?
7. How did it feel, when the situation in the game changed in a weekly basis?
8. What did you think about the highlighted competitive situation?
9. Do you enjoy competition, or do you find it uneasy sometimes?
10. Did you have any strategy to collecting points?
11. Did you learn anything from your CRM system?
12. Did you find gamification entertaining?

Theme 3: Motivation

13. What motivates you in your work as Sales Consultant?
14. What made you participate in the game?
15. What motivated you to collect points during the game?
16. What did you think about the leaderbord?
17. What was the role of the reward in regard to your performance during the game?
18. Would've you played the same way, if there wasn't no monetary reward?

Theme 4: Engagement

19. Can you describe emotions you experienced during the game?
20. Did you use CRM differently than before?
21. Do you think that competition (in a team) would affect your performance?
22. Did the leaderbord and visible competition add any social pressure?
23. Did your sense of participation increase due to gamification?