Gamification of the sales process at a telecommunications company to improve the motivation of the salesforce

Johannes Kananen, corresponding author, Niittymäentie 10, 02200, Espoo, Finland, jkananen (at) gmail.com
Murat Akpinar, JAMK University of Applied Sciences, School of Business, Rajakatu 35, 40200, Jyväskylä, Finland, murat.akpinar (at) jamk.fi

Abstract

Improving the motivation of the salesforce is an important goal which can lead to increased sales revenues. This study aims to understand how game elements can be applied to achieve this goal, and it contributes to both the sales literature and the newly emerging gamification literature by developing a gamified solution for the shop-in-shop sales channel of a telecommunications company in Finland (the case company), being the first study to apply gamification in the context of sales. The solution was developed by applying design-based research methodology in a cyclical process involving four interviews with a sales manager and two field observations of the sales process at the case company. The designed solution exemplifies the use of game elements in the light of theoretical concepts from the self-determination theory and the flow theory. Validated through further interviews with two salespeople from the case company and two salespeople from a company in the electricity production and distribution industry, the proposed solution can in future research be implemented and tested in other sales contexts.

Keywords: Gamification, motivation, business process management, design-based research, telecommunications

1. Introduction

Globalization has increased competition while technological advances have enabled new ways of achieving productivity in operations (Avlonitis et al. 2014). Although the productivity of labor has increased by fifty-fold during the 20th century, its growth has decreased to 0.5% per annum during the 2000s, but there is room for improving the productivity of non-manual employees in the knowledge-based society of the 21st century (Drucker 1999, OECD 2015). Improving the productivity of non-manual employees necessitates improvements in their motivation. In response to this call, this study analyzes the sales process at a multinational telecommunications company in Finland and aims to improve the motivation of the salesforce using gamification. Gamification, defined as the use of game elements in non-game contexts (Deterding et al. 2011), can be a means to improve the motivation of the salesforce by allowing them to compete, interact, get feedback and make progress through the use of game elements (Zichermann and Cunningham 2011, Werbach and Hunter 2012). This may result in higher motivation and higher engagement, leading to higher quality and higher productivity (Jung et al. 2010, Eickhoff et al. 2012, Groh 2012, Blohm and Leimeister 2013, Hamari 2013, Mekler et al. 2013). If games are deconstructed and their characteristic elements are reverse-engineered to work activities, tasks can be more engaging and pleasing, resulting in more motivated employees (McGonigal 2011). With the acknowledgment of these potential benefits, gamification has gained increasing academic popularity after 2010 (Hamari et al. 2014). Although it has been applied mostly in the context of education and learning (see Banfield and Wilkerson 2014, Hamari et al. 2014, Müller et al. 2015), there are also applications in the contexts of production (see Korn 2012), product development (see Kampker et al. 2014), and marketing (see Salcu and Acatrinei 2013, Robson et al. 2014). Being the first attempt to apply gamification in the context of sales, this study will contribute to the increasing literature on gamification. A study on the motivation of the salespeople is highly important because they contribute to a firm's success directly due to their role as nexus between the firm and its customers (Simintras et al. 1996). This was also emphasized by the management of the telecommunications company involved in this research who responded positively to the idea of improving the sales process using game elements. The right design of game elements is crucial for achieving set goals (Gartner 2011), and game elements should not be used to change the underlying tasks but to enhance the motivation towards the tasks (Mollick and Rothbard 2013). In the light of these thoughts, this research aims to answer the following research question.

How can game elements be used in the design of the sales process at a telecommunications company for improving the motivation of the salesforce?

To answer the research question, there is the need to understand the principles of gamification and analyze the current state of the sales process at the telecommunications company. For this purpose, the relevant literatures on motivation and gamification are reviewed in section 2. The literature on gamification focuses on game elements, which are the key ingredients for designing a gamified solution as stated in the research question, and the process of applying gamification, which is important for developing the gamification process framework in section 3. The applied methodology is design-based research which is a cyclical process of research and development for designing practical solutions for problems (Edelson 2002,

Kananen 2013). This methodology, which is explained in section 4, suits well as the objective of the research is to construct a gamified design for the sales process, and it has been applied in earlier gamification literature (see Korn 2012, Blohm and Leimeister 2013, Müller et al. 2015). The current state of the sales process and the developed solution are presented in section 5, and the paper ends with a discussion in section 6.

2. Literature review

2.1 Motivation

Motivation has for long been studied (for a review see Russell 2008, Akpinar et al. 2015), but the use of gamification as a tool to increase motivation is relatively new (Hamari et al. 2014). In early literature Maslow (1943) provides a hierarchy of needs and argues that the motivators will depend on which needs have not yet been satisfied. According to the two-factor theory of motivation, basic factors to provide a good work environment prevent demotivation while factors like achievement, recognition, responsibility, and promotion increase motivation (Herzberg 1968). McGregor (1960) classifies people either as work shy (Theory X) or as self-directed and committed (Theory Y). People of Theory X have external locus of control, and as a result they need extrinsic motivators such as rewards or punishments. People of Theory Y, on the other hand, have internal locus of control, so they possess intrinsic motivators such as self-esteem, own initiative, and self-direction. The expectancy theory suggests that motivation depends on the anticipation of a reward, the importance of this reward, and the expectation of achieving this reward (Vroom 1964). According to the attribution theory, people attribute success to own abilities and failure to uncontrollable external circumstances, and they are motivated to achieve if they have attributed past performances to their own efforts (Weiner 1985). The ARCS model of motivational design argues that motivation comes through attending (A) to a task, understanding its relevance (R), being confident (C) on achieving the goals of the task, and getting satisfaction (S) from the task (Keller 1987).

Motivation is an important determinant of sales performance together with role perceptions and capabilities (Churchill et al. 1985, Weitz et al. 1986), and based on expectation and attribution theories, it is a function of expectancies, instrumentalities, and valence for rewards (Walker et al. 1977, Dubinsky et al. 1994, De Carlo et al. 1997). The compensation scheme has important consequences on the motivation of the salesforce (Jobber and Lancaster 2003). Most firms use a mix of fixed salary and commissions in that while the fixed salary controls for behavior, commissions motivate outcome (Kuester and Canales 2011). There is need for balance between control and motivation because salespeople have strong ego drives (Cooke 1999). Motivational factors for the salespeople can be intrinsic or extrinsic: while intrinsic factors are inherent in the sales tasks, extrinsic factors refer to external rewards (Dyer and Parker 1975). While Deci et al. (1999) and Deci et al. (2001) argue that all kinds of rewards (except positive feedback) have detrimental effects on intrinsic motivation, Cameron and Pierce (1996) and Eisenberger and Cameron (1996) suggest that the detrimental effects of rewards occur in highly restricted conditions which can be easily avoided. On the contrary verbal rewards (positive feedback) enhance intrinsic motivation, and tangible rewards which are delivered unexpectedly do not harm intrinsic motivation (Cameron and Pierce 1996). Nicholson (2012) warns that using external rewards in gamification will reduce intrinsic motivation in the long-run. This is in line with the arguments of Deci et al. (1999) and Deci et al. (2001). Nicholson (2012) also suggests that the threat can be avoided if the game elements are made meaningful to the users through information, and external rewards are not emphasized, and this is in line with the arguments of Cameron and Pierce (1996) and Eisenberger and Cameron (1996). Thus, a user-centered design with meaningful game elements and caution about the use of external rewards will create meaningful gamification, which can increase motivation (Nicholson 2012). It is also important to note that motivational factors can differ by cultures (Dubinsky et al. 1994, Moberg and Leasher 2011).

The self-determination theory states that an intrinsically motivating task must suffice the needs of relatedness, competence, and autonomy which stem from humans' natural determination for growth, integration, social development and personal well-being (Deci and Ryan 1985, Ryan and Deci 2000, Gagné and Deci 2005). Relatedness addresses the need to interact and be connected with others (Deci and Ryan 1985, Ryan and Deci 2000). The principle of relatedness argues that it is important to understand the social context, connect the user to a meaningful community with similar interests, and create a meaningful story to be shared within the community (Groh 2012). Competence describes the need to be effective in mastering a challenge or solving a problem (Deci and Ryan 1985, Ryan and Deci 2000). The principle of competence assumes that positive feedback on competence increases intrinsic motivation (Ryan et al. 2006). Therefore, it is important to provide interesting challenges to users together with clear goals and to offer fresh feedback (Groh 2012). Finally, autonomy refers to having the possibility to choose and to control the course of actions (Deci and Ryan 1985, Ryan and Deci 2000). The degree of motivation increases when the degree of autonomy is higher since the autonomous user will enjoy the tasks more by having possibilities to affect the outcomes (Gagné and Deci 2005). The principle of autonomy states that it is important to offer individual, voluntary pursuit towards goals while taking into account possible risks of losing autonomy (Groh 2012).

The flow theory describes the mental state for staying focused in one activity. It is based on the assumption that users will stay focused on an activity if they are neither under-challenged nor over-challenged by the difficulty of the activity (Csikszentmihalyi 2008). Their motivation will decrease otherwise because they will be bored if they are under-challenged, and they will feel anxiety if they are over-challenged (ibid.). Adjustments in the difficulty of the challenge are needed to keep the users in the "flow", hence motivated to focus on the tasks.

2.2 Gamification

Games offer users the autonomy to make choices and the possibility to satisfy the need for competence in a social setting (Ryan et al. 2006). Games have a goal, rules, a feedback system and voluntary participation: the goal is the outcome what the players are striving for, and rules restrict the players' actions and increase the challenge; the feedback system gives the players information about their progress, and voluntary participation allows to enter and leave the game at will (McGonigal 2011). The application of game elements in non-game contexts underlies the concept of gamification (Deterding et al. 2012). Huotari and Hamari (2012) criticize this definition because it can be challenging to differentiate between game and non-game contexts. Emphasizing the user experience, they define gamification as "a process of enhancing a service with elements for game experiences in order to support the user's overall value creation." This definition is adopted here because it promotes the context of services, which includes sales, and it explicitly states that the goal is to support the user's overall value creation, which is relevant for motivation.

2.2.1 Game elements

Game elements are features which enable users to experience a need satisfaction (Huotari and Hamari 2012). They deliver increased motivation by stimulating psychological needs of users like engagement, attention, persistence, fun, need for achievement (ibid.). Motivation then triggers behavioral outcomes such as enhanced efforts and learning while feedback helps to readjust these outcomes. There are ten game elements which can be used in gamification. They are feedback, rewards, progress, points, leaderboard, achievements/badges, story/theme, clear goals, levels and challenges (Hamari et al. 2014). Feedback, rewards and progress are the "overarching game mechanics", and the remaining elements which are adopted from video games implement the "overarching mechanics". *Feedback* means returning information to the players and informing them of their current position against other players or in their progress towards the goal (Zichermann and Cunningham 2011). It enhances the motivation by establishing a clear connection between user effort and performance (McGonigal 2011, Werbach and Hunter 2012). *Rewards* are desirable outcomes that serve to influence behavior (Delgado 2007). *Progress* shows how the players are advancing towards the goal (Oinas-Kukkonen and Harjumaa 2008). Checklists or progress bars are used to display progress. It is evidenced that the nearer the players are to a goal, the more effort they will put to attaining it (Kivetz et al. 2006). *Points* are the units that measure score (Werbach and Hunter 2012). They provide feedback to the players and display progress. *Leaderboard* is a ranking of the players according to performance (Hamari and Koivisto 2013). By bringing the individual scores to the social context, it gives the players a possibility to compare their performances. *Achievements/badges* are visual representations of an achievement (ibid). Offered on successful completion of tasks, they satisfy the need of esteem. *Story/theme* is a higher-level concept which connects different game elements to a coherent whole of progress in time (Smith and Baker 2011). *Clear goals* are needed to match the desired behavioral outcomes with the abilities of the players (Hamari and Koivisto 2013). Based on the principle of autonomy, the impact of goal setting is higher when the players set their own goals (Groh 2012). *Levels* indicate the difficulty of the tasks (Zichermann and Cunningham 2011). Finally, *challenges* are used to instruct the players what to do in the game (Hamari and Koivisto 2013). They are related to badges because badges can be earned, e.g., for completing a challenge. A good way to keep the motivation level high is to continuously provide the players with some challenges to complete (Csikszentmihalyi 2008).

2.2.2 Gamification process

Gamification is a process with discrete steps (Huotari and Hamari 2012). In the "6 Ds" framework of Werbach and Hunter (2012) the first step is to define the goals for the gamification. Questions such as "what is to be achieved?" and "what is the problem?" should be asked. The second step identifies the measurable behaviors that lead to the desired outcome, and players are described together with possible motivation factors in the third step. In the fourth step, activities of the game are designed using engagement loops, which describe how the gamification system works, and the progression stair, which describes how the system will change in time when players earn certain points. The fifth step checks if the system is engaging and fun for players, and the last step is for implementing it.

In the "Player Centered Design" framework of Kumar (2013) the first step maps the players and describes their roles. The second step aims to understand the current business scenario and the desired business outcome, and the third step is about understanding human motivation. In the fourth step appropriate game elements are identified, and in the fifth step the rules and the point system are defined for the game, and game elements are aligned with engagement loops. Finally, the last step involves the management of the system and its continuous development through measurement and monitoring of its success.

The two frameworks were considered for use in the empirical study, but they did not fit well to the needs of the case company, thus a new framework was adapted from the Business Process Management (BPM) literature to the context of gamification.

2.3 Business Process Management

BPM is an emerging research theme in management (de Morais et al. 2014). Aiming to develop innovative solutions to complex business problems with the use of technology, it enhances competitive advantage (Niehaves et al. 2014). It is defined as "using methods and software to design, control, and analyze business processes" (Van Der Aalst et al. 2003). BPM is practical, iterative and incremental in fine-tuning business processes (Ko et al. 2009). As such, it differs from business process reengineering which is characterized by radical process transformation (Shin and Jemella 2002, Zhang and Cao, 2002).

BPM models apply lifecycles to manage, improve and control business processes (de Morais et al. 2014). Lifecycles pursue the stages of planning, diagnostics, design/modeling, implementation, monitoring/control, and refinement (de Pádua et al. 2014). The planning stage involves understanding the goals and desired objectives, and the diagnostics stage requires understanding of organizational processes in terms of their serving of the goals and desired objectives. The aim of the design/modeling stage is to develop a proposal for changes in the processes and define appropriate metrics to control for performance improvements. The proposal is to be implemented at the implementation stage, and performance results will be monitored and reported to management in the monitoring/control stage. Finally, adjustments will be applied in the refinement stage. Applying a BPM approach suits to this study because the aim is to adapt the existing sales process using game elements, which is not a radical transformation (Ko et al. 2009). In the next section, the developed gamification process framework is presented.

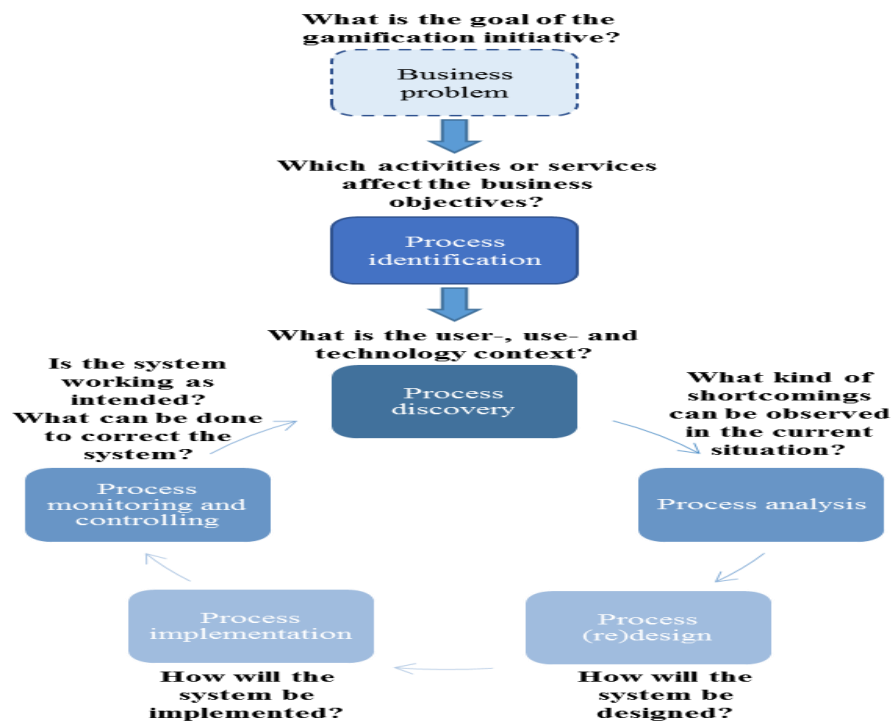**3. The developed gamification process framework**

Figure 1. The developed gamification framework: gBPM. Adapted from Dumas et al. (2013).

Following the review of various BPM models presented by de Morais et al. (2014), we adapted the model of Dumas et al. (2013) as a gamification approach, and it is called "gamifying Business Process Management" (gBPM) (see Figure 1). The gBPM aims to improve the performance of a business process using gamification. It has similar goals like the "classic" BPM approach, but the difference lies in the applied methods. BPM aims to redesign the sales process. Gamification, on the other hand, seeks to enhance the existing outcomes by improving the performances of the individuals. The focus shifts from the process itself to the activities, which are the parts of the process, and to the system where the activities are conducted. As shown in Figure 1, the framework has seven steps.

Business problem: Similar to the "6 Ds" framework (Werbach and Hunter 2012) the gBPM starts with a business problem. At this step the goals are written down, and the metrics for success are defined for each goal. Higher-level goals such as increasing the profitability should be avoided because they do not hint how gamification can help. Besides, they are affected by many other variables. For these reasons operational-level goals like increasing customer satisfaction, decreasing error rate or increasing worker motivation are better suited. In addition, it is important to distinguish between the goals and the means of achieving them. In this study, the lack of motivation was identified as the business problem by the management of the case company, and the objectives and the metrics were set together with the manager of the case company. Corresponding results are shared in section 5.1.

Process identification: The second step aims to understand the key activities of the sales process that lead to the accomplishment of the business objectives. Target activities should be specific and concrete, and if there are several activities that lead to the same goal, their relationship should be identified. In this study, the key activities of the sales process were identified following the observation of the sales process and discussions with the sales manager (see Figure 2 in section 5.2).

Process discovery: At this step the current process is described by defining the user context, use context and technology context (Oinas-Kukkonen and Harjumaa 2008). The user context includes identifying the roles of different users together with their needs, desires, goals, motivators, behaviors and characteristics. This is similar to the "describe the players" step of the "6 Ds" framework (Werbach and Hunter 2012) and the "understand the players" step of the "Player Centered Design" framework (Kumar 2013). The use context describes the activities where the enhancement of motivation would improve the business outcome. This includes understanding the reasons for engaging in these activities and the trade-offs for not engaging in them. Finally, the technology context defines what kind of technologies are applied in the use context. In this study, the user context was defined based on discussions with the manager and salespeople of the case company. The use and technology contexts were discovered through both the observation of the sales process and discussions with the manager and the salespeople. Corresponding results are presented in section 5.2.

Process analysis: This step aims to find shortcomings or conflicts within the current process that demotivate users. This requires reflecting the business goals to the current activity and finding out what changes could lead to improvements in motivation. The analysis provides a clear understanding of what should be addressed with gamification. Hence, it is of great importance for the success of the whole project, so sufficient time and resources should be allocated for this step. The analysis of the process was made in this study based on feedback received from the manager of the case company as well as observation of the sales process, and the corresponding results are presented in section 5.2.

Process (re)design: The materials collected in the previous steps are used for choosing the right game elements at this step by taking into account the principles of relatedness, competence and autonomy from the self-determination theory (Deci and Ryan 1985, Ryan and Deci 2000, Gagné and Deci 2005), and the flow theory (Csikszentmihalyi 2008). The first task is the development of suitable metrics for measuring success (Werbach and Hunter 2012). This requires finding a way to transform the behavioral outcomes to quantifiable results that the gamification system can use to generate feedback. Points can work as a generic measure, but the key task is to decide how to use them. If employees aspire to become better in their jobs, a certain progression should be included (Csikszentmihalyi 2008). The progression can be implemented by creating levels which are unlocked when the required amount of points is achieved. Additionally, levels can contain some special challenges which users must accomplish before proceeding to the next level. However, to promote the autonomy, it is good to define multiple challenges per level to choose from (e.g., accomplish at least 5 of the following 10 challenges). It can be advised to leave the amount of points invisible in cases when users find it too controlling. Connecting the company's trainings to the levels and giving badges for completing challenges might improve user motivation. Social aspects should also get attention in the process (re)design. If users have individual user profiles that are accessible by other users, the autonomy and relatedness dimensions might be improved. The profiles can be used to display user's achievements, status and recent activities. If users are identified as competitive, then leaderboards can be applied. If there is a doubt that the disadvantages might outweigh the advantages, then a milder version of leaderboards such as team leaderboards (e.g., region A vs. region B) or contextual leaderboards might be used instead. If there exists established social connections within the working community (e.g., from trainings or social gatherings), elements from social media like social feeds that display other users' actions can be used to bring the sense of dynamics to the system. When the plan is finished, it should be tested with some of the key users to find out its shortcomings. Getting the system right in the first time is not an easy task due to incomplete information. When the shortcomings of the design are solved, the system is ready to be implemented. In this study, the use of game elements in the (re)design of the sales

process was developed originally by the researchers and then reflected and revised based on feedback from the manager of the case company and the salespeople. Corresponding results are presented in section 5.3.

Process implementation, monitoring and controlling: The implementation, monitoring and controlling steps of the gBPM correspond to the similar steps in the BPM process (see Dumas et al. 2013). As shown in Figure 1, the development process is a continuous activity in that feedback is collected from users about the implementation, and based on this feedback, the process is further developed by reassessing the identified problem. This study ended at the process (re)design stage. We recommend process implementation, monitoring and controlling to company management.

4. Methodology

4.1 Research design

The methodology of the study is design-based research (Brown 1992, Collins 1992). Design-based research aims to increase the understanding of a subject and simultaneously solve a practical problem like the improvement of a product, a service or a process (Kananen 2013). It is an iterative and interventionist approach which takes place in a naturalistic context (Barab and Squire 2004). It can be defined as a systematic but flexible methodology aiming to improve practice through iterative analysis, design and development, based on collaboration among researchers and practitioners in real-world settings (Wang and Hannafin 2005). The strengths of design-based research are the opportunity to learn unique lessons in solving a problem, the yield of practical solutions that can be directly applied, and the resulting concurrent improvements of practice and theory (Edelson 2002). It suits well to the objectives of this study, which is also supported by the fact that it has been applied in earlier gamification literature (see Korn 2012, Blohm and Leimeister 2013, Müller et al. 2015). In design-based research the researcher is expected to move beyond creating a particular design and generate evidence-based claims that enhance the theoretical knowledge of the field (Barab and Squire 2004). Design-based research is pragmatic, and aiming for change, it uses the logic of abduction whereby there is an interplay of theory and empirical data in solving the problem (Kananen 2013).

The empirical study for this research was conducted at a multinational telecommunications company located in Finland (the names of the company, the sales manager and the salespeople were asked to be kept anonymous). The development object is the sales process at the telecommunications company, and the design is a gamified solution to improve the motivation of the salesforce. Research, analysis and design were conducted intensively in cooperation with the sales manager through the first five steps of the developed gBPM framework (see Figure 1). Given the resource constraints, the last two steps (implementation, and controlling and monitoring) were not part of the empirical study since these steps require the programming of the system, putting it into use at the telecommunications company, and comparing performance results after a period with the current system. These steps are recommended for future research. The developed design is deeply rooted in the self-determination theory and the flow theory that have been applied in gamification, and the results contribute to the gamification literature.

4.2 Data collection and analysis

The collected data was primarily qualitative, and data collection and analysis went hand in hand during the five steps of the gBPM framework in close cooperation with the sales manager. During the design process there were four interviews with the sales manager of the company (conducted in Finnish, the native language of the interviewee and one of the researchers) and two field observations. The interviewee has been working in the company already for seven years, first as a sales representative and later as a sales manager. Thus, he had a deep understanding of the sales process. He was also well-informed about the motivations of the salespeople from the performance review discussions documented at the company. Interviews were summarized and written down immediately after execution, and field notes were taken from the observations. The first interview was conducted in an unstructured manner in order to gain an understanding of the business problem. This interview revealed that motivation of the salespeople was a problem. The next two interviews were semi-structured, and during these interviews, more information was acquired about the sales process, the user context, the use context, and the technology context. In order to validate the findings from the interviews, a field study was made, and the salespeople were observed while conducting sales. In addition, a hands-on presentation of the reporting system was received to better understand the reporting context. This was the second field observation. Based on the two observations and the interviews, the sales process of the company was modeled using a flowchart, and a gamified design of the process was developed following careful analysis of contextual factors and using game elements presented in section 2.2.1. The suggestions about the gamification of the sales process were shared with the sales manager in advance for review, and estimations for further improving the developed solution were received during the fourth interview. Finally, the developed design and its potential to increase motivation were

discussed in two separate group interviews: one with two salespeople from the case company, and another with two salespeople from a company in the Finnish electricity production and distribution industry. These interviews, which were conducted in English (due to second researcher's lack of proficiency in Finnish) gave additional insights about the potential of the proposed solution and its applicability to other sales contexts.

4.3 Validity and reliability

Validity refers to both the sense making of the findings (i.e. internal validity) and the extent to which findings can be generalized (i.e. external validity) (LeCompte and Götz 1982). Design-based research is challenged about its ability to determine the extent to which the observed effects are causally related to the design (Reimann 2011). Like all other qualitative research methods, it is also challenged for its limitations regarding generalizability of its findings (Barab and Squire 2004). Acknowledging these challenges, we followed the principles by Wang and Hannafin (2005) rigorously to achieve validity. First we supported the design with research from the outset of the project and linked it tightly to theoretical concepts in gamification and motivation. We also set practical goals and conducted the research in a real-world setting in close collaboration with the sales manager from the case company. Furthermore, we implemented the research method systematically and purposefully and triangulated data from various sources such as the sales manager, field observations, and interviews with salespeople. The interview with salespeople from a company from a different industry contributed to the external validity (i.e. generalizability) of the findings. It enabled us to understand to what extent the proposed solution can be applied to other contexts than the case company. Finally, we analyzed the data immediately, continuously and retrospectively, and as a result refined the design continuously.

Reliability refers to the independence of the research from the researcher, i.e. the extent to which the findings can be replicated by other researchers (LeCompte and Götz 1982). In order to achieve reliability, data was documented immediately for analysis purposes, and it was triangulated from reliable sources continuously during the research process.

5. Results

5.1 Business problem

The business problem concerned the shop-in-shop-sales channel and the ways in which gamification could be implemented to increase the salesforce's motivation. As reported by the sales manager, our key informant, based on observations carried out throughout the company by different sales managers and discussions with the salesforce, the problem was the lack of motivation of the salespeople. This could be observed when the salespeople were stopping to acquire more subscriptions after reaching their daily quotas. They were not actively seeking customers, but "chilling" at the sales booth without worrying about closing further subscriptions. Sometimes they were going home after reaching their quotas, which would leave the sales booth undermanned. It was reported that the salespeople did not enjoy the sales context because it did not offer them possibilities to fulfill their needs of relatedness, competence, and autonomy (Deci and Ryan 1985, Ryan and Deci 2000). Changing the compensation structures could improve the situation in the short term, but the management was not interested in increasing the sales budget for the shop-in-shop sales channel. Hence, material rewards were not to be offered. Gamification might be a solution to the business problem as game experiences can create value for users and enhance their motivation (McGonigal 2011, Huotari and Hamari 2012, Werbach and Hunter 2012). It is worth noting here that an improvement of the electronic reporting system alone will not be a sufficient solution since motivation is a human factor. There may also be other solutions, such as reengineering of the sales process. However, reengineering may demand radical transformation of the sales process which can be costly due to limitations of the system. Costly solutions are not welcome by the management: the whole sales channel was once before under a threat of abolishment due to the high-cost structure, but it was avoided with a vast cost-cutting campaign. For this reason, the company showed interest to improve the motivation of the salesforce while not making major investments to these activities. As a result, BPM was preferred over reengineering, and the improvement of the motivation of the salesforce through gamification was the business goal of this study.

5.2 Process identification, discovery and analysis

The key activities of the sales process are contacting a new customer, assessment of the customer's needs, making an offer to the customer, persuading the customer, sales transaction (closing the deal), and inputting data to the reporting system. The mapping of these activities is provided using a simple flowchart (see Figure 2).
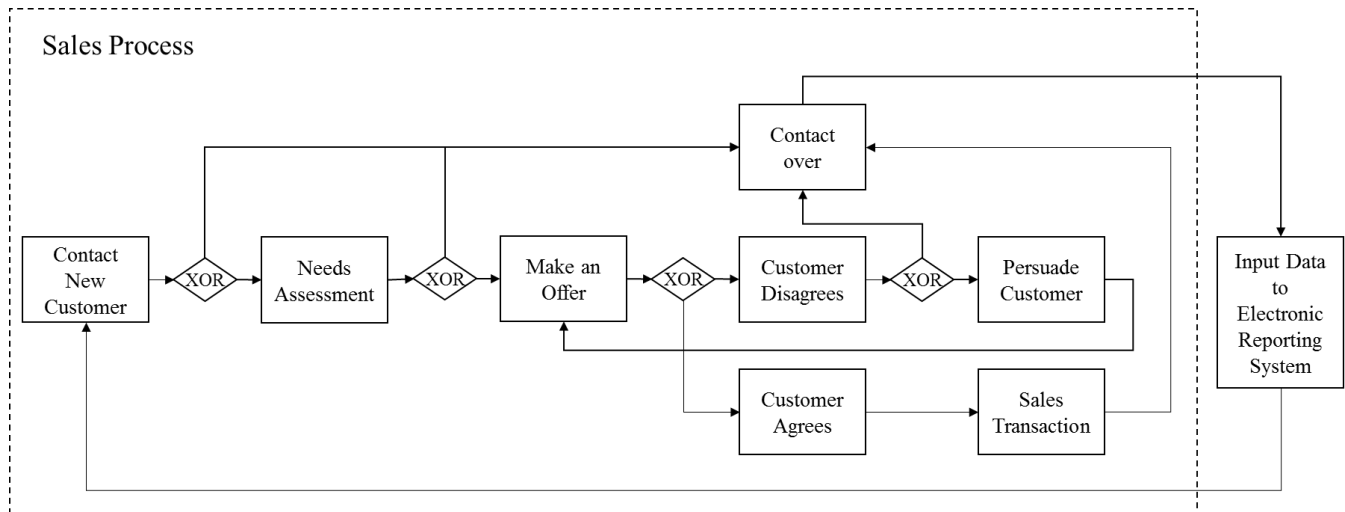
Figure 2. The sales process of the company (separated with dashed-line box).

The use context refers to the sales process. The sales process was proactive in that it started with the contacting of potential new customers by the salespeople. During the contact the salespeople tried first to assess the customers' needs. Then they proceeded quickly to discuss the selling of a new subscription. The sales deal would either be closed, or the salespeople would try to persuade the customer. Regardless of the outcome of the sales process, data about each encounter would then be recorded to the electronic reporting system of the company (see Figure 2).

The user context is the salesforce at the shop-in-shop-sales channel. The roles of the salespeople were to contact potential customers and sell them subscriptions. The interviews revealed that the salespeople were selected from personalities which would fit to the sales job. Good characteristics of a salesperson included the ability to identify with customers and understand their needs, good listening skills, self-direction, goal-orientation, responsibility, sense of urgency, and positive attitude. As the sales manager highlighted, too much customer-orientation was not desired from the new hires because "*they talked to the customers instead of selling to the customers*". Salespeople in the shop-in-shop-sales channel lacked the motivation for the sales profession, and their turnover rate had a growing tendency. However, it was revealed that they liked competition and favoured seasonal and brand-specific sales campaigns.

The technology context is the electronic reporting system. The current system had three limitations. First, it did not offer the possibility to see historical sales data. Lack of visualizations about the sales performance made self-monitoring difficult. Secondly, there were not any measures on how actively the salespeople contacted the customers in the shop. Finally, it was not possible to compare sales performances among peers, or between different sales points. Due to these limitations, the electronic reporting system failed to deliver value.

5.3 Process (re)design with gamification

The gamified sales system, which is called SalesG, aims to increase the motivation of the salespeople at the shop-in-shop-sales channel (see Figure 3).
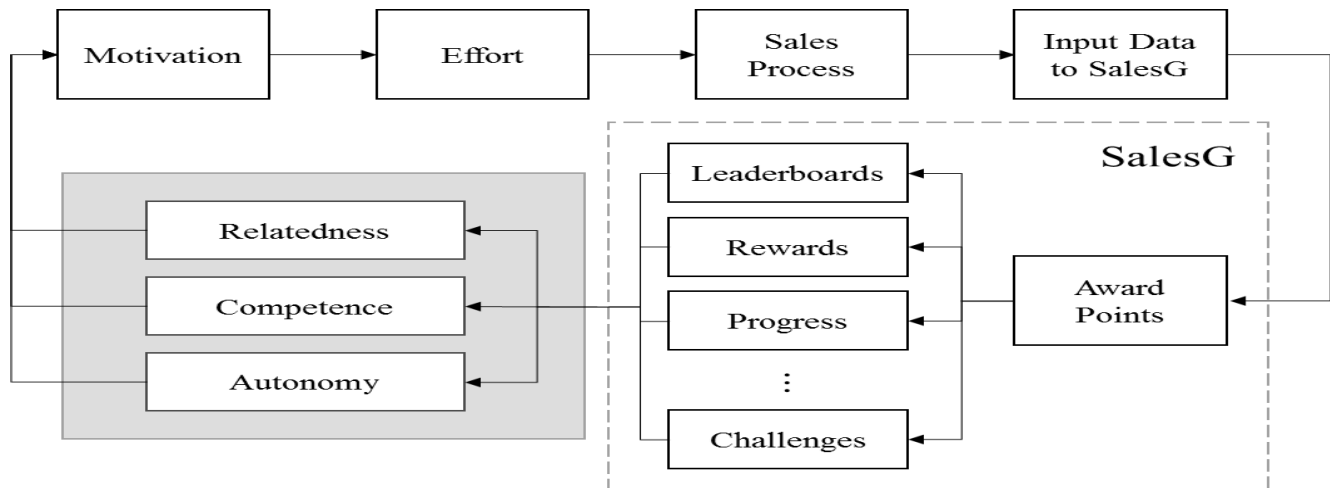
Figure 3. The gamified sales system (SalesG).

Initiated by the salesperson to sell a subscription to a customer, the sales process may result in outcomes like making a contact with the customer, giving an offer, or closing a sales deal. Gamification starts when the salesperson enters the outcomes from the sales process into the reporting system. This triggers a set of actions in the system in that points are given to the salesperson depending on the type of outcome and ideally. As a result, the ranking of the salesperson rises, leaderboards are updated, the team of the salesperson surpasses the neighbor region's team in the ranking, the salesperson receives virtual congratulations ("props") from the other team members in the social feed, and a badge is unlocked if a goal is achieved. The salesperson then receives new challenges to choose from (e.g., sell another subscription within next 60 minutes) and moves to higher levels in line with own performance. The feedback from the system gives the salesperson gratification in the form of visual cues, enhances the perception of self-efficacy, and motivates to close more deals. It also creates positive pressures in the team to try harder. These happenings may change the salespeople's motivation positively. The following game elements were used by taking into account the principles of relatedness, competence, and autonomy from the self-determination theory (Deci and Ryan 1985, Ryan and Deci 2000), and the flow theory (Csikszentmihalyi 2008).

1. Clear goals, point system and rewards: According to the gBPM framework clear goals must be set, and the metrics of success must be defined for each activity. The point system turns actions into numbers. In the sales process, the ultimate metric of success is the amount of subscription deals closed. Intermediate metrics such as the number of contacts and the number of offers made should also be used. As more contacts and offers may lead to more sales, they should also be compensated in the point system. The amount of points awarded for these achievements should correspond to the value of these actions for the company. Based on discussions with the sales manager, 1, 3, and 10 points are recommended for each contact, offer, and deal respectively. The point system is also recommended to take into account sales revenues from the different types of deals (e.g., pre-paid vs. flat rate).

2. Leaderboards: Leaderboards integrate the social context to the system and compare performances among salespeople and among sales teams. Hence, they address the relatedness and competence needs of salespeople. In the SalesG system there could be two kinds of leaderboards: one for the total amount of points which are awarded for contacts, offers and deals, and the other for points which are awarded for deals only. Since one single all-inclusive leaderboard might be demotivating for new salespeople, leaderboards for areas and regions, as well as leaderboards arranged by levels should be considered. Leaderboards can also be connected to badges (e.g., salesperson of the month). Occasionally, tournaments and duels can be used to complement leaderboards. These activities last for a pre-specified time-span and might involve some special awards for the winning salesperson or sales team. Team competitions are a great way to socialize for the salespeople. They motivate also the weaker salespeople because the effort of every member counts for the team, and they learn from the stronger salespeople in the team. The reward system should be designed in such a manner that improving the team's ranking should earn a reward for each team because winner-takes-it-all tournaments might have adverse effects on other teams. Competitions within the same team should be avoided not to damage the team spirit. The point system should also take into account the characteristics and sales potentials of different locations in different regions.

3. Progress, levels, challenges and achievements/badges: In the SalesG system levels address the competence and autonomy needs of the salespeople, and they provide a mechanism to keep the salespeople in the flow by offering challenges that meet their competences. Each level should offer new challenges, together with badges or rewards to keep the motivation high. The amount of levels should be decided in a manner that a normal salesperson is able to reach the highest level during the time when s/he stays in the respective position. A level can also be used as a handicap for tournaments.

Challenges represent the contents within a level which require the salespeople to do activities like contacting customers, making offers, and selling. Taking a challenge offers the salesperson a possibility to fulfill the need for competence. Self-defined challenges could serve to increase the sense of autonomy and increase the commitment to the goal. Challenges can be combined with a duration (e.g., sell 10 subscriptions during the day), a specific time (e.g., make a sale every day of the week before 11 o'clock), or social context (e.g., win 10 duels in a row) to offer choices for the salespeople. Involvement in team challenges should not be obligatory.

Achievements/badges are unique representations of the salesperson's skills which can be displayed in the salesperson's profile to signal status and accomplishments to others. Addressing directly the salesperson's need for recognition, they can be awarded for the accomplishment of challenges.

4. Feedback: Feedback is provided with the use of social feeds and profiles. Social feeds are implemented in the SalesG system in order to enhance the information flow among the salesforce. They allow salespeople to comment on the activities of their peers. As such, they fulfill the need of relatedness. Cheering up or congratulating for closing a sales deal are probably the most common uses of social feeds. Profiles display the salespeople's identities including demographic information about them and their performances to the other salespeople. Thus, profiles increase the visibility of the salespeople and contribute to the need of relatedness.

6. Discussion

This study designed a solution for improving the motivation of the salesforce at a multinational telecommunications company in Finland using game elements. This is an applied contribution to the relatively new gamification literature since it is the first study on gamification in the context of the sales process. Gamification is defined here as *"a process of enhancing a service with elements for game experiences in order to support the user's overall value creation."* (Huotari and Hamari 2012). This definition suits well to the sales context since it specifically addresses the context of services and value creation for the users, i.e. the salespeople in this study. The designed solution benefited from the principles of relatedness, competence, and autonomy in self-determination theory (Deci and Ryan 1985, Ryan and Deci 2000). Suggestions from the flow theory (Csikszentmihalyi 2008) were also taken into account. Contributing to the discussion on the use of intrinsic vs. extrinsic rewards (see Cameron and Pierce 1996, Deci et al. 2001), we agree with Nicholson (2012) that the gamified solution should select meaningful game elements for users following careful analysis of the user context, and the use of external rewards should not be emphasized. Indeed, by addressing the needs of relatedness, competence and autonomy, we take into account mainly intrinsic rewards which we believe are more impactful on sustaining high levels of motivation over the long-term.

The developed process framework, called gBPM, may be considered a second contribution of the study since it applies a new BPM perspective to gamification. Being an adaptation from the model of Dumas et al. (2013), it can be compared with similar frameworks in the gamification literature like the "6 Ds" framework (Werbach and Hunter 2012) and the "Player Centered Design" framework (Kumar 2013). Compared to these frameworks, the gBPM is an iterative process which does not expect to get everything right at the first time. In the empirical study, the first five steps of the gBPM were implemented, and the existing sales process was redesigned with the introduction of game elements by addressing the shortcomings related to the user context, the use context, and the technology context. Interviews with salespeople from the case company and another company from a different industry suggest that the proposed solution is promising to increase salesforce motivation. It is recommended for future research to implement the solution and measure objectively changes in motivation of the salesforce in order to test the promised benefits. In future research, motivation levels should be measured both before and after the implementation, and the difference should be tested statistically. Implementation demands developing relevant software, which is beyond the capabilities of the researchers. The lack of such a test can be regarded as a limitation of this study.

The empirical study applied the methodology of design-based research (Brown 1992, Collins 1992). This iterative, interventionist methodology suited very well to the purposes of the research in that a theoretical base integrating concepts from the self-determination theory, the flow theory and BPM literature was utilized in designing a practical solution to a managerial problem (Edelson 2002, Barab and Squire 2004, Kananen 2013). Furthermore, the close cooperation with the sales manager throughout the process was very fruitful in generating the solution (Wang and Hannafin 2005). As such, we recommend the further use of this methodology in gamification research, as it has been already utilized (see Korn 2012, Blohm and Leimeister 2013, Müller et al. 2015). Design-based research is challenged in the generalizability of its findings, i.e. its findings are context-dependent (Barab and Squire 2004, Wang and Hannafin 2005). The interview with salespeople from a company from a different industry aimed to overcome this limitation, and the results suggest that the solution can be applied also to sales processes at that company. We acknowledge that motivation factors can vary across cultures (Dubinsky et al. 1994, Moberg and Leasher 2011). Hence, the proposed solution may not apply to all salespeople in all countries. In

future research it is recommended to test the developed solution in other similar sales contexts in Finland or abroad, as well as other sales channels like phone calls.

The results of this study are important for sales managers who are eager to increase the motivation of their salesforce using gamification as a BPM tool in the shop/in/shop sales channels of firms in the telecommunications as well as electricity generation and distribution industries in Finland. Motivation of the salesforce is an important concern because it can lead to improved sales performance. In the proposed solution, a functional reporting tool is essential to run the point system smoothly. The point system awards increasing points to achievements in line with clearly set goals. The reporting tool should immediately update the points and keep the salespeople informed of achievements. The game elements of leaderboards, complemented with tournaments and duels, address the need for competence (Deci and Ryan 1985, Ryan and Deci 2000) and provide the motivation for contacting more customers while promoting co-learning within teams to achieve better results. The good design of team tournaments and duels should avoid competing for the same customers. Levels and challenges are important game elements for promoting progress. According to the flow theory (Csikszentmihalyi 2008) salespeople will lose motivation if they are under-challenged or over-challenged. Allowing them to choose the appropriate levels and challenges for themselves will increase motivation by satisfying the need for autonomy (Gagné and Deci 2005, Groh 2012). It is also recommended that the right challenge levels should be determined based on competences, and progress in the development of competences should be monitored for each salesperson periodically. Finally, the game elements of achievements/badges and feedback satisfy the need for relatedness (Deci and Ryan 1985, Ryan and Deci 2000). To summarize, meaningful game elements applied correctly to satisfy the needs of competence, autonomy, and relatedness can improve the motivation of the salesforce (Nicholson 2012).

Acknowledgements

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