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MASTER THESIS

TITLE IN LITHUANIAN	TITLE IN ENGLISH
Materializmo, žaismingumo, noro pritapti ir rizikos vengimo įtaka norui suteikti rekomendaciją sužaidybintoje rekomendacijų rinkodaros programoje	**The impact of materialism, playfulness, belongingness and risk aversion on intention to recommend in gamified referral marketing programme**

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INTRODUCTION

Using a technology to receive and share information or personal view has become a habit. The technology can facilitate enormous spread of personal view outside of close one particular people circle through social network, blogs, review sites, etc. (Ghosh et al., 2020). The web 2.0 give two-way many-to-many communication systems which empowers communication (Chu and Kim, 2011). Nowadays business aim to benefit from technology enhanced users communication by creating a referral marketing programs. Overall, referral marketing aim is to foster recommendation of service or product by providing benefits such us money, additional discount, promo codes, etc. (Abubakar et al., 2017; Jung et al., 2020). Wilson (2000) states that encouraging recommendation or Word-of-Mouth (WOM) is a cornerstone in marketing strategy aimed to use their current customers network in order to expand customers database by encouraging to share companies marketing messages. In business world, referral marketing programs is a tool to attract new and retain existing customers (Kumar et al., 2010). Different studies reveal the benefits of referral marketing programs include higher retention rate and overall value of customers acquired through referral marketing programs than other channels (Kumar et al., 2010; Wirtz et al., 2013). However, Jung et al. (2020) argue that design of referral marketing program is a challenging task because of demand to trigger not only extrinsic motivation (financial incentives) but also intrinsic motivation (desire to refer).

The study by Cao et al. (2021) investigated the combination of online referral programs with price promotion. This study revealed that discounts in paid referral program shape perception of product as being inferior quality (Cao et. al, 2021). The connection between level of self-efficiency, reward, and subsequent e-referral as well as reward type was investigated by Zhang et al. (2019). The study revealed that people reporting high creative-efficacy tend to be more responsive to gift reward while those with low creative-efficacy to cash reward and amount of the reward (Zhang et. al, 2019). A lot of studies are focused on willingness to participate driven by monetary incentives (Dose et al., 2019, Livin et al., 2013; Wirtz et al., 2019;). However, researchers agree that monetary incentives effectiveness cannot be guaranteed as it depends on many factors like the size of the reward, company's brand strength, relationship with customer, product innovativeness, etc. (Dose et al., 2019; Livin et al., 2013; Zhang et. al, 2019). Monetary incentives are an expensive tool to use to increase intention to recommend (Dose et al., 2019). Moreover, introduction of monetary incentives in marketing referral programs increases distrust in a referred product (Wirtz et al., 2013, Liyin et al., 2014). Furthermore, a study conducted by Wirtz et al. (2019) has shown that weak brands suffer more from monetary incentive introduction in their referral programs than strong brands. Weak brands

which introduced monetary rewards in their referral marketing programs experienced decrease of engagement because of the lack of trust of recommendation (Wirtz et al., 2019).

In the marketing field, gamification is used for various purposes: improve customer experience, grow brand awareness and loyalty, educate customers about products or services and, most importantly, increase conversion and profits (Mulcahy and McAndrew et al., 2021). The essence of games elements application in non-game context is to foster a particular behavior inside the gamified situation (Zichermann et al., 2011). In previous studies, the effect of gamification on fulfillment of basic psychological needs for social relatedness, autonomy, competence was revealed (Sailer, 2007; Xi and Hamari, 2019). Various research on work gamification revealed the positive effect on work enjoyment, productivity, minimize possibility of burnout (Gerdenitsch et. al, 2020; Ponis et. al, 2020). Hsu and Chen (2018) theoretically and empirically showed that gamified marketing activities influenced desirable customer behaviors. Gamification elements application has been analyzed in exercise gamification service (Koivisto and Hamari, 2014), trading service (Hamari, 2013) integrated marketing communication (Terlutter and Capella, 2013). In addition, gamification elements (points, leaderboards, levels) affects intrinsic motivation (Mekler et. al, 2017), performance (Landers et al., 2017) and impacts high and low brand loyalty (Mattke and Maier, 2021).

Different studies provide insights that the gamification application in marketing activities work as motivational tool which are used for promotion of engagement, participation intention, customer loyalty and positive response towards loyalty programs (Harwood and Garry, 2015; Hollebeek et al., 2021; Hwang and Choi, 2020; Zuo et al., 2017;). Beyond the research on gamification elements application towards loyalty programs with the aim to foster customer loyalty and intrinsic motivation to participate and engage, the research of gamification impact on intention to refer product or service is insufficient. In addition to this, there is no studies examining on how different personality traits might impact the evaluation of gamified system and intention to recommend as a result. Thus, the master thesis address new perspective by combining personality traits and gamified system evaluation as a factors which might impact intention to recommend. The intention to recommend is investigated through TAM and UTAUT theories constructs - perceived usefulness, enjoyment and risk which is impacted by personality traits such as materialism, playfulness, belongingness and risk aversion.

The problem of the master thesis how materialism, playfulness, belongingness, risk aversion impact perceived usefulness, playfulness, risk of gamified system and intention to recommend?

The main aim of the master thesis is to investigate how materialism, playfulness, belongingness, risk aversion impact the perceived usefulness, enjoyment and risk of a gamified system and, as a result, intention to recommend.

The objectives of master thesis:

1. To analyze the individual traits that affects intention to recommend from theoretical perspective.
2. To apply TAM and UTAUT models to analyze effect of perceived usefulness, enjoyment and risk on intention recommend from theoretical perspective.
3. To develop the methodology for empirical research in order to investigate the impact of factors on intention to recommend.

4. To collect and analyze data on different factors impact on intention to recommend.

5. Based on the findings of the empirical research, provide insights and recommendations.

The methods used in this master thesis is literature analysis and reliability and linear regression for statistical analysis of quantitative data.

The Master thesis consist of two theoretical chapters. The first chapter is dedicated to analysis of gamification and its elements. In addition to this, the TAM, UTAUT and other theories are analyzed with the aim to emphasize the perception of the system, defined as perceived usefulness, enjoyment and risk of gamified system, impact on intention to recommend. The second chapter is dedicated to analysis of individual traits and their effect on perception of the system and intention to recommend. In the third chapter, methodology of empirical research is presented. The fourth chapter is dedicated to empirical research results analysis and hypothesis testing. In the final part, summary of key points and recommendations for companies developing referral marketing programs are presented.

1. ENGAGEMENT IN REFERRAL MARKETING PROGRAMS

1.1 Gamification and gamification elements

The core idea of gamification is to use game elements for the purpose of engagement in activities while providing more entertainment in the process of doing certain activity that in other way might not be very pleasant for person. McGonigal (2011) summarizes this by stating that the reason for gamification usage in non-game contexts is that not all activities are naturally interesting and introduction of game features into these activities might make them more attractive. According to Kapp (2012), "game-based mechanics, aesthetics, and game thinking to engage people, motivate action, promote learning, and solve problems". While Sailer et al. (2013) emphasizes gamification as an innovative way to trigger motivation to engage in activities. The motivation trigger is a game element which is applied in non-game context addressing different motivational mechanisms Sailer et al., 2013). Gamification elements are the main components of gamification concepts, and they are important for defining the more completed gamification concept.

To consider activity to be gamified, it must share some key features that form the basis of any game. McGonigal (2011) presents four core characteristics without them it would be impossible to create a game. The four characteristics are (McGonigal, 2011):

- **A goal** is thing players are trying to attain in the game and which gives game or gamified activity sense of purpose.
- **Rules** purpose is to limit the ways of how goals can be achieved by creating limitations which makes harder to accomplish wanted outcome. However, rules are necessary to stimulate strategic thinking and engagement into activity.
- **Feedback system** is one of the most important and widely described characteristics. The feedback system informs players' progress towards achieving the goal. Real-time feedback ensures players that a goal is achievable and fosters players motivation to continue activity. Most frequently used feedback systems are points, levels, scores, leaderboards, etc.
- **Voluntary participation** – acceptance of pre-set goals, rules and feedback creates the common ground for multiple players to play together and experience pleasurable activity.

Thus, games and gamified activities share the main core idea – being a well-planned set of goals and rules that creates a system which is exposed to the player by using feedback system. The core 4 features defining game are present in any gamified activity. Gamification is broadly analyzed in management literature and in addition to the core game elements, literature analysis revealed that gamification has a wide range of elements defined by different authors. However, there is lack of

clear terminology and taxonomy of game elements because authors use different terminology to describe same game elements. This notion is supported by Schobel et. al. (2020) who identified that main challenges of elements taxonomy are incomplete list of elements, different or very generic classification of elements, missing presentation of features, missing validation of other authors developed taxonomy. One of the ways to classify gamification elements is to invoke Hunicke, LeBlanc, Zubeck (2004) MDA (Mechanics, Dynamics, and Aesthetics) framework. According to this model, gamification elements differ from one to another based on their abstraction level. Table 1. depicts main components and their definitions.

Table 1. *MDA framework* (Hunicke, LeBlanc, Zubeck, 2004).

Level of abstraction	Component	Definition
Concreate	**Mechanics**	Most concreate element which defines a specific component that can be used in the game (Hunicke, LeBlanc, Zubeck, 2004).
	Dynamics	Dynamics defines the interaction between the mechanics acting and player over time. (Lavoué et al., 2018).
Abstract	**Aesthetics**	Most abstract element which defined expected emotional response of the player when interacting in gamified activity (Hunicke, LeBlanc, Zubeck, 2004).

In this paper, MDA framework is used to classify the different game elements found in scientific literature. The following game elements was identified by different authors and are presented in this paper with the aim to describe the variety of elements that can be used by practitioners developing or planning to develop the gamified activity to support users' engagement in referral marketing programs. Moreover, all elements are classified according to MDA framework from most concrete to most abstract. The elements can be defined as game **mechanics:**

- **Badge:** visual element that informs user and other about users' achievements while doing activities requested (Akasak et. al., 2016; Schobel et al., 2020).
    - **Bonus:** is a reward for accomplishing goals. Sometimes, it can be given as an additional reward for sequence of successfully accomplished goals. A badge can be given for the successful completion of 10 activities (Schobel et al., 2020).
    - **Choice:** non-linear gameplay where user have autonomy to choose among many possibilities (Harteveld, Sutherland, 2017).

- **Collection systems** measure players progress by enabling players to collect scores or items, trade them as well as managed collected resources (points, items, etc.) which has impact on overall player score, and they manage items scores or items which every time are added to overall score / item list (Akasaki et. al, 2016; Schobel et al., 2020).
- **Customization / Personalization:** the ability to personalize system's interface, decorating virtual space or creating of user avatar which is modified by the players (Tondello, Mora, Nacke, 2017; Schobel et al., 2020).
- **Easter egg:** unexpected game response of the specific action taken by the player. Unexpected response can occur as unpredicted gift, event, lesson, etc.. (Tondello, Mora, Nacke, 2017; Klock et. al., 2020).
- **Feedback:** provides users with relevant information considering their performance, reasons for failure or successful accomplishment of the activity. Feedback helps users to monitor their actions and give understanding about game state (Schobel et al., 2020).
- **Gifting:** Allow user not only to get gifts but also share resources with other which triggers altruism and satisfaction of player (Tondello, Mora, Nacke, 2017; Klock et. al., 2020).
- **Leaderboard:** is one of the most mentioned game elements in literature. In leaderboard, players are ranked according to well-defined and known for all players criteria such us points, levels, etc. Leaderboard is commonly used for performance comparison (Borges et. al, 2016; Tondello, Mora, Nacke, 2017; Schobel et al., 2020).
- **Level:** visualization of players gradual growth towards specific goals which helps to track players performance over time and experiences through distinct levels (Borges et al., 2016; Monterrat, Lavoué, George, 2017; Schobel et al., 2020).
- **Lottery:** sometimes unexpected element in game that requests player engagement in presented activity (e.g., quiz) and promise prizes in case of win. Sometimes, it can be random and unexpected element (Tondello, Mora, Nacke, 2017; Klock et. al., 2020).
- **Narrative** creates story by connecting different game elements (Klock et. al., 2020). **One-Time Narratives:** Narratives that tell the same story in chronological sequence for all players in the system (Schobel et al., 2020). **Processing Narratives:** Storytelling is more adaptive to players acted and activities and storyline can be different for different players (Schobel et al., 2020).

- **Point:** A point is a numerical unit which helps to indicate the player's progress. Points can be used to rank players in leaderboard or attain some level (Borges et al., 2016; Schobel et al., 2020)
- **Progress Bar:** Progress bar demonstrates players progress without exposing players performance to other players. This makes comparison of different players impossible, thus, players are not challenged (Schobel et al., 2020).
- **Reminder:** Presents player with history of their past actions and helps to visualize action taken (Schobel et al., 2020).
- **Prize:** is a reward player wins as an outcome of successful completion of task / action (Schobel et al., 2020).
- **Time manipulation –** determined time during which task / action should be completed by the player (Schobel et al., 2020). Time in a game can be manipulated with timers, deadlines, countdowns (Klock et. al., 2020).
- **Unlockable:** unique content or features available only for a specific player which done the actions requested (Lavoué et al., 2018).
- **Virtual goods –** assets with a perception in the game that can be purchased or traded which creates virtual economy (Schobel et al., 2020).

The set of mechanics used for creation of a gamified activity vary depending on the response gamified activity creator wants to induce. In other response – dynamics which are more abstract than mechanics and defines the user response to a set of mechanics. The **game dynamics** common in gamified activities are stated below.

- **Rewarding:** a reward system relates to tasks and activities which successful completion unlocks rewards. Rewards can be different such us prizes, bonus, additional points, levels, etc. (Klock et. al., 2020; Schobel et al., 2020). In some cases, rewards schedules can be used to maintain user engagement throughout the time, especially, if users are expected to have a high engagement in long sessions of activity (Fernandes, Junior, 2016; Klock et. al., 2020).
- **Cooperation:** communication among users which might be allowed or not allowed depending on the design. If communication is allowed, users form **a social network** (Tondello, 2016; Schobel et al., 2020). Moreover, cooperation is related with other gamification elements such as **social status** and **social pressure.** While social status exposure gives opportunity to show off achievements (ranks, levels, etc.), social pressure

makes impact on people behavior through public comments, voting or creating fear of being excluded from the team or underestimated by another player (Harteveld, Sutherland, 2017; Klock et. al., 2020).

- **Competition:** Mechanics like leaderboard, rank, badges evoke a competitive spirit among different players who aim to achieve the same goal (Schobel et al., 2020).
- **Development:** Mechanics like progress bar or points provide user information about their over-time or one-time behavior (Schobel et al., 2020).
- **Users' involvement:** Mechanics (customization of user interface, user avatar) requires partial or full users' involvement. In addition to this, it can be prescribed activities by gamified activity designer such us number of points for a specific action, but user has possibility to choose what action to take and points to earn. (Schobel et al., 2020).

Dynamics can be categorized into 2 groups. Simple dynamic is created by gamified activity creator while complex dynamic is a merge of mechanics and other dynamics (Junior, Silva, 2021). Dynamics creates the emotional response of engaged user, and this response is defined as aesthetics. Different aesthetics define different emotional goals that the user aims to achieve. The 8 aspects of aesthetics aim are to define players feelings using more specific description of emotions rather than overly broad "fun" (Kusuma et al., 2018). **Main aesthetics:**

- **Expression** – goal is to provide self-discovery while giving the possibility for player to leave their mark by collecting points and achieving new levels, reaching personal and game records which exposed to all users in leaderboard. Moreover, personalization such us character customization and user interface, of avatar (Hunicke, LeBlanc, Zubeck, 2004; Kim, 2015).
- **Sensation –** goal is to create pleasure by providing a sense of strong characteristics of engaging senses – game visual designs, sound effects, etc (Hunicke, LeBlanc, Zubeck, 2004; Junior, Silva, 2021).
- **Fantasy –** players' fantasy is invoked by exposure of a fictional world, alternative reality which player are experiencing while playing (Junior, Silva, 2021).
- **Narrative** – the "fun" is induced by captivating storyline that resonates with players interests, experience and play a significant role in increasing players engagement and interest in a game and its elements (Kusuma et. al, 2018; Junior, Silva, 2021).
- **Challenge** - the pre-set situation which requires player's effort to figure out solutions to overcome challenges to complete mission, achieve goal or be rewarded (Barata, 2016;

Klock et. al., 2020, Schobel et al., 2020). The gamified activity induces competitiveness and fun emerges from overcoming challenges (Kusuma et. al, 2018).

- **Fellowship** – fun arises building a social relationship and social circle with friends, family, or other gamers (Hunicke, LeBlanc, Zubeck, 2004; Kusuma et. al, 2018).
- **Discover –** fun arises from testing out new strategies, discovering the new game elements, challenges, tasks (Kusuma et. al, 2018).
- **Submission –** connection and devotion to the game (Kusuma et. al, 2018).

Thus, the gamification has a variety of mechanics and dynamics which creates the aesthetics of the game. According to Koivisto and Hamari (2019), the most commonly analyzed elements in gamification studies is points, scores, challenges, badges, leaderboards, etc.. However, gamification elements have to be applied following the 4 main game characteristics presented by McGonigal (2011) in order to create a gamified system. The gamified system is a set of gamified elements and rules of a game that triggers user's interest. The main motivation to apply gamification elements derives from a belief that gamified system can be used as a trigger for users intrinsic motivation even for those activities that user might not have an initial intrinsic motivation.

1.2 Gamification impact on motivation

To understand the intention to recommend, it is needed to get insight into motives behind individual behavior. The important thing for implementing gamification into referral marketing programs is to understand how to encourage clients to become referrers of companies' products and services (Jung et al., 2020). The willingness to participate in referral marketing programs can be encouraged by external motives (financial incentives) and intrinsic motives (desire to refer) (Jung et al., 2020). Intrinsic motivation is triggered by expected pleasure as an outcome from the activity engaged (Carbonneau et al. 2012). While extrinsic motivation is driven by value or benefits separated from the task like rewards, punishments, ego, approval from others, etc. (Deci and Ryan, 1985). Overall, both motives derive from natural psychological human needs. To encourage intention to refer, referral marketing programs should aim to stimulate one or both types of motives. Thus, referral marketing design should implement triggers – extrinsic or intrinsic ones.

Gamified activities aim to nurture intrinsic motivation by increasing enjoyment and pleasure out of the task. The core of gamification is that it seeks for voluntary and intrinsic motivation triggered users' engagement which, as a result, converts to achievement of companies predefined objectives and value for a company or brand (Houtari and Hamari, 2012). However, researchers do not reach consensus on gamification impact on intrinsic motivation. Some studies (Hanus and Fox, 2015)

revealed a negative gamification impact on intrinsic motivation. Hanus and Fox (2015) study revealed that students of gamified course reported lower scores and motivation compared to those in non-gamified course. While studies by Mitchell et al. (2017) and Mekler et al. (2017) showed no impact on intrinsic motivation after the introduction of game elements (Mitchell et al., 2017; Mekler et al., 2017). The game elements like leaderboards and levels boost performance of simple tasks but did not affect intrinsic motivation (Mekler et al., 2017). Additionally, the perceived enjoyment and interest did not change with introduction of game elements (Mekler et al., 2017). In contrast to these findings, many studies revealed positive relation between gamification and intrinsic motivation (Ibanez et al., 2014; Su, Cheng, 2015; Xu et. Al, 2021). The positive relation between games' element introduction and motivation was found in gamified learning process. Introduction of game elements in the learning process leads to better learning performance and higher motivation compared to those exposed with non-gamified learning system (Ibanez et al., 2014; Su, Cheng, 2015). The contradicting results imply that positive impact of gamification on intrinsic motivation is case specific. In case of positive gamification impact, boost of the enjoyment of the task, performance and motivation can be expected.

The gamification impact measurement build on well-established theories such us the **Technology Acceptance model (TAM)** (Davis, 1989) and **Unified Theory of Acceptance and Use of Technology (UTAUT). TAM** (Davis, 1989) is one of the most widely used models to explain technology acceptance and usage. This model includes 2 constructs which impact intention to use – *perceived ease-of-use* and *perceived usefulness* (Davis, 1989). According to this theory, individuals evaluate efforts and time needed to receive benefits provided from innovative technology acceptance in their routine (Davis, 1989; Venkatesh et al., 2003). The use of application or new technology is based on individuals' belief that it helps them to do their job better (*perceived usefulness*) and it is not complicated to implement new technology (*ease-of-use*) (Davis, 1989; Venkatesh et al., 2003). In this theory, the perceived usefulness is job effectiveness, productivity and importance for job execution (Davis, 1989). The extension of TAM model is UTAUT which suggests 4 constructs - *performance expectancy, effort expectancy, social influence and facilitating conditions* (Venkatesh, 2003; Shachak et. al, 2019). Both of the theories are commonly used to predict the individuals' perception and acceptance of information systems or new technology (Venkatesh et al., 2003; Shachak et al., 2019). Thus, the TAM and UTAUT model is foundation for gamification impact on intention to recommend measurement in this thesis.

To understand better the system acceptance, in previous studies researchers extended the original TAM and UTAUT by additional constructs. The need for more accurate evaluation of the

behavioral intention factors, the original model was extended by self-worth, risk, trust, security by Khalilzadeh et al. (2017). Additionally, Chao (2019) added 2 more variables perceived enjoyment and satisfaction to predict of m-learning system. Furthermore, Sarosa (2009) add perceived enjoyment and brand reputation in their survey on new students' acceptance of iPad. Slade et al. (2015) extended the TAM by perceived risk and innovativeness to predict mobile payments adoption. Furthermore, the new construct of Disturbance concerns was introduced to analyze the factors that impact technology acceptance by Lai et al. (2009). The overview of different studies revealed that UTAUT and TAM model constructs are not enough to fully evaluate people's behavioral intentions. Based on presented studies, the final adaptation was done of TAM and UTAUT models for this thesis. Thus, to predict intention to recommend, the perceived usefulness, perceived enjoyment and perceived risk were chosen as dependable variables. These variables are presented in following subsections.

1.3 Perceived enjoyment

Perceived enjoyment is an intrinsic motivational factor which derives from internal satisfaction and interest to perform action (Carbonneau et al. 2012). In contrast to carrying out action out of perceived usefulness, the enjoyment rises from the activity itself as being perceived interesting and enjoyable to carry out by individuals (Davis et al., 1992). The task carrying out for no external benefits, only for internal satisfaction is defined as flow experience (Carl, 1994). The perceived enjoyment is related with the state of flow (Lee, Chen, 2010). The flow is defined by four dimensions – concentration, enjoyment, time distortion and telepresence (Lee, Chen, 2010). It is an optimal experience which provides a huge internal satisfaction which people are willing to repeat. (Csikszentmihalyi, 1987). The cornerstone of flow theory is that to achieve flow state one important condition must be present - a perfect balance between skills and challenge in a given situation (Csikszentmihalyi, 1987). Thus, seeking optimal experience, flow, encourages people to get involved in activities out of satisfaction rather than external benefits. However, daily life cannot provide well-designed situations to meet criteria of task complexity and skills balance required to trigger flow experience. In contrary, games and games element introduction to non-game context can.

Gamification in non-game contexts helps to achieve flow state. This notion is supported by García-Jurado et al. (2018) study on flow impact on different generations online behavior. Flow state contributes towards perceived enjoyment of e-commerce platform as well as increase concentration and temporal time distortions (García-Jurado et al., 2018). This is linked to intention to use e-commerce platform (García-Jurado et al., 2018). The study by Bauer et al. (2020) showed that overall enjoyment of shopping experience increased among people playing a shopping-related game without

any monetary incentives. Additionally, it demonstrates that gamification of shopping experience improves customers satisfaction and positive WOM intention to the same level as 20% discount (Bauer et al., 2020). However, the flow experience, perceived enjoyment, and intention to buy when exposed to gamified products is different among distinct age groups. The increase in age corelates with perceived less flow experience and enjoyments which lead to lower intention to purchase (Bittner, Shipper, 2014). The state of flow is achieved individually and is triggered by the game element's introduction. For younger people gamification corelates with an increase of enjoyment which is important to attain flow state. Thus, involvement in well-designed, user skills well-suiting gamified system should trigger flow state which improves user satisfaction and increases enjoyment.

The perceived enjoyment has a positive impact on intention to engage in activities. Numerous studies revealed that perceived enjoyment as one of the factors to engage in activities (Ramayah, Ignatius, 2005; Suki et al., 2011; Venkatesh et al., 2003). Ramayah and Ignatius (2005) discovered that perceived enjoyment together with perceived ease-of-use positively impact online shopping intention. In addition to this, Venkatesh et al. (2003) reported the interconnection between ease of use and perceived playfulness. Moreover, significant impact of enjoyment on intention to use 3G mobile services was reported among people who believed that 3g mobile services usage will be interesting (Suki et al., 2011). Furthermore, perceived enjoyment affects the individual attitude towards continued usage of the system more significantly compared to perceived ease-of-use and perceived usefulness (Praveena, Thomas, 2014). This study results are supported by Anton et al. (2013) study on e-books adoption. Attitude toward adoption was influenced by perceived enjoyment and usefulness (Anton et al., 2013). The favorable attitude towards e-books correlates with greater intention to adopt (Anton et al., 2013). Zhou and Feng (2017) found different impacts on intention to use between leisure and work contexts. The study (Zhou and Feng, 2017) on mobile video calling revealed that in leisure context intention to use video calls was more impacted by perceived enjoyment. Contrary, in work contexts the same intention was more affected by perceived usefulness (Zhou and Feng, 2017). Thus, perceived enjoyment is one of intrinsic motivational factors which has a significant impact on individuals' attitude and behavioral intentions. This impact is higher in contexts where people expect more enjoyment such as leisure related activities.

Thus, perceived enjoyment is an intrinsic motivation factor that plays a key role in people's engagement in actions. Playful and enjoyable activities creates a flow state and individuals seek for enjoyment motivates people to engage in activities even when incentives are not provided. In addition

to this, the perceived enjoyment increases together with the introduction of gamification in services or products.

1.3 Perceived usefulness

Perceived usefulness focuses on external benefits and can be defined as extrinsic motivation (Davis, 1992; van der Heijden, 2004). Extrinsic motivation is controlled motivation which stimulates particular action to avoid punishment or gain a reward (Deci, Ryan, 1985). In contrast, autonomous motivation means that actions are stimulated by internal interest, satisfaction, enjoyment (Deci, Ryan, 1985). According to Organismic integration theory (OIT), the extrinsic motivation is ordered according to the level of autonomy (Deci, Ryan, 1985; Gilal et al., 2021).

Table 1

Level of autonomy according to Organismic integration theory (OIT)

External regulation	Introjected regulation	Identification	Integration
Least autonomous			Most autonomous

Source: Deci, Ryan, 1985.

According to the theory, external regulation is the least autonomous and refers to actions avert punishment or seek award (Deci, Ryan, 1985). While introjection is still influenced by factors like punishment, fear, or guilt, it also includes ego (Nicholls, 1984; Zhao et al., 2014). This means that actions are carried out not only out of purely external pressure, but also some internal pressure which originates from ego induced internal need to gain recognition from others and maintain pride (Nicholls, 1984; Zhao et al., 2014). Identification and integration forms of extrinsic motivation are considered as more autonomous motivation (Ryan, Deci, 2000). Identification form of extrinsic motivation means individuals are actively engaged and in control of their behavior because of being conscious of its importance for themselves (Ryan, Deci, 2000). Integration is the most autonomous form of motivation and derives from internalization of goals and activity perception as valuable for self (Ryan, Deci, 2000). Thus, increase of perceived behavior value for self, increase motivation autonomy. Although, motivation for behavior arises from understanding the value of it – avoidance of the unpleasant outcomes – punishments, low self-esteem, guilt or achieve reward.

Different studies show the correlation between perceived usefulness and behavioral intention. Ha & Stoel (2009) identified that perceived usefulness together with trust and perceived enjoyment had a significant influence on intention to use e-shopping. The other studies (Yang et al., 2017) revealed that perceived usefulness positively impacts intention to engage in gamification and

customers' brand attitude. In addition to this, the perceived usefulness positively affects people satisfaction and continuous intention to use systems (Rohan et al., 2021). As perceived usefulness is an extrinsic motivation that derives from external values, the rewards are widespread practice to ensure for the usefulness for referrals (Davis, 1992; van der Heijden, 2004). Study by Chiu et al. (2018) reported that customers loyalty (intention to revisit or buy more) corresponds to the size of referral reward. The higher reward had a significant impact on customers' loyalty (Chiu et al., 2018). Increase motivation to carry out pre-defined action was reported by Ryu & Feick (2007) when introduction of reward for referral and referee has resulted in greater intention to refer (Ryu, Feick, 2007). Analysis of different studies revealed that the perceived usefulness is a predictor of extrinsically motivated behavioral intention.

Thus, people engagement in referral marketing programs and intention to act depends on perceived usefulness. Perceived usefulness is an extrinsic motivation. To trigger extrinsic motivation, many referral marketing programs use monetary incentives such us incentives – discounts, gifts, promo codes for referrals and referee. However, if people are only extrinsically motivated, the benefits removal or decrease in amount may lead to decrease in engagement. Perceived usefulness might not be only triggered by gain / awards. Game elements introduction in referral marketing programs can positively affect perceived usefulness by creating the perception of referral program as easy-to use and not time consuming. Overall, the perceived usefulness is benefits that could be not only monetary but also time saving or simplification of process.

1.4 Perceived risk

Risk can be defined as potential of negative opinion of individual from friends, acquaintance or any society member towards individuals actions (Maziriri, Chuchu 2017). Social risk increases with publicly consumed goods such us clothing (Lantos, 2015) and visible outcomes of people decisions (wearing unconventional clothes, joining communities, etc.) or views (political, etc.). Perceived risk is a subjective expectation of unpleasant outcomes that might be expected if ones actions are against friends, acquaintance or any society member expectations, for example, rejection, judgement, blaming, etc. (Maziriri, Chuchu 2017). People attitudes and intentions are monitored, evaluated and, in most cases, adjusted to meet pressure from outside by their subjective norms (Kim et al., 2009). The subjective norms are claimed to be a one of intention effecting factors in the theory of planned behavior (TPB) (Ajzen, 2011). The theory aims to explain behavior intentions which are affected by people's beliefs, subjective norms and perceived behavioral control impacts people's intentions and behavior (Ajzen, 2011). In addition to this, social norms, values, and beliefs introduced by

close people are easily adopted and internalized (Vansteenkiste et al., 2010). Thus, perceived risk is affected by internal emotions, values, assumptions as well as external pressures like set of group values, behaviors, expectations.

Perception of risk is related to subjective norms which affect the evaluation of benefits of behavior people intend to engage in. Numerous studies of technology adoption have confirmed this notion. The study by Yi at al. (2015) found that perceived usefulness was affected by subjective norms via image. The result is supported by Rejón-Guardia et al. (2020) study which found indirect effect of subjective norms on intention to use Google apps and direct effect on usefulness through social image. In addition to this, the subjective norms positive impact on usefulness of the learning management system (Binyamin, 2018). The interconnection between social norms and perceived usefulness can be explained by stating that perceived usefulness by other group members and the assumption that other people expect individual to use system results into internalization of perceived usefulness (Schepers & Wetzels, 2007). Thus, the studies revealed that the individual sees the greater value out of those behaviors that please other members of the group and enhances personal image. In addition to this, individuals judgement on his behavior is impacted by individual's awareness of possible groups' judgement on behavior he conducted.

Furthermore, fear of rejection could be considered as a social risk which impacts people's attitude and behavioral intentions. The risk of social exclusion encourages people to modify their behavior with the aim of recovering community acceptance (Kawamoto et al., 2015). One of an important determinant of the extent to which people tend to experience stronger fear of social rejection and as a result do not engage in activities that might be against peer expectations is age (Blakemore, 2018). Adolescents (age 12 – 18 y) are more likely to experience fear of social rejection rather than adults (Blakemore, 2018). In addition to, lower self-esteem increases the negative effect of peer rejection on individuals' well-being (Blakemore, 2018). The fear of rejection contributed toward greater behavioral intention of reviewing dating profiles in the study conducted by Alba (2021). In addition to this, risk of social exclusion impacts the adults' decisions as well. The study of Ultimate game conducted by Ding et al. (2014) revealed that participants tend to sacrifice their self-interests satisfying offer and demonstrate fairness by proposing fair offers to other study participants not out of fairness, but out of fear of rejections. Moreover, the risk of being excluded, ignored, and avoided by others impacts people's intentions to share opinions (Neubaum and Krämer, 2018). The risk of being judged was found to be a predictor of avoidance of expressing minority opinion in online channels where this opinion is exposed to vast of people (Neubaum & Krämer, 2018). The fear of

rejection originates from the natural human need to belong, and it shapes people's attitudes and behavioral intentions. Fear motivates people to look for avoidance strategies such as not engage in activities that might cause disapproval of others or disengagement from current activities with the intention to disclose support for group values or behaviors and regain social acceptance. Thus, social risk – fear of rejection might discourage people to participate in referral marketing programs and recommend products or services.

Perceived risk is a subjective assumption of other people judgement on taken action by individual. Calculation of this kind of a risk is subjective and based on internal emotions, individuals' traits and assumptions built on previous experiences and society values, rules, expectations. Additionally, social risk derives from society pressure to meet set of group values, behavior, expectations. These are the main reasons of dependence of higher perceived risk on a visibility of an taken action outcome or goods as well as services used by individual. Thus, individuals participation in referral marketing program and a recommendation of a product to other groups members are visible action and perceived risk is an important factor which individuals are considering before taking actions.

The gamification are widely used to impact the overall individuals perception on system. The main aim to include gamification elements into any system is to increase intrinsically motivated behavioral intention. In terms of referral marketing programs, the expected outcome of gamification implementation is an increase in intention to recommend products or services. Analysis of previous studies revealed that gamification is linked to higher perceived usefulness and enjoyment of the system. On the other hand, recommendation of product and service is a visible to others action and its intention might be impacted by perceived risk at given time. Thus, individual tends to monitor and adjust their behavior in favor of being approved by others and avoids negative emotions such us rejection and self-image harm. The intention to recommend using gamified system is evaluated by dependent variable, adapted from TAM and UTAUT, perceived enjoyment, perceived usefulness and perceived risk. However, perception of gamified system enjoyment, usefulness and risk is very subjective and dependable on personality traits.

2. INDIVIDUAL TRAITS

2.1 Materialism

Materialism – the level of importance of acquisition and possession of material objects in individuals' life (Burroughs et al., 2002; Ward et al. 1971). Different purposes of use of the material objects defines the line between instrumental and terminal materialism. Instrumental materialism is considered when material objects can be used to attain meaningful objectives like safety, higher life expectancy, etc. (Csikszentmihalyi and Rochberg-Halton, 1981). Opposite to instrumental materialism, terminal materialism is focused on acquired object usage for exposing higher status and power (Csikszentmihalyi and Rochberg-Halton, 1981). Taking into consideration Maslow's hierarchy of needs, materialism is the tendency to concentrate on lower such us safety or material comfort order needs over higher order needs such as self-actualization, personal growth (Inglehart, 1990). Larsen et. al (1999) sees materialism as socio-cultural phenomenon when people in society value material things highly and materialistic values can be transferred from one society member to another (Larsen et al., 1999). Thus, in literature, materialism is defined as personal value, personal trait or socio-cultural value. However, the bigger focus is put on materialism as a personal value and trait.

Materialism as a personality trait is linked to increased importance of possession on individuals' happiness and self-image. According to Belk (1983), materialistic personalities tend to desire to acquire other people's possessions (envy), are unwilling to share or donate and detain control over objects. In addition to this, a materialistic individual's goal is a prominent level of consumption and high level of consumption is an important way to attain happiness and a well-being in life (Richins and Dawson, 1992). The distinguishing feature of materialism is that acquisition provides more happiness than other means (interpersonal relationship, career achievements, etc.) (Richins and Dawson, 1992). Moreover, possession-defined success refers to evaluation of success and well-being by the amount and quality of material objects acquired (Richins and Dawson, 1992). This notion is supported by Burroughs and Rindfleisch (2002) who stated that highly materialistic individuals' well-being tends to be linked with possession of materials objects (Burroughs and Rindfleisch, 2002). They seek for social status, power in society, and control over the material world by consumption (Burroughs and Rindfleisch, 2002). So, materialism is positively related with impulse buying, status and conspicuous consumption which could imply that possession of material subjects is a sign of high status (Donatelly et al. 2016; Türk and Erciş, 2017). Thus, materialism is based on consumption and things attained through consumption. The consumption and ownership of material objects is a way to pursue happiness, satisfaction, and well-being in life while other, more hedonistic ways of happiness

become in second plan. Most of the authors view and describe materialism as being a negative trait of people. Thus, materialistic people seek happiness from external goals such as money, status, appearance or amount of possession of material subjects.

Materialism is seen as a problematic and negative correlation between materialism and human well-being. According to aspirational index developed by Kasser and Ryan (1996), materialism can be defined as a function of intrinsic and extrinsic goals. Intrinsic goals (self-acceptance, affiliation, physical health, etc.) are the goals innately delighting to pursue due to the fact of fulfillment of psychological needs (Kasser and Ryan, 1996; Schmuck et al., 2000). While extrinsic goals are pursued out of expected rewards such us financial benefits, social approval, and recognition (Kasser, Schmuck, Ryan, 2001). Highly materialistic individuals tend to undermine their psychological needs and get involved in activities that could work against their well-being but serve for their extrinsic goals (Kasser and Ryan, 1996; Schmuck et al., 2000; Wang et al., 2017). This notion is supported by several studies. Nagpaul et al. (2017) loss of autonomy which is primary psychological harms psychological well-being because materialistic people might experience lack of commitment and sense of interest then praises and rewards are not present (Nagpaul et al., 2017). Study done in China revealed that materialism indirectly effects individuals' well-being as highly materialistic individuals undermine their psychological needs fulfillment which led to decrease of subjective well-being and increases risk of depression (Wang et al., 2017). Other research has found that progress at and attainment of set of goals for money, image, and popularity do not improve well-being but contributes to ill-being (Niemiec, Ryan, Deci, 2009). Furthermore, Ditmar et. al. (2014) found out the correlation between cultural setting and materialism. People who live in more hedonistically oriented cultures associate material subject possession and acquisition with lower well-being (Ditmar et. al., 2014). In contrast, economically developed nations experience stronger internalization of materialism due to society pressure, high promotion on consumerism via media, advertising (Ditmar et. al., 2014). Negative correlation between well-being and economically developed nations was found as well. However, reasons of this were non-cultural (Ditmar et. al., 2014). Kasser (2003) contributes towards expansion of reason by distinguishing several more specific reasons explaining the negative relationship between materialism and well-being. Thus, the link between materialism and well-being is found to be negative.

The materialism can be a part of the culture where members of materialistic culture value more material objects rather than hedonistic. In materialistic culture, conspicuous consumption is common as people feel the need to prove themselves for others same culture members by obtaining more and

more material objects. Active marketing contributes toward this view. In addition to this, the material subject possession and acquisition is seen as enhancement of personal well-being even the different studies proved the contrary. Materialism is a personal value which effect the perception of the surrounding world and perception of value. Materialistic people tend to engage in activities for the seek of gain or reward. Absence of reward might lead to disengagement and lower perceived usefulness of behavioral intention even it address people psychological needs. Thus, the materialistic people is more extrinsically motivated and their level of engagement in referral marketing programs might strongly correlated with perceived usefulness / benefits offered.

2.2 Playfulness

The playfulness can be considered as opposite to materialism in terms of being more focused on internal satisfaction that particular behavior can bring rather than rewards offered. Playfulness includes pleasure, psychological stimulation, and people interest (Csikszentmihalyi, 1990). Genuinely pleasurable activity provokes state of flow (Csikszentmihalyi, 1990). Researcher describes it as peak of pleasurable activity with a deep focused on the activity, effortless control, sense of time and emotional problems disappearance, exhilarating feeling of transcendence (Csikszentmihalyi, 1990). This state can be triggered by providing tasks which match people's abilities – not too easy and not too hard (Csikszentmihalyi, 1990). Venkatesh (2000) also indicates that enjoyment, goal orientation and self-efficacy have impact on people behavior. It is important because the cornerstone of boosting individuals intention to act is understanding their intrinsic motivation (Seung, 2012). Thus, it is important to consider both tasks that individual is asked to execute and traits of the individual who engages in the task.

Playfulness can also be defined as personality disposition. Playfulness at different age has been widely studied. Proyer (2012) found out the negative correlation between age and playfulness. Younger adults showed a higher level of playfulness rather than older ones (Proyer, 2012). In addition to this, the same study (Proyer, 2012) showed a negative correlation between playfulness and age with the greater playfulness among younger adults. Also, greater playfulness corresponded with lower tendency of feelings such as sadness or bad mood in cheerful situations (Proyer, 2012). Moreover, it showed that playful people showed higher acceptance on (Proyer, 2012). Although the research is focused on playfulness in childhood, playfulness can be a defined as personality trait in adulthood as well. Lieberman (1965) was the first to describe playfulness by **five key elements:** physical spontaneity, social spontaneity, cognitive spontaneity, manifest joy, and sense of humor (Lieberman, 1965). According to the Proyer (2017), playful personality seeks for entertainment in all field of life

and like unusual activities, people, topics. In addition to this, they are constantly looking for a ways to convert mundane task into personally interesting and intellectually stimulating. Moreover, playful personality tend to be playful in social settings (Barnett, 2007; Proyer, 2017). Barnett (2007) together with Yarnal and Qian (2011) did a research and identified main characteristics of playful people. By identifying 15 descriptive qualities, Barnett (2007) proposed that playful people can be characterized as being *"funny, humorous, spontaneous, unpredictable, impulsive, active, energetic, adventurous, sociable, outgoing, cheerful, and happy, and are likely to manifest playful behavior by joking, teasing, clowning, and acting silly".* In addition to this, Barnett research on young-adults playfulness was extended by Yarnal and Qian (2011) who proposed these characteristics of older-adult playfulness: happy, optimistic, cheerful, positive, enthusiastic, and relaxed. The new characteristics of playfulness were found – relaxed, enthusiastic, positive, optimistic and naughty (Yarnal, Qian, 2011). These characteristics were summarized by Proyer (2018) and a structural framework of playfulness was proposed. This framework encompasses 4 main facets of playfulness (Proyer, 2018):

a) *other-directed.* Playfulness is used for social relations building or reducing tension. People enjoy bantering and playing with others (Proyer, 2018).

b) *lighthearted.* People schedule time for play. People like to improvise, tend to consider life as a game and not focus on future consequences (Proyer, 2018).

c) *Intellectual.* People who use playing for innovative ideas or problems solution generation tend to prefer complexity (Proyer, 2018).

d) *Whimsical*. People like uncommon, strange things, activities, situations as well as being entertained by strange situations (Proyer, 2018).

The four playfulness facets by Proyer (2018) helps to describe the playfulness of adults.

The literature about playfulness revealed that it can be defined as instinctive motivational factor. According to Cognitive model, intrinsic motivation has a stronger effect on behavioral intention than extrinsic motivation (Thomas and Velthouse, 1990). Intrinsically motivated people demonstrate a higher responsibility to finish tasks or initiate new ones to address opportunity or problem as well as sustain motivation during challenging times (Thomas and Velthouse, 1990). Moreover, they claim that perceived playfulness can be an instinctive motivational factor which has a powerful effect on user's positive attitude building (Moon& Kim, 2001). Overall, Waterman, Schwartz and Conti (2008) claim that instinctively motivated activities are not only enjoyed, but also

is positively related to self-realization. Balance between task challenge and skills, perception that task can enhance personal development, willingness to invest efforts in task performance and belief that task is important (Waterman et al., 2008). The playfulness can be an intrinsic motivational factor which leads to internal satisfaction, higher responsibility and motivation to finish task as well as more positive individual attitude towards task building.

Playfulness can be defined as a factor that contributes toward acceptance and continues usage of the new things. Playfulness has been broadly analyzed in technology acceptance context. Moon and Kim (2001) introduced perceived playfulness as a new factor that influences the user's acceptance of World Wide Web (WWW). With the aim of explaining users' acceptance of WWW, perceived playfulness was added up to TAM (Technology Acceptance Model). The study discovered that when users perceived playfulness while using WWW, they considered experience more enjoyable and the level of their concentration on and curiosity for WWW increased (Moon & Kim, 2001). Playfulness was investigated in the context of web use continuity by being integrated in expectation – confirmation theory (ECT) (Lin et al., 2005). The study confirmed that perceived playfulness positively influences satisfaction with the website and contributed significantly to individuals revisiting the website intention (Lin et al., 2005). These findings were supported by Wakefield and Whitten (2017) who found that in situations when individuals perceive interaction with mobile devices more playful, the device is considered as more useful, enjoyable and the intention to use it more frequently increase in comparison to individuals who do not perceive interaction as playful. Positive effect on continues usage has been indicated in research on motives on continued microblogging service Twitter use has revealed a significant effect of perceived enjoyment and playfulness (Agrifoglio et. al, 2012). Overall, in the context of technology, playfulness contributes toward acceptance of new systems as well as increase satisfaction of the system. Thus, gamification elements introduction in referral marketing programs help to achieve similar outcomes.

Thus, the level of playfulness may differ in different age groups. However, playfulness as a personality trait can be found in children as well as in adults. People with high level playfulness can be defined as the ones who seek for amusement in daily tasks, social and work settings. Playfulness as a personality disposition can be defined by variety of characteristics. However, one of the most common characteristics are happy, active, impulsive, cheerful, enthusiastic and naughty. People with playfulness trait is attracted by the task that involves more playful features and their engagement increases together with the increased task playfulness. This originates from their trait to seek for personally interesting, unusual activities, hobbies or even adventures. Thus, game elements

introduction into referral marketing programs could be beneficial to trigger these people playfulness and ensure that behavior is intrinsically pleasant and engaging in flow state.

2.3 Individual risk tolerance

People face risks all the time including their income, employment, health and they the evaluate each decision option and risks this decision might bring. Risk encompasses two dimensions uncertainty and unfavorable consequences (Dowling, 1986; Chen, 2018). The risks existence in nowadays world drives the need for such services as health, property, unemployment, etc (O'Donoghue et al., 2018). A rational procedure of decision making involves evaluating future actions and their alternatives as well as consequences of action taken (March, 1994). Risk taking can be defined as engagement in behavior with a wider range of outcomes including negative ones such as reward loss or punishment as well as balancing conflicting motivations (Ferguson et al., 1991; Figner et. al, 2011). Thus, in uncertain situations, probabilistic thinking takes control and evaluates each option.

Evaluation of risks before making a decision or taking actions has been widely analyzed by numerous researchers and studies. Markowitz (1952) was the first to suggest a framework for investment decision making by assessing the individual risk, outcome and other important assets that could have an impact. The modern portfolio theory (Markowitz, 1952) helps risk-averse investors to evaluate investing opportunities in order to attain desirable results with lowest risk possible. However, they are taking higher risks when expecting a higher outcome (Emanuelsson and Marling, 2012). The Modern portfolio theory emphasizes the two crucial factors that are considered by every people when making decisions in everyday life – **perceived risk and perceived outcome**. The Expected-Utility theory combines expected outcome value connected with probability of gain or loss in order to define risk aversion behavior (Rabin, 2013). Thus, people determine not only risk, but also the probability of negative outcome. The theory implies that people are almost risk neutral when the expected loss is exceptionally low (Rabin, 2013). Early work by Arrow (1965) suggested that when making decisions people are risk averse which means they experience low willingness to act in case of significant chance of loss or uncertain benefits (Arrow, 1965; Stefánsson, 2016). The pattern of risk averse behavior (Table 1) has been introduced by Kahneman and Tversky's (1979). Risk seeking behavior was noticed when a low probability of losing or high probability of winning occurred (Stefánsson, 2016). In contrast, risk-averse behavior was common when high probability of gain or low probability of loss occurred (Stefánsson, 2016).

Table 1

Risk aversion behavior

Probability of outcome	Gain	Loss
Low probability	*Risk seeking*	*Risk aversion*
High probability	*Risk aversion*	*Risk seeking*

Source: Kahneman & Tversky, 1979; Stefánsson, 2016

Based on the analyzed theories, the evaluation of risk is a cognitive process which involves processing the probability of outcomes (high or low) and potential outcome itself (gain or loss). This process is done by every individual and identification of high probability of loss triggers risk averse behavior.

However, some authors (Robin, 2013; Stefánsson, 2016) argue that Expected Utility theory does not help explain some risk attitudes. Moreover, it is emphasizing that risk aversion predictions over modest or small stakes is not precise (Robin, 2013). The reason is that risk and gain evaluation is strongly connected with individual subjective beliefs and risk attitudes. The positive relationship between subjective belief and risk attitudes has been found by Menapace et. al. (2013). Study revealed that risk attitude and judgement is strongly affected by individual's past experience. Farmers who experienced large-scale crop failure due to extreme weather conditions perceived higher weather risk compared to those without similar experiences (Menapace et. al. (2013). Figner et al. (2011) has expanded the factors that have impact on risk assessment. People vary in the risks they take because risk accepting is determined by several factors such as attributes of the situation, interaction with situation, interaction with the situation and decision maker's values and personality traits (Figner et. al, 2011). Level of risk taking varies for different individuals depending on insight of anticipated gain, risk and how much risk they are ready to accept in exchange for a specific outcome (Figner et. al, 2011). Thus, attitude towards risk might differ from individual to individual. The connection between risk aversion and big five personality traits was found by Aren et. al. (2020). According to study, people who possess traits self-interest, impulsiveness, and emotional stability are more risk taking than people with agreeableness, conscientiousness, and neuroticism traits (Aren et. al., 2020). The other study (Guiso, 2004) results revealed that risk-averse individuals tend to choose safer actions when choosing a job, allocation of savings and investments, investment in education which leads to lower, but predictable gains. Also, risk-averse individuals tend to select lower risk involved activities (Guiso, 2004). Moreover, Wang et al., (2017) study revealed the different risk aversions when making decisions for the group and individual decision. Group representative decisions are more risk averse

when extrinsic motivation are present (guilt, self-blame, etc.) (Wang et.al, 2017). However, tolerance of risk increased once extrinsic motivation was removed (Wang et.al, 2017).

Thus, individual decision making encompass several steps and subjective risk assessment is one of the step that helps individuals to evaluate probability of gain or loss. Risk attitude and judgement is strongly related with individual's values and personality traits, past experience, subjective beliefs of loss or gain occurrence as well as assessment of possible impact of gain or loss. The individual tend to differ on risk tolerance. The risk-averse individuals has a lower tolerance of the risk and consciously selects lower risk activities in contrast to risk seekers. In addition to this, risk-averse is different when making individual and group decisions. Individual responsible for decision that impacts group of people is reported to be more risk-averse, and vice versa. Individual risk tolerance is important to consider when developing referral marketing program design as risk-averse people might not be willing to participate in programs if high probability of loss is identified. The internal fear of loss might discourage them from engagement. Thus, the trust between the referral, referee and brand should be built in order to ensure both sides (referral and referee) that gain probability is higher than loss.

2.4 Belongingness

Sense of belonging is defined as a user's feeling of cohesion or attachment to a group or a community (Lin, Fan & Chau 2014). Maslow's (1970) hierarchy of needs emphasizes the need for a sense of belonging as one of the major sources of motivation (Inglehart, 1990). Baumeister et. al. (1995) claimed that belonging is a fundamental need of humans. Human seek stable, long term, positive interactions, and connections with other people (Baumeister et. al., 1995). Additionally, people need a few close bonds close, long-term relationship which ensures stable care and concern for the full satisfaction of this need (Leary and Baumeister, 1995). To sustain social bonds, it is crucial that common values, goals, interests, and empathy would be shared among group members (Aron et. al., 2000). Common interests help to unite people into communities and belongingness is found to be as one of the contributing factors toward creation of a stronger bond among members of community and expansion of efforts to help others (Den Hartog et. al., 2007). Thus, the sense of belonging can be explained as the seek for close social connection with similar mind, values, goals and interest people and this bond provides the feel of acceptance and security.

Belonginess is important to human well-being and one of the factors shaping individuals behaviors in order to achieve acceptance among society members. The high sense of belonging might

help to reduce perceived stress and as a result increases life satisfaction (Civitci, 2015), improves mental health and well-being (Stebleton, 2014) and contributes towards people's perception of their life as highly meaningful (Lambert et. al., 2013). Contrary, an unsatisfied need to belong can result in lower satisfaction of life, psychological and physical health problems (Baumeister et. Al., 1995). Feeling the need to belong, individuals shape behaviors in order to achieve acceptance among society members. The identity control theory confirms it by explaining the nature of a person's identities and the connection between identities and behavior within the social structure a person is in (Burke, 2007). The cornerstone of the theory is people perceive their identities and then choose their own behavior in order to match to the meaning of perceived identities (Burke, 2007). And the people with perceived same identities form groups. It is important to note that person and society attaches expectations towards the identities which can be defined as identity standards (Burke, 2007). In society people seek to verify their identities. Consequently, they do not engage in behavior which is against set identity standards (Burke, 2007). Therefore, the need to belong is considered as fundamental needs of humans and to fit in society structure, people are ready to follow behavior patterns set by the society they seek to belong to.

Individuals with a need to belong can be sensitive towards rejection as it negatively affects self-esteem. Leary et. Al. (2013) emphasizes that a high need to belong encourages people to interact with other people. However, those people also possess a powerful desire for social acceptance as well as fear of criticism and rejection. In addition to this, social anxiety arises from concerns about their impression, attractiveness, popularity, and reputation among other people (Leary et. Al, 2013). Social rejection and acceptance affect self-esteem (Cameron et. al, 2017). According to sociometer theory, self-esteem responsiveness to acceptance or rejection helps to monitor to avoid rejection and decrease in self-esteem. The threat of rejection motivates people to adjust their behavior with the aim of reestablishing acceptance or minimizing threat of rejection (Leary et al., 2000; Cameron et. al, 2017). The notion is supported by numerous studies. The peer rejection lowers self-esteem and increases adolescent materialism (Jiang, 2015). While self-esteem decreases after rejection tends to affect well-being and encourage risky behavior (Ford et al., 2013). The stronger feeling of rejection and lower self-esteem was reported by people chosen last for the team compared with those chosen first (Bourgeois et al., 2001). When people feel relationship with them is not valued, the feeling of rejection lowers their self-esteem (Buckley et al., 2004). Thus, exclusion shapes people's behavior by having an impact on their self-esteem. The risk of rejection might be a reason of unwillingness to participate

in referral marketing programs if that behavior would be seen as against the perceived identity of participant as well as participant might expect rejection due to his actions.

People with high belongingness are eager to be a part of community. The positive side of feeling a part of community is that it encourages people to share opinion about consumption of product as a contribution towards other community members well – being. When an individual identifies himself as a part of community, it is an internal factor that motivates individuals to be altruistic and to put more efforts into achieving main goals, do favors for other group members (Hars and Ou, 2002). Social identity proved to be a factor that stimulates initiation of word of mouth in social networks (González-Soriano et al., 2020). The perception of being a valuable member of the online community motivates people to share opinions and reviews on consumption experience (González-Soriano et al., 2020). Additionally, commitment to brand community has a significant effect on positive WOM development (Demiray and Burnaz, 2019). According to Demiray and Burnaz (2019), the brand community contains both – opinion leaders and opinion seekers. The opinion leader has a constant high degree involvement and product knowledge to share with other community members. In contrast, opinion seeker's main goal is to receive information (Demiray and Burnaz, 2019). However, both parties report a higher sense of belonging to brand community (Demiray and Burnaz, 2019). Furthermore, the study (Kucukemiroglu and Kara, 2015) reports that if referral is a close friend, referee trust in eWOM increases as well as his willingness to participate in eWOM communication and generate product recommendations. Therefore, feeling the sense of belonging promotes people engagement and commitment to brand communities. The people self-identity promotes the behavior that is either opinion leaders or opinion seekers. The important implication from the studies is that that willingness to engage in referral marketing programs could be promoted by creating the sense of being a part of the bigger community and efforts of referring product or services contributes toward members of that group well-being.

Belonginess is a fundamental need of human-being and it triggers human motivation to be a part of communities sharing similar values and attitudes. The sharing of opinion or recommendation creates a stronger bond among community members. Additionally, sharing of opinion and recommendation creates the sense of being a valuable member of the community. This is the reason why opinion or recommendation sharing is perceived as a help to other community members. However, it possesses the risk of being rejected and this risk might decrease the motivation to recommend. As a result, people tend to align their behavior in order to meet community expectations and not engage in the activities that might be against community standards. The strong need to belong

might influence individuals intentions to act without evaluating the benefits that one or another actions might provide – internal satisfaction or materialistic rewards. The important implication from the studies is that intention to recommend in referral marketing programs could be promoted by creating the sense of being a part of the bigger community and efforts of referring product or services contributes toward members of that group well-being.

The intention to recommend in referral marketing programs is an outcome of a cognitive process which involves evaluation of all possible benefits and losses. However, the perception of this gamified system and intention to recommend might differ depending on personality traits. Various studies have proved that personality traits have a significant impact on people's behavioral intentions. Materialistic people tend to engage in activities for a seek of gain or reward. Contrary, playful people seek for playful tasks which promise intrinsic enjoyment. People with a high need to belong to communities, will engage in activities which help them to become a more valuable community member. Furthermore, risk-averse individuals will engage less-risky activities compared to risk seekers who focus on high gains rather than loss. Therefore, personality traits are independent factors which influence the perception of gamified referral marketing program and intention to recommend as a result. The four personality traits – materialism, playfulness, belongingness and individual risk tolerance are chosen as independent variables for this master thesis.

3. METHODOLOGY

3.1 Conceptual model of research

The literature analysis revealed that implementation of game elements with the aim to increase the gamified system users' intrinsic motivation, brand loyalty, performance and behavioral intentions have been widely analyzed by different authors. The gamification and gamified systems are one of the increasingly used tools to increase customer engagement and loyalty triggering their intrinsic motivating. However, there is a lack of research focusing on individual traits: materialism, playfulness, belongingness and risk-aversion impact on intention to recommend in the gamified referral marketing programs.

Therefore, **the purpose of the research** was to analyze the impact of user' individual traits: materialism, playfulness, belongingness and risk aversion on the perceived usefulness, enjoyment, risk of gamified system and intention to recommend.

The main research question is therefore: How intention to recommend are influenced by individual traits and perception of gamified system?

To address the purpose of this research, the research model presented below was developed as well as variables were identified and hypothesis of this research formed.

Research model. The research model was formulated considering that intention to recommend derives from various factors which can be and cannot be influenced by the gamified system creator. Individual traits (materialism, playfulness, belongingness and risk aversion) are considered as innate as well as have a significant influence on people behavior intentions and are not controlled by gamified system creator. Thus, in this model they were considered as independent variables. The introduction of gamification elements in referral marketing program created a gamified system. The users' perception of this system was considered as having impact on intention to recommend. The perceived usefulness, enjoyment and risk of gamified system were dependent variables. The model is presented in *Figure* 1.

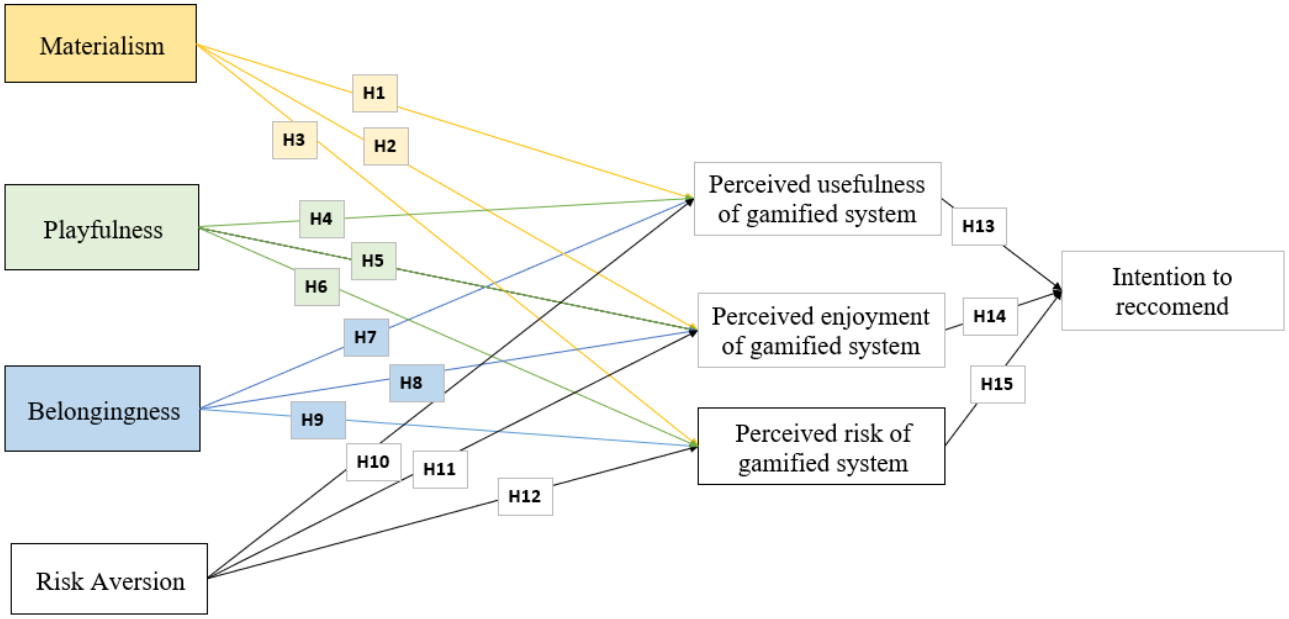

Figure 1. Conceptual model

Source: Author of master thesis

3.2 Hypothesis development

With the aim to test individual traits (materialism, playfulness, belongingness and risk-averse) impact on perception of the gamified system defined as perceived usefulness, enjoyment and risk and, as a result, on intention to recommend, the following hypothesis were formulated.

Materialism.

According to Zhang and Zhao (2019) and Wu et al. (2021) studies, materialistic orientation is connected to perfectionism which means focusing on the details of product with the aim to assess its value for them. Even materialistic people are reported to be less practical by Zhang and Zhao (2019), they tend to increase the perception of costs and weaken perception of benefits (Wu et al., 2021). Materialistic orientation found to be positively related with resistant attitude (Wu et al., 2021). Given this background, H1 was formed:

H1. *Materialism has positive impact on perceived usefulness of gamified system.*

Van Boven and Gilovich (2003) study emphasized that experiences bring more happiness than material possessions. In contrast, materialistic people shown to be prone to evaluate their happiness and self-definition through material objects acquisition (Richins, 2004) and their value those objects because of financial value as well as proof of status (Shrum, 2013). Zhang et al. (2014) study

supported Shrum (2013) study results by revealing materialistic people tendency to ignore hedonic benefits of life experiences because they did not increase identity expression. Given this background and that gamified system aim is to provide hedonic benefits for people to enjoy using it, the H2 was formed.

H2. *Materialism has a negative impact on perceived enjoyment of gamified system.*

Several previous research have revealed the positive connection between individualism and materialism (Eckersley, 2006; Awanis et al., 2017; Ali et al., 2020). The individualism core values are personal uniqueness and freedom, autonomy, self-confidence and responsibility (Hofstede, 2001; Gantenbein et al., 2019). Ali et al. (2020) reported that materialistic as well as individualistic personalities tend to be more independent with higher self-esteem and ability to make independent decisions based on personal preferences. While less materialistic people into decision-making process is more influenced by other important people or institutions (Ali et al., 2020). Given this background, H3 was formed:

H3. *Materialism has negative impact on perceived risk of gamified system.*

Playfulness:

Barnett (2007) reported the higher engagement in playful activities such as joking, teasing, clown by people with a dominant playfulness trait. In addition to this, the playfulness trait has positive relation with increased optimism, spontaneity as well as higher need for social connections (Yarnal, C., & Qian, X. (2011). Moreover, playfulness trait found to be positively related with a higher importance and efforts put towards intrinsic goals and aspirations achievements than extrinsic goals and aspirations (Proyer, 2012). The intrinsic motivation to engage in fun, gameful, playful activities and experiences were higher among people reported to possess playfulness trait (Petelczyc et al., 2018). The balance between skills and challenges creates an engagement into game which is a key component for increasing the quality of user's experience (Jin, 2012). However, playfulness is found to be negatively impacted by perceived risk (Dahabiyeh, Najjar, Agrawal, 2020). Given this background, H4, H5 and H6 were formed:

H4. *Playfulness has a positive impact on perceived usefulness of gamified system.*

H5. *Playfulness has a positive impact on perceived enjoyment of gamified system.*

H6. *Playfulness has a positive impact on perceived risk of gamified system.*

Belongingness:

Belongingness is one of the key factors that impact users' interaction in online environment and loyalty in the community (Lin, 2008; Zhao et al., 2012; Lin, Fan, Chau, 2014). A sense of belonging is positively related with motivation for social interaction (Alves et al., 2016). The importance of interaction for enjoyment has been revealed by Sacco and Ismail (2014) study. Higher enjoyment was reported among people who have a possibility of interaction within the system compared to those who do not have social interaction possibility (Sacco, 2014). Additionally, the belongingness is related with a need to be a valuable team member (Leary, 2021). The research report the decreased belongingness effect on attitude and behavioural intentions. Tuncel and Kavak (2022) study revealed that decreased sense of belongingness due to experienced social exclusion can lead to unethical behavioural intentions. In addition to this, belongingness is connected to the need and efforts to regain acceptance of the group by tailoring behavior (Chen, Wan, Levy, 2017; Leary, 2021). Furthermore, a positive relationship between sense of belonging and perceived usefulness of the systems has been revealed by Teo et al. (2003). Belongingness found to be important to continuous system usage with the aim to interact and be accepted by the friends and community (Lin, Fan, Chau, 2014). Given this background, H7, H8 and H9 were formed:

H7. *Belongingness has a positive impact on perceived usefulness of the gamified system.*

H8. *Belongingness has a positive impact on perceived enjoyment of the gamified system.*

H9. *Belongingness has a positive impact on perceived risk of the gamified system.*

Risk aversion:

The risk of gamified system that to some extent is faced by system users can be separated in 2 types identified. System dependent uncertainty which originates from uncertainty of using technological infrastructure and transaction dependent uncertainty which derives from asymmetric among system users and provider (Grabner-Krauter, Kaluscha, 2003). Thus, the users of gamified system will take risk to some extent. Risk averse individuals is reported to be more sensitive to uncertainty and uncertainty poses a risk (Slovic, 2000). Wong (2005) reported that risk perception mediates the risk propensity. Risk seeking people tend to perceive given situation as less risky compared to those who is risk averse. Thus, risk seeking people is more confident taking a risk comparing to risk averse people (Wong, 2005). However, people tend to resolve their perceived uncertainties when engaging in gamified activities to be getting rewarded (Otto, Fleming, Glimcher,

2016; Tan, Chen, 2021; Leclercq, 2022). In addition to this, high-quality experience is created by exposing the progress towards wining gamified activity which creates individual sense of control (Leclercq, 2022). Thus, the feedback system reduces the level of uncertainty. Given this background, the H10, H11 and H12 were formed:

H10. *Risk aversion has a positive impact on perceived usefulness of gamified system.*

H11. *Risk aversion has a negative impact on perceived enjoyment of gamified system.*

H12. *Risk aversion has a negative impact on perceived risk.*

Intention to use:

Gamification element introduction in the system is reported to be positively related to adoption of internet banking (Rodrigues, Costa, Oliveira, 2017). In addition to this, the significant relationship between behavioral intentions and gamification was reported by Baptista and Oliveira (2017). Samar and Mazuri (2019) reported the correlation between higher intention to use and adopt system and higher gamification of the system. Thus, gamification element introduction is reported to have a significant impact on system adoption or / and usage. An intention to recommend using gamified system is measured through perceived usefulness, enjoyment and risk of gamifies system.

Various studies confirmed the significant effect of perceived usefulness on intention to use system in different domains – virtual learning (Teo et al. Zhang, Z., 2003), e-commerce websites (Aparicio, Costa and Moises, 2021), gamified learning systems through creating positive attitude towards gamified system (Mustafa, 2022), use gamified virtual currency (George, Sajid, 2022). Given this background, the H13 was formed:

H13. *Perceived usefulness of gamified system has a positive impact on intention to recommend.*

The positive relationship between flow state (enjoyment) of web page and behavioral intentions to use has been revealed by Garcia-Jurado et al. (2018). The study results were supported by Zatarain Cabada et al. (2018) study which reported significant link between perceived enjoyment and intention to use gamified EasyLogic system. Kose, Morschheuser and Hamari (2019) study proved the positive correlation between perceived enjoyment and system usage. In addition to this, enjoyment derived from using gamified system is significantly connected to contribution intention (knowledge sharing) about this system (Kose, Morschheuser, Hamari, 2019). Thus, the enjoyment

which derives from gamified system is reported to have a positive impact on intention to use in various contexts. Given this background, the H14 was formed:

H14. *Perceived enjoyment of gamified system has a positive impact on intention to recommend.*

Hansen et al. (2018) study concluded that perceived risk is associated with strength of attitude and higher control towards engagement into system usage, thus, behavioral intention. Perceived risk is proved to be an important factor that negatively impact bahavioural intention to play online games (Dahabiyeh, Najjar, Agrawal, 2020) as well as level of trust of recommendation and online purchase intention (Chang, Chin, 2010). Given this background, the H15 was formed:

H15. *Perceived risk of gamified system has a negative impact on intention to recommend.*

3.3 Constructs

With the aim to test out hypothesis and formulate a research instrument, firstly, a reliable and valid measurement scales were identified. The scales for each construct are presented below.

Materialism. Materialism construct describes the users' attitude towards money and material goods. Richins and Davidson (1992) defines materialism a belief that ownership and acquisition of material objects is a main life goal and lead to happiness. The materialism is measured by Material Value Scale developed by Richins (2004) and adapted by Ponchio and Aranha (2008). A 7-points Likert-scale response format is used. Ponchio and Aranha (2008) adapted Materialism scales consists of 9 items in total. Richins (2004) reports the Cronnach's alpha for nine-item scale being .84. The Richins (2004) scale has been used in different studies to measure materialism by Alzubaidi, Slade and Dwivedi (2021) and Lee et al. (2022).

Playfulness. Shen, Chick, and Zinn (2014a) define the playfulness construct as an internal or mental inclination to engage in playful behavior. The playfulness is measured by The Short Measure of Adult Playfulness scale (SMAP) developed by Proyer (2012). The scale consists of 5 items in total which defines the level of engagement in playful experiences (Proyer, 2012). A 7-points Likert-scale response format is used. The greater score identifies higher playfulness and engagement in playful activities (Proyer, 2014). Proyer (2012) also reported unidimensionality and high internal consistencies ≥ 0.80. The scale has been used in different studies to assess playfulness by Yue, Leung and Hiranandani (2016), Proyer and Brauer (2018), Proeyer (2014).

Belongingness. The sense of belongingness is defined as users demand for acceptability by social environment, social bond with group and feeling valuable appreciated members. The belongingness is measured with General Belongingness Scale developed by Malone, Pillow and Osman (2012). The scale consists of 2 dimensions – Acceptance / Inclusion and Rejection / Exclusion. Total 12 items, 6 per one dimension, are used. Given the high-inter factor correlation items in Rejection / Exclusion dimension is negative worded and reversed scored. A 7-points Likert-scale response format is used. The reliability of this scale is reported to be high with Coeficient apha .94 (Malone, Pillow, Osman, 2012). This scale has been used in different studies to assess general belonginess by Arslan (2018), Arslan and Coskun, M. (2021), Polat and Karabatak, (2021).

Risk aversion. Risk averseness commonly considered as personality trait defines to which extent users prefer certainty over uncertainty (Weber, Blais, Betz, 2002). To measure risk aversion a Domain-specific Risk-attitude Scale developed by Weber, Blais and Betz (2002) was used. For this research, the adapted social subscale consisting of 9-items related to risk in social domain. A 7-points Likert-scale response format is used. The lower score implies higher level of risk aversion. The scales have been widely used to assess risk aversion in different domains – Brooks and Clark (2019) and Netemeyer et al. (2019).

Perceived enjoyment. The perceived enjoyment is focused on intrinsic motivation to use the system for entertainment purposes (Van der Heijden, 2004). The four-item scale developed by Cheung, Chang, Lai (2000) was adapted to measure the perceived enjoyment of gamified system. A 7-points Likert-scale response format is used. The higher final score, the higher enjoyment respondent felt while using the gamified system. The Cronbach alpha for this scale was 0.83 (Cheung, Chang, Lai (2000). The scale to measure perceived enjoyment in terms of new system or service adaptation was used by Konietzny, Caruana and Cassar (2018), Tojib and Tsarenko (2012), Van der Heijden (2004).

Perceived usefulness. The perceived usefulness construct is adopted from TAM model developed by Davis et al. (1989). Davis et al. (1989) defined it as to which extent user believes that using system boost individual performance. The 6 items-scale developed by Davis et al. (1989) was adapted to measure the perceived usefulness of gamified system. A 7-points Likert-scale response format is used. The higher score implies higher level of perceived usefulness. Cronbach alpha reliability for perceived use- fulness was .97 (Davis et al., 1989). The scale to measure perceived

usefulness of the system was used by Izuagbe et al. (2019), Lanlan, Ahmi and Popoola (2019), Nayanajith (2021).

Perceived risk. Perceived risk is defined as subjectively calculated loss of particular action or engagement in situation (Hwang, Choe, 2020). The scale to measure perceived risk of gamified system was adopted from Currás-Pérez, Ruiz-Mafé and Sanz-Blas (2013) study. The scale consists of 8 items in total which defines the 4 risk dimensions – privacy risk, psychological risk, time loss risk, social risk. The response form is seven-point Likert scale (1=completely disagree, 7=completely agree). The reliability and convergent validity of measurement reported by Currás-Pérez, Ruiz-Mafé and Sanz-Blas (2013) is privacy risk (0.78), psychological risk (0.78), time loss risk (0.67), social risk (0.68).

Intention to recommend. Intention to recommend can be defined as positive word of mouth about the service or product (Kim, Son, 2009). Thus, the intention to recommend was measured with word-of-mouth scale which was adapted by Srinivasan, Anderson and Ponnavolu (2002) based on Zeithaml, Berry, and Parasuraman (1996). The scale consists of 4 items in total. The response form is 7 points scale. The scale to measure intention to recommend has been used by Kim and Son (2009).

3.2 Instrument and data collection

After the constructs were defined and scales to measure was chosen, a quantitative approach for this research was chosen and a research instrument was developed. Taking into consideration previous empirical research of gamification, the research instrument selected for this research was an online questionnaire. The online questionnaires are commonly used to measure gamification impact in studies (Gerdenitsch et. al, 2020; Hamari, Koivisto, Sarsa, 2014; Mattke and Maier, 2021; Mekler et. al, 2017; Xi and Hamari, 2019). The next reason for online questionnaire selection were the high speed of data collection and data comparison possibility due to standardized questions for all respondents (Lumsden, Morgan, 2005). In all questions the seven-point Likert scale was used as a response form. Thus, it eased large data quantities organising and data analysing. Moreover, online questionnaires ensured anonymity.

The online questionnaire consisted of two parts. In the first part, the individual traits – materialism, playfulness, belongingness and risk-aversion of respondents were evaluated. In the second part of the questionnaire, factors related to perception of the system - the perceived usefulness, enjoyment and risk and their impact on intention to recommend were measured. In order to do so, participants were introduced with background information about this gamified system's aim and were

asked to follow the link to gamified systems simulation. In addition to this, they were presented with the screenshots of the referral marketing system simulation. The simulation of gamified system was created for VPN (Virtual Private Network) services and gamification elements used in this system were leaderboard, points, bonus, progress bar and time manipulation. The aim of this simulation of gamified system was to encourage current VPN users to refer VPN service to new users. The VPN services were chosen for this simulation due to the high popularity of referral marketing programs among this service providers as well as very tough competition in the market. While gamification elements used in this gamified system are frequently used in different gamification related studies (Koivisto, Hamari, 2019). The simulation of the gamified system presented to respondents was created considering that gamification related studies frequently use existing gamified systems or simulation of gamified systems to measure gamification impact. Existing or simulation of gamified systems is used in studies by Gerdenitsch et al. (2020), Gonzalez-Briones et al. (2021) and Mekler et al. (2017). After being presented with a gamified system, respondents were asked to evaluate the presented simulation of the gamified system through their perception of risk, enjoyment and usefulness of the gamified system. The full instrument of this empirical research can be found in *Annex 1*.

Sample size

For this study participants were selected following non-probability, convenience sampling design. This sampling design was selected due to the large population being potential participants of this study. Moreover, the study had a limited budget and time dedicated for study conducting. The sample size was calculated following a statistical approach with formula n = z2 p(1-p)/ e2. The standard error (z) is z=1.96, percent of population p=0.5, while level of acceptable error is 0.06. Thus, the sample size calculated is n=267 participants. The potential survey participants were based in Lithuania. However, the questionnaire was in English with the aim to give opportunities to participants who did not speak Lithuanian language.

Methods and statistics for data analysis

The methods used for statistical analysis of quantitative data was reliability and linear regression. Data was analyzed using SPSS.

4. RESULTS

4.1 Descriptive statistics

Respondents

Research data was collected by online survey from October 1st till December 1st. During data collection period, 301 respondents responses were collected. All of the questionnaires were fully completed due to all questionnaire questions being mandatory questions. Thus, all the data from 301 respondents were included into analysis. All of the respondents were located in Lithuania. The demographics of respondents is presented in Tables 2 and 3. The majority of respondents were between 25 – 34 years (53.8%). The distribution of respondents by gender is balanced – 54.8% were female and 45.2% were male.

Table 2

Demographics of respondents: Gender

	Frequency	**Percent, %**
Female	165	54.8
Male	136	45.2

Table 3

Demographics of respondents: Age

Age group	**Frequency**	**Percent, %**
18-24	81	26.9
25-34	162	53.8
35-44	56	18.6
45-54	2	0.7

4.2 Reliability analysis

Reliability analysis were conducted for all scales. The internal consistency of scales were calculated with Cronbach's alpha. Reliability analysis indicated high internal consistency of all scales. Reliability analysis indicated that scales playfulness, belonginess, risk-averse, perceived usefulness, perceived playfulness, perceived risk and intention to recommend had a higher than 0.9 Cronbach's alpha. In order to avoid the redundant items and following the recommendation of maximum alpha value of 0.9 (Steiner, 2003), some items of scales were deleted.

Materialism scale consisting of 8 items Cronbach's alpha value is 0.811. Reliability analysis of **Playfulness scale** of 5 items indicated Cronbach's alpha value of 0.911. Elimination of 1 item *"Sometimes, I completely forget about the time and am absorbed in a playful activity"* helped to obtain Cronbach's alpha value of 0.896. Thus, the final playfulness scale consists of 4 items. **Belongingness scale** consisting of 10 items obtained a Cronbach's alpha value is 0.942 which is higher than recommended. Due to this, 4 items: "*Because I do not belong, I feel distant during the holiday season", „I feel like an outsider", „I have close bonds with family and friends", „I feel accepted by others", „Friends and family do not involve me in their plans"* were deleted and Belongingness scale consisting of 6 elements obtained 0.9. **Risk-aversion scale** consisting of 9 items Cronbach's alpha value is 0.852. **Perceived usefulness scale** consisting of 6 items Cronbach's alpha value is 0.877. Reliability analysis of **Perceived enjoyment scale** of 4 items indicated Cronbach's alpha value of 0.928. Elimination of 1 item "I would find the presented gamified system interesting" helped to obtain Cronbach's alpha value of 0.9. Initial **risk-aversion scale** consisting of 8 elements obtained Cronbach's alpha value of 0.918. Item *"Participating in gamified system, endangers my privacy because of wrongful use of my personal data."* was removed and recommended value of 0.9 was obtained. **Intention to recommend scale** consisting 4 items Cronbach's alpha value was 0.918. Elimination of 1 item *"I would say positive things about this VPN service and gamified system"* helped to obtain Cronbach's alpha value of 0.895. The summary of all scales reliability statistics are presented in Table 4.

Table 4

Reliability statistics summary

Scale	Cronbach's Alpha	N of items
Materialism	0.811	8
Playfulness	0.896	4
Belongingness	0.9	6
Risk-aversion	0.852	9
Perceived usefulness	0.877	6
Perceived enjoyment	0.9	3
Perceived risk	0.9	7
Intention to recommend	0.895	3

4.3 Hypotheses testing

In order to explore personality traits and perception of gamified system impact on intention to reccomend, the regression analysis were performed.

H1. *Materialism has positive impact on perceived usefulness of gamified system.*

H1 rejected. R^2=0.105, F(1)= 35.208 p=0. The results of regression indicated that materialism explained only 10,5% of the variance (Table 5). However, materialism proved to be a statistically significant predictor of perceived usefulness (t=-5.934, p=0). Analysis of regression coefficient showed that materialism has a negative standardized coefficient β value of -0.325 which indicated the negative correlation between materialism and perceived usefulness (Table 6). This empirical data depicted an opposite impact from predicted one – the highly materialistic individuals perceived the gamified system to be less useful than respondents with lower levels of materialism.

There is a gap in research of relation between materialism disposition and perceived usefulness of the system. However, there are studies which investigated the connection between materialism and usage as well as participation intentions. Previous study by Hsiao et al. (2017) found materialism having significant positive effect on social and game application usage. However, the motivation of this usage is linked to materialistic people's belief of raising their status while using apps. Moreover, Akbar, Mai and Hoffmann (2016) investigated consumers' willingness to participate in commercial sharing systems (CSS) which provide temporary access to products or services. High materialism of consumers had low sharing intentions. However, the uniqueness of products and desire for unique products were found to be moderating factors which increased the materialistic people's intention to participate (Akbar, Mai and Hoffmann, 2016). Thus, materialistic personalities prioritize self-image enhancement and uniqueness of system or app rather than performance or ease of use provided by system or app.

Table 5

The results of linear regression with perceived usefulness as dependent variable

Model	**R square**	**Anova[a]**		
		df	**F**	**Sig[b]**
1	0.105	1	35.208	0.000[b]
a Predictors: (Constant), Materialism				

b Dependent Variable: Percieved Usefulness

Table 6

The coefficients[a] of linear regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.973	0.259		23.056	0
	Materialism	-0.364	0.061	-0.325	-5.934	0
a Dependent Variable: Percieved Usefulness						

H2. *Materialism has a negative impact on perceived enjoyment of gamified system.*

H2 accepted. R^2=0.067, F(1)= 21.345 p=0 (Table 7). The results of linear regression indicated that materialism explained 6.7% variance and is a significant predictor (t=-4.62, p=0) of perceived enjoyment of the gamified system. Negative standardized β value of -0.325 showed a moderate negative relation between materialism and perceived enjoyment and proves the hypothesis that more materialistic people tend to perceive gamified systems as less enjoyable (Table 8).

The findings on materialism's negative impact on perceived enjoyment is congruent with previous studies which showed materialistic people being extrinsic-goals oriented. Materialistic people consume goods or services to fulfil extrinsic goals primarily – communicate their status or identity to a group rather than to achieve self-actualization or contribution to a community well-being (Hudders and Pandalaere, 2012; Ryan and Deci, 2000). Moreover, Duan (2020) proved the positive relation between anticipated impact of purchase on self and this purchase induced happiness. In a broader sense, if action is perceived as positively impacting self-image, it induces enjoyment over this action or more consumption. Thus, in this research, materialism proved to be negatively linked to perception of the system as less enjoyable. The reason for this is that gamified elements usage in the system works as a trigger of intrinsic motivation arising from enjoyment rather than from fulfilling extrinsic goals. Materialistic people do not value intrinsic motivation triggers, thus, increase in materialism, decrease enjoyment of the gamified system.

Table 7

The results of linear regression with perceived enjoyment as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sigb
1	0.067	1	21.345	0.000[b]
a Predictors: (Constant), Materialism				
b Dependent Variable: Percieved Enjoyment				

Table 8

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
1		B	Std. Error	Beta		
	(Constant)	6.174	0.26		23.79	0
	Materialism	-0.284	0.061	-0.258	-4.62	0
a Dependent Variable: Percieved Enjoyment						

H3. *Materialism has negative impact on perceived risk of gamified system.*

H3 is rejected. Materialism (t=1.839, p=0.067) found to be unsignificant predictor of perceived risk of gamified system. R^2=0.011, F(1)= 3.381 p=0.067. The results are presented in the Table 9 and Table 10.

Table 9

The results of linear regression with perceived risk as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.011	1	3.381	.067[b]
a Predictors: (Constant), Materialism				
b Dependent Variable:Percieved Risk				

Table 10

The coefficients[a] of linear regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1		B	Std. Error	Beta		
	(Constant)	3.331	0.305		10.932	0
	Materialism	0.133	0.072	0.106	1.839	0.067
a Dependent Variable: Percieved Risk						

Playfulness:

H4. *Playfulness has a positive impact on perceived usefulness of gamified system.*

H4 is accepted. R^2=0.376, F(1)= 179.841 p=0. As it was predicted, the playfulness trait is a significant predictor of perceived usefulness of the presented gamified system (t=13.41 p=0) (Table 11). Standardized coefficients β value of 0.613 confirms positive moderate relation between playfulness and perceived usefulness (Table 12). Thus, respondents with reported higher levels of playfulness tended to consider gamified referral marketing systems as more useful compared to those who reported low levels of playfulness.

The results are in line with prior research by Ke, Sun and Yang (2012) which proved a significant effect of user characteristics on perceived usefulness. Moreover, Estriegana, Medina-Merodio and Barchino (2019) reported significant playfulness influence on perceived usefulness, ease of use and perceived satisfaction of the system. Lin and Yeh (2019) research revealed a positive relation between playfulness and perceived usefulness of VR (virtual reality)- supported technology. Individual playfulness is found to be a driver of intrinsic motivation to engage in activities (Dahabiyeh, Najjar, Agrawal, 2020). Combining the results from prior research and this research results, playful personalities have a tendency to engage in pleasure-oriented systems usage. Thus, for playful system users, gamification could be a powerful tool to enhance a performance of the system because it evokes enjoyment and pleasure.

Table 11

The results of linear regression with perceived usefulness as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.376	1	179.841	0.000b
a Predictors: (Constant), Playfulness				
b Dependent Variable:Percieved Usefulness				

Table 12

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.598	0.222		7.207	0
	Playfulness	0.616	0.046	0.613	13.41	0
a Dependent Variable: Percieved Usefulness						

H5. *Playfulness has a positive impact on perceived enjoyment of gamified system.*

H5 accepted. R^2=0.573, F(1)= 401.281, p=0 (Table 13). Playfulness trait is a significant predictor of perceived enjoyment of the gamified system (t=20.032, p=0). Positive standardized coefficient β value of 0.757 indicated a strong positive relationship between playfulness trait and perceived enjoyment (Table 14). Higher level of playfulness is positively connected with higher enjoyment of the gamified system.

The results are in line with prior research. Wu and Holsapple (2014) reported the individual playfulness being a main motivator to seek entertainment-related experiences and engage in pleasure-oriented IT systems. Kang, Shin and Ponto (2020) supported this notion by uncovering a positive correlation between playfulness and higher praise of hedonic features of the product. In addition to this, Lin et al. (2022) reported playfulness as having the most significant positive impact on perceived customers' enjoyment. Considering this research results and previous researches findings, more playful users appreciation of hedonic system elements results in gamification triggered higher enjoyment of the system

Table 13

The results of linear regression with perceived enjoyment as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.573	1	401.281	0.000b
a Predictors: (Constant), Playfulness				
b Dependent Variable:Percieved Enjoyment				

Table 14

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.516	0.18		8.433	0
	Playfulness	0.746	0.037	0.757	20.032	0
a Dependent Variable: Percieved Enjoyment						

H6. *Playfulness has a positive impact on perceived risk of gamified system.*

H6 accepted. R^2=0.139, F(1)= 48.431, p=0. The results of regression indicated that playfulness explained 13,9% of the variance (Table 15). However, playfulness trait was a statistically significant predictor of perceived risk of gamified system (t=6.959, p=0). A positive moderate relation with standardized coefficient β value of 0. 373 were found between playfulness and perceived risk (Table 16). Thus, perceived risk increases with increase of playfulness level.

The findings of prior studies in connection with playfulness and risk relation are contradicting. Purnami and Agus (2021) findings suggested that playfulness impact on behavioral intention is diminished when users perceive high-level of risk of a playing game. In addition to this, individual's playfulness is negatively affected by perceived risk of a game, and vice versa (Purnami and Agus, 2021). On the other hand, Zhao and Renard (2018) reported that playfulness lowers perception of risk and is linked with an increase in behavioral intentions such as game forwarding and personal data sharing (Zhao and Renard, 2018). Considering the research results and prior findings, a possible explanation could be that a cognitive trade-off between enjoyment evoked by participation in gamified

system and risk of participating in gamified system. For a playful people, enjoyment from participation is more important than risks this participation might pose.

Table 15

The results of linear regression with perceived risk as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.139	1	48.431	0.000b
a Predictors: (Constant), Playfulness				
b Dependent Variable:Percieved Risk				

Table 16

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.907	0.291		6.55	0
	Playfulness	0.42	0.06	0.373	6.959	0
a Dependent Variable: Percieved Risk						

Belongingness:

H7. *Belongingness has a positive impact on perceived usefulness of the gamified system.*

H7 accepted. R^2=0.314, F(1)= 136.874, p=0 (Table 17). Belongingness is a significant predictor of perceived usefulness (t=11.699, p=0). Positive standardized coefficient β value of 0.56 indicated a moderate positive relationship between belongingness trait and perceived usefulness (Table 18). Thus, as it was predicted, higher level of belongingness predicts the increase in perceived usefulness of the gamified system.

The results of the research are consistent with prior study's findings. The positive relation between sense of belonging (inclusion / acceptance) and perceived usefulness as well as enjoyment of emoticon usage in mobile instant messenger services was revealed by Jung, Kim and Lee (2021). Moreover, Chang and Chen (2020) study revealed that participation in online parenting communities with the aim of parenting knowledge increases a sense of belongingness to a community as well as perceived usefulness. Perceived usefulness found to be more important than perceived enjoyment in terms of system adoption intention for respondents who have a high sense of belonging in the community (Li et al., 2018). Considering the research results and prior studies findings, people with

a higher sense of belonging want to contribute to the community and a gamified system might ease the way of doing so.

Table 17

The results of linear regression with perceived usefulness as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.314	1	136.874	0.000[b]
a Predictors: (Constant), Belongingness				
b Dependent Variable: Percieved Usefulness				

Table 18

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.4	0.269		5.198	0
	Belongingness	0.616	0.053	0.56	11.699	0
a Dependent Variable: Percieved Usefulness						

H8. *Belongingness has a positive impact on perceived enjoyment of the gamified system.*

H9 accepted. R^2=0.028, F(1)= 8.736, p<0.05 (Table 21). Belongingness found to be a significant predictor of perceived risk (t=2.956, p<0.05). A standardized coefficient β value of 0.168 indicated a positive but weak relation between belongingness trait and perceived risk (Table 22). Thus, higher level of belongingness was linked to an increase of perceived risk when participating in a gamified system.

Cunningham et al. (2005) imply that contributing to perceived risk factors are performance, physical, social and financial risks. Wong and San Hu (2011) revealed that a hesitation that interferes with organizational spirituality was mostly related to psychological and social risk which encompass risk of negative effect on self-esteem and personal image in the eyes of the community. Importantly, the same study indicated that a sense of belonging was found to act as a buffer against the negative emotions, emotional and behavioral obstacles as well as faced risks Wong and San Hu (2011).

Considering the research results and prior studied findings, due to belongingness trait core values being valuable and respected by others community members, the behavioral intentions that might threaten these values are perceived as high-stakes. Thus, the higher belongingness rate is connected to higher risk perception of engaging in gamified referral marketing programmes.

Table 19

The results of linear regression with perceived enjoyment as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.369	1	174.55	0.000[b]
a Predictors: (Constant), Belongingness				
b Dependent Variable: Percieved Enjoyment				

Table 20

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.736	0.253		6.849	0
	Belongingness	0.654	0.05	0.607	13.212	0
a Dependent Variable: Percieved Enjoyment						

H9. *Belongingness has a positive impact on perceived risk of the gamified system.*

H9 accepted. R^2=0.028, F(1)= 8.736, p<0.05 (Table 21). Belongingness found to be a significant predictor of perceived risk (t=2.956, p<0.05). A standardized coefficient β value of 0.168 indicates a positive but weak relation between belongingness trait and perceived risk (Table 22). Thus, higher level of belongingness was linked to an increase of perceived risk when participating in a gamified system.

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Table 21

The results of linear regression with perceived risk as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.028	1	8.736	0.000[b]
a Predictors: (Constant), Belongingness				
b Dependent Variable: Percieved Risk				

Table 22

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	2.837	0.359		7.909	0
	Belongingness	0.207	0.07	0.168	2.956	0.003
a Dependent Variable: Percieved Risk						

Risk-aversion:

H10. *Risk aversion has positive impact on perceived usefulness of gamified system.*

H10 rejected. R^2=0.091, F(1)= 30.091 p=0. The R^2 value was 0.091 which indicated that only 9.1% of variance can be explained by model (Table 23). However, risk aversion proved to be a statistically significant predictor of perceived usefulness (t=-5.486, p=0). Contrary to the initial hypothesis, that risk aversion has a negative standardized coefficient β value of -0.302 which indicates a negative moderate relation between risk aversion and perceived usefulness (Table 24). Thus, in accordance with the initial hypothesis, more risk-averse respondents perceived gamified system usefulness lower.

The prior research (Casaló, 2015; Xu et al. 2017) revealed that higher perceived usefulness for high risk-averse users are achieved by experts recommendation or opinion, well-known brand names, prior experience and reliability of a service provider. In addition to this, risk-aversion and risk are found to have a negative influence on perceived usefulness on credit cards (Trinh, Tran and Vuong, 2020). A cross-cultural study by Zhang et al. (2018) uncovered that risk-aversion is related to a culture setting a user is in. The study revealed that perceived risk had negatively influenced perceived usefulness of mobile payment in the USA sample than in the China sample (Zhang et al., 2018). Considering the research results and prior study's findings, the source of information or encouragement of an action plays an important role in forming a belief that this action might enhance user performance as well as decrease the perceived risk of an action. Contrary to an initial hypothesis based on prior research results (Leclercq, 2022; Otto, Fleming, Glimcher, 2016; Tan, Chen, 2021), the gamified system usefulness and users risk-aversion trait were found to have a negative correlation. One possible explanation is that a gamified referral brand system does not include elements like brand name or recommendations from other users which could help to create familiarity of service providers and as a result potentially help to achieve higher perceived usefulness.

Table 23

The results of linear regression with perceived usefulness as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.091	1	30.091	0.000[b]
a Predictors: (Constant), Risk-aversion				
b Dependent Variable: Percieved Usefulness				

Table 24

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
1		B	Std. Error	Beta		
	(Constant)	6.002	0.284		21.117	0
	Risk Aversion	-0.329	0.06	-0.302	-5.486	0
a Dependent Variable: Percieved Usefulness						

H11. *Risk aversion has a negative impact on perceived enjoyment of gamified system.*

H11 accepted. R^2=0.206, F(1)= 77.767, p=0 (Table 25). Risk aversion was a statistically significant predictor of perceived usefulness (t=-8.819 p=0). Negative standardized coefficient beta value of -0.454, proved that respondents reporting high level of risk-averse behavior perceives gamified system as less enjoyable. Thus, risk aversion negatively impacted perceived enjoyment. Analysis of regression coefficient showed that risk aversion has a negative standardized coefficient β value of -0.454 which indicates the negative moderate relation between risk-aversion and perceived enjoyment (Table 26). In accordance with an initial hypothesis, more risk-averse respondents perceived a gamified system as less enjoyable.

Gamification of referral marketing programme provide a surprise elements which, according to pleasure paradox, should create excitement even if user is risk-averse and prefer low uncertainty (Wilson, 2005). However, hedonic value of system is recognized only when user is exposed to no or low uncertainty level in a given situation (Xia et al., 2018). Risk-averse users reported to have a much lower likelihood of engaging into activities (Chan et al. 2020) or trust uncertain price promotions (Tan, Chen, 2021). Study by Zhang, Hou and Li (2020) revealed that uncertainty risk-averse respondents exposed to uncertainty experience intense negative emotional reaction. In addition to this, uncertainty creates a higher perceived risk was found to reduce the pleasure of an activity (Szymkowiak et al. 2021). Considering the research results and prior study's findings, the game elements in non-game context creates a surprise effect which aim is increase enjoyment. On the other hand, users with no prior experience of using gamified system or playing games, might perceive gamification as creating unusual and uncertain recommendation process that they have never encountered before. This could be a possible explanation of negative relation between enjoyment of a system and risk-aversion.

Table 25

The results of linear regression with perceived enjoyment as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.206	1	77.767	0.000[b]
a Predictors: (Constant), Risk-aversion				
b Dependent Variable: Percieved Enjoyment				

Table 26

The coefficients[a] of linear regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.25	0.261		27.827	0
	Risk Aversion	-0.485	0.055	-0.454	-8.819	0
a Dependent Variable: Percieved Enjoyment						

H12. *Risk aversion has a negative impact on perceived risk.*

H12 accepted. R^2=0.423, F(1)= 217.55, p=0 (Table 27). Risk aversion was a significant predictor of perceived risk (t=-14.811 p=0). Analysis of regression coefficient showed that risk aversion has a negative standardized coefficient β value of -0.651 which indicated the negative moderate relation between risk-aversion and perceived risk (Table 28). In accordance with the initial hypothesis, respondents who were more risk-averse (got lower score), perceived higher risk of a gamified system compared to respondents who were more risk-tolerant.

The results are consistent with prior studies (Oehler and Wedlich, 2018; Holzmeister et al. 2020) which revealed that more risk averse people tend to perceive investments in assets more risky compared to risk tolerant people. Moreover, risk-aversion found to be a rational benefit of service usage reducing factor (Tanner and Su, 2019). In addition to this, risk-averse people overemphasise risk factors which results in avoidance behavior (Wakker, 2010; Chan, 2020; Im et al., 2021). Considering the research results and prior study's findings, more risk-averse people tend to exaggerate potential risks and oversee rational benefits of a gamified system are potential reasons for higher perceived risk of the system.

Table 27

The results of linear regression with perceived risk as dependent variable

Model	R square	Anova[a]		
		df	F	Sig[b]
1	0.423	1	219.364	0.000[b]
a Predictors: (Constant), Risk-aversion				

b Dependent Variable: Percieved Risk

Table 28

The coefficients[a] of linear regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.528	0.253		29.717	0
	RiskAverse	-0.792	0.054	-0.651	-14.811	0
a Dependent Variable: Percieved Risk						

Perception of the system:

H13. *Perceived usefulness of gamified system has a positive impact on intention to recommend.*

H13 accepted. R^2=0.220, F(1)= 84.37, p=0 (Table 29). Perceived usefulness found to be a significant predictor of intention to recommend (t=9.185 p=0). Positive value of standardized coefficient β value of 0.469 indicated a positive moderate relation between perceived usefulness and intention to recommend (Table 30). In accordance with an initial hypothesis, higher intention to recommend can be achieved by increasing perceived usefulness of the gamified system.

The research results are consistent with prior findings which imply that perceived usefulness is an important factor fostering behavioral intention. A study about gamification usage in promoting mobile payment technology adoption by Wong et al. (2020) revealed that perceived enjoyment had a positive influence on perceived usefulness and as a result intention to adopt technology. Moreover, the same study findings imply that perceived usefulness is a mediator between perceived effectiveness and adoption as well as perceived ease of use and adoption of technology (Wong et al., 2020). In addition to this, perceived usefulness of gamified technology utility was found to have a positive impact on actual use of gamification for training (Vanduhe, Nat and Hasan, 2020). Positive impact of perceived usefulness on continuous usage of online recommendation was reported by Ashraf et al. (2020). Perceived usefulness creates a positive experience while using the system (Casaló, Flavián, and Ibáñez-Sánchez, 2017). For usage of social network (Facebook) perceived usefulness was even more important determinant of intention to use social network than perceived entertainment (Sharma, Joshi, Sharma, 2016). Considering the research results and prior study's findings, perceived

usefulness is one of the most important determinants of behavioral intentions - adoption, recommendation, usage and continued usage of different systems.

Table 29

The results of linear regression with intention to recommend as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.22	1	84.37	0.000[b]
a Predictors: (Constant), Perceived Usefulness				
b Dependent Variable: Intention to Recommend				

Table 30

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	2.557	0.247		10.372	0
	Percieved Usefulness	0.489	0.053	0.469	9.185	0
a Dependent Variable: Intention to Recommend						

H14. *Perceived enjoyment of gamified system has a positive impact on intention to recommend.*

H14 accepted. R^2=0.561, F(1)= 381.698, p=0 (Table 31). Perceived enjoyment was a significant predictor of intention to recommend (t=19.537 p=0). Positive value of standardized coefficient β 0.469 indicated a positive moderate relation between perceived enjoyment and intention to recommend (Table 32). In accordance with an initial hypothesis, higher intention to recommend can be achieved by increasing perceived enjoyment of the gamified system.

The research results are consistent with prior findings. Wong et. al (2021) suggested that perceived enjoyment which is directly linked to attitude enhancement is a sign of a gamification effectiveness. Study by Zhao and Renard (2018) imply that motivation to play games are triggered by intrinsic enjoyment of the game. Games induce a high level of enjoyment, concentration and help to

achieve flow state. Perceived enjoyment and playfulness found to have a positive impact on game forwarding behavior (Zhao and Renard, 2018). In addition to this, perceived enjoyment is found to be a determinant of impulsive purchase intention by Sharma, Joshi and Sharma (2016). Moreover, perceived enjoyment and curiosity were predictors of continued intention to use game applications in social networks (Wu et al., 2018). Hung et al. (2016) proved a greater enjoyment of social networking sites positively affects attitude. A study by Xu, Peak and Prybutok (2015) aimed to identify reasons for mobile app recommendation. Importance of hedonic benefits including app aesthetics and enjoyment be a major predictor of intention to recommend app to others Xu, Peak and Prybutok (2015). Considering the research results and prior study's findings, game elements introduced in referral marketing programmes enforces hedonic value – perceived enjoyment of the gamified system. The perceived enjoyment is proved to be a significant determinant of system adoption, continued usage and recommendation of it to others.

Table 31

The results of linear regression with intention to recommend as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.561	1	381.698	0.000[b]
a Predictors: (Constant), Perceived Enjoyment				
b Dependent Variable: Intention to Recommend				

Table 32

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	0.761	0.209		3.637	0
	Percieved Enjoyment	0.796	0.041	0.749	19.537	0
a Dependent Variable: Intention to Recommend						

H15. *Perceived risk of gamified system has a negative impact on intention to recommend.*

H15 rejected. R^2=0.033, F(1)= 11.351, p=0001. The adjusted R^2 value was 0.033 which indicates that only 3,3% of variance can be explained by model (Table 33). Perceived risk found to be a significant predictor of intention to recommend. A standardized coefficient β value of 0.191

indicated a positive but weak relation between perceived risk of gamified system and intention to recommend (Table 34). In accordance with an initial hypothesis, higher intention to recommend can be achieved by increasing perceived enjoyment of the gamified system.

The research results are consistent with prior findings which imply the negative perceived risk impact on behavioral intention. According to Wong et al. (2020) perceived risk is the biggest obstacle to transforming a favorable attitude into a behavioral intention. Trinh, Tran and Vuong (2020) supported this notion by indicating perceived risk as having the biggest negative impact on intention to use a credit card. In addition to this, perceived risk is found to have a negative impact on brand loyalty (Hasan, Shams and Rahman, 2021). Kaur and Arora (2020) emphasizes the trust-building mechanism creation due to their survey findings that perceived risk and behavioral intention relation is moderated by trust. Considering the research results and prior study's findings, participation in a gamified system might pose perceived risks on personal image as well as performance related (time spent) risks. The negative impact of perceived risk on intention to recommend are consistent with prior research which reported risk as being one of the main barriers converting users' positive attitude towards system to intention to recommend.

Table 33

The results of linear regression with intention to recommend as dependent variable

Model	**R square**	**Anova[a]**		
		df	F	Sig[b]
1	0.037	1	11.351	.001[b]
a Predictors: (Constant), Perceived Risk				
b Dependent Variable: Intention to Recommend				

Table 34

The coefficients[a] of linear regression model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	4.059	0.216		18.777	0
	Perceived Risk	0.178	0.053	-0.191	3.369	0.001
a Dependent Variable: Intention to Recommend						

Table 35 depicts the summary of research results by indicating a standardized coefficient β values and direction of impact.

Table 35

The summary of coefficients[a] of linear regression model

	Perceived usefulness	**Perceived enjoyment**	**Perceived risk**	**Intention to recommend**
Materialism	-0.325	-0.325	Not significant p>0.05	
Playfulness	0.613	0.757	0.373	
Belongingness	0.56	0.607	0.168	
Risk-aversion	-0.302	-0.454	-0.651	
Perceived usefulness				0.469
Perceived enjoyment				0.749
Perceived risk				-0.191

In line with the conceptual model, the personality traits impacted the perception of the system which as a result was intended to recommend. Perceived enjoyment found to have a largest level of impact (β = 0.749) on intention to recommend, followed by perceived usefulness (β = 0.469). In addition to this, perceived enjoyment was indicated as the most influential predictor of intention to recommend. While, perceived risk (β= -191) found to have a weak negative impact on intention to recommend.

The perception of the system was confirmed to be impacted by personality traits. From the set of 4 personality traits studied in this research, only materialism impact on perceived risk found to be not significant (p>0.05). All other personality traits were found to be significant predictors of perception of the gamified system which consists of perception of usefulness, enjoyment and risk. Playfulness trait found to be the most influential variable in the entire sample with positive impact on all 3 predictors of intention to recommend – perceived usefulness, playfulness and risk (β= 0.613, β= 0.757, β= 0.373, respectively). Belongingness was found to have a moderate positive impact on perceived usefulness, enjoyment and risk (β= 0.56, β= 0.607, β= 0.168, respectively). Nature of belongingness and playfulness positively increases the perception of usefulness and enjoyment which as a result have a positive impact on intention to recommend. Moreover, research data revealed that belongingness and playfulness had a positive correlation with perceived risk of the system which impacts intention to recommend negatively. However, belongingness and playfulness traits effect on risk (β= 0.373, β=0.168, respectively) is less influential than on usefulness and enjoyment.

The two other personality traits - risk-aversion and materialism discovered to be negative predictors of perception of the system. Risk-aversion found to be the most influential variable in terms of negative impact on all 3 predictors of intention to recommend. High-risk aversion was the strongest predictor of negative impact on all 3 predictors of intention to recommend – usefulness (β= -0.302), enjoyment (β= -0.454) and risk (β= -0.652). High risk-averse system users' negative perception of the system results in negative intention to recommend service promoted through this system. Materialism was the second negative predictor of intention to recommend due to the negative impact on perception of the system - usefulness (β= -0.302) and enjoyment (β= -0.454).

5. CONCLUSION AND RECCOMENDATIONS

5.1 Conclusion

Intense competition, fast-changing competition landscape and costs of new client acquisition encouraged business to look for new, more efficient ways to attract customers. One of the ways is the referral marketing programs which encourages current clients to become brand advocates (referrers). Current clients become an intermediary in business to new potential clients' communication process. Loyal clients recommendations lower companies' clients acquisition costs because recommendations by current clients are more trusted by potential clients than advertisements done by company for product or service. To achieve these benefits from loyal clients, businesses face a challenging task to create a well-designed and intention to recommend stimulating referral marketing programs. The challenge consists of understanding and stimulating drivers of intentions to recommend which originates from people's perception of referral marketing programs (system).

In this research, gamification was introduced with the aim to positively impact perception of the referral marketing program by creating a pleasurable, fun-related and flow state promoting experience while recommending VPN service through this gamified system. The simulation of referral marketing programs involved commonly used game elements - leaderboard, points, bonus, progress bar and time manipulation. Thus, the main motivation to apply gamification elements originated from a variety of research (Mattke and Maier, 2021; Mekler et. al, 2017) which proved gamification being a trigger of intrinsic motivation even then people do not have initial motivation for behavioural intention.

The empirical research proved that all the predictors of intention to recommend are significant. As expected, this empirical research proved that perception of the gamified referral marketing system was subjective and impacted by individual traits of referrer. Empirical analysis found that all four personality traits of materialism, playfulness, risk-averse and belongingness have a significant impact on perception of the system – usefulness, playfulness and risk and, as a result, on intention to recommend. It is important to mention that materialism was the only personality trait found to have no significant impact on perceived risk. Perceived usefulness, enjoyment and risk are critical predictors of intention to recommend. The biggest positive influence on intention to recommend had a perceived enjoyment of the system, followed by usefulness. Contrary to the impact of perceived usefulness and enjoyment, high perceived risk decreased the intention to recommend. Thus, the

perceived enjoyment and usefulness enhanced an intention to recommend while perceived risk acted as a barrier for intention to recommend.

Even all of the factors had a significant impact on the intention to recommend. However, the strength and direction of impact differed. This allowed to separate factors in two groups – **enhancing the intention to recommend** and **diminishing intention to recommend.** The individual traits enhancing positive perception of the system and as a result intention to recommend are playfulness and belongingness. Research revealed that more playful system users experience fun and highly value game elements in terms of their performance enhancement while recommending a VPN service. As a result, increase in perceived enjoyment and usefulness positively impacts intention to recommend. Similar levels of positive impact on perceived playfulness and usefulness were reported by respondents with a higher sense of belongingness. Even though both traits were found to be sensitive to perceived risk, the gains forecasted from gamified system were higher than perceived losses. The factors diminishing perception of the system and as a result intention to recommend were materialism and risk-averse. Highly risk-averse individuals evaluated gamified system as less useful, enjoyable and potentially causing more losses than gains. Game elements in non-game context creates a surprise effect which, for more risk-averse people, increases perception of risk rather than enjoyment and usefulness. Materialistic people found to value the system negatively in terms of enjoyment and usefulness of the gamified system. Empirical research demonstrated that materialistic nature focuses on seeking gains or rewards as well as activities that enhance self-image, self-esteem and status in society. This implies that game elements in referral marketing program were not enough to generate the stronger effect on intention to recommend for highly materialistic people. Thus, intention to recommend in a gamified referral marketing program (system) was higher by playfulness and belongingness trait posing people, while materialistic personalities and high risk-averse traits posing people reported lower intention to recommend.

This master thesis proved that individual traits are important factors impacting the intention to recommend and should not be overlooked by the companies planning referral marketing programs. Moreover, it emphasises that intention to recommend is not only related to the system used by loyal customers itself, but more to a gamified system fit as a stimulus for motivating different individuals' intentions.

Limitations and further research directions

One of the main research limitations evolves from a research sample because research data represents only respondents from Lithuania, research results are cultural bias and might not be directly applicable in different cultural settings which are more distant from Lithuanian cultural settings. Thus, in the future, it would be worth to carry out studies that focus on different cultures' individual traits and their impact on perception of the gamified referral marketing programs in cross-cultural settings. Moreover, this research does not compare the effect of gamified referral marketing system versus non-gamified system and how gamification presence impacts the perception of the system. In this research, the usage of gamification as an intrinsic motivation trigger to recommend was based on previous research results which proved this positive impact. However, further research could be conducted to study how different individual trait possession impacts the perception of gamified versus non gamified systems. In addition to this, this research does not study individual traits perception on different gamification elements and their effect on intrinsic motivation. Thus, the future research could be conducted to analyze individual traits' impact on perception of different gamification elements.

5.2 Recommendations

Individual traits found to shape intention to recommend in gamified referral marketing programs. Thus, materialism, playfulness, belongingness and risk averse traits should not be overlooked when planning a gamified referral marketing programs. Thus, considering the master thesis results, following recommendations are proposed:

First, companies should test what triggers higher intention of their loyal clients to recommend a service or product - straightforward monetary incentives or gamified process of recommendation that enforces pleasure out of the recommendation process. This could be achieved through different messages or / and gamification elements testing with all loyal clients databases. After all tests are done, the loyal clients database can be segmented according to response to pleasure-oriented or monetary-incentives oriented triggers of intention to recommend. For the pleasure-oriented clients, who might be posing a higher playfulness and belongingness levels, referral marketing programs should include gamification elements to enhance enjoyable and fun experience loyal clients are potentially seeking. On the other hand, for monetary-incentives-oriented loyal clients, a clear and straightforward gain from intention to recommend should be stated. Only gamification of referral marketing programs without any incentives does not trigger intention to recommend loyal clients of highly materialistic nature. Thus, the identification of individual traits allows companies to choose best triggers of intention to recommend and increase the chances of product or service being referred.

Second, it is important to develop well-designed and credible gamified referral marketing programs. The main reason is that perceived risk is an important factor reducing intention to recommend even if other intentions to recommend enhancing factors such as enjoyment and usefulness are present. Even loyal clients value enjoyment and pleasure given by gamified referral marketing programs, playfulness, belongingness and high-risk aversion posing loyal clients intention to recommend are impacted by potential risks of the program. The recommendation is not to overcrowd the system with various game elements which might increase confusion and complicate the way people can recommend products or services. Moreover, clear instructions of goals and main rules have to be present at any given time in the system used to recommend a product or service. In addition to this, assessing the loyal clients feedback on referral marketing programs might help to identify the potential seen by clients that business missed when launching referral marketing programs.

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THE IMPACT OF MATERIALISM, PLAYFULNESS, BELONGINGNESS AND RISK AVERSION ON INTENTION TO RECOMMEND IN GAMIFIED REFERRAL MARKETING PROGRAMME

Gitana STALMOKAITĖ

Master thesis

Integrated marketing and communication programme

Faculty of Economics and Business Administration, Vilnius University, 2022

Supervisor Dr. Ignas Zimaitis, Vilnius, 2022

SUMMARY

62 pages, 35 tables, 1 figurine

The main aim of the master thesis was to investigate how materialism, playfulness, belongingness, risk aversion impact the perceived usefulness, enjoyment and risk of a gamified system and as a result intention to recommend. In order to achieve this aim, the objectives of this thesis were: analyze individual traits affect on intention to recommend from theoretical perspective; To apply TAM and UTAUT models to analyze perception of the system; To develop methodology for empirical research and research impact of factors to intention to recommend; To collect and analyze data and apply findings to provide insights and recommendation.

To achieve the master thesis aim, the methods used were literature analysis and reliability, linear regression for statistical analysis of quantitative data. First and second chapters of the Master thesis were dedicated for analysis of individual traits and their effect on perception of the system and intention to recommend. In the third chapter, methodology of empirical research is presented. For this empirical research, a gamified referral marketing system (gamified system) was created and used to encourage respondents' intention to recommend VPN service.

Empirical analysis found that all four personality traits of materialism, playfulness, risk-averse and belongingness had a significant impact on perception of the system – usefulness, playfulness and risk and, as a result, on intention to recommend. Higher playfulness and belongingness were positively linked to perception of the system as more enjoyable and useful. On the other hand, higher materialism

and risk-aversion were linked to worsen perception of enjoyment and usefulness of the gamified system. Moreover, perception of the system, defined by usefulness, enjoyment and risk, found to have a significant impact on intention to recommend. The strongest impact on intention to recommend had perceived enjoyment and usefulness. While, perceived risk had a negative impact on intention to recommend. Higher playfulness, belongingness and risk-aversion reported respondents were found to be the most sensitive to perceived risk while any significant relationship between materialism and perceived risk was found.

Based on literature analysis and empirical research findings, two factors groups - **enhancing the intention to recommend** and **diminishing intention to recommend** were identified. The first group involves factors such as playfulness, belonginess, perceived usefulness and enjoyment. The second one involves high materialism and risk-aversion as well as high perceived risk. This master thesis proved that individual traits are important factors impacting the intention to recommend and should not be overlooked by the companies planning referral marketing programs.

MATERIALIZMO, ŽAISMINGUMO, NORO PRITAPTI IR RIZIKOS VENGIMO ĮTAKA NORUI SUTEIKTI REKOMENDACIJĄ SUŽAIDYBINTOJE REKOMENDACIJŲ RINKODAROS PROGRAMOJE

Gitana STALMOKAITĖ

Magistro darbas

Rinkodaros ir integruotos komunikacijos studijų programa

Integrated marketing and communication programme

Ekonomikos ir verslo administravimo fakultetas, Vilniaus Universitetas, 2022

Darbo vadovas Dr. Ignas Zimaitis, Vilnius, 2022

SANTRAUKA

62 puslapiai, 35 lentelės, 1 paveikslėlis

Pagrindinis magistro darbo tikslas yra išanalizuoti, kokią įtaką materializmas, žaismingumas, noras pritapti ir rizikos vengimas turi norui suteikti rekomendaciją sužaidybintoje rekomendacijų rinkodaros programoje. Šiam tikslui įgyvendinti autorius iškėlė šiuos uždavinius: Išanalizuoti individualius bruožus, turinčius įtakos ketinimui rekomenduoti; Pritaikyti TAM ir UTAUT modelius analizuojant numanomo naudingumo, malonumo ir rizikos poveikį ketinimui rekomenduoti; Sukurti empirinio tyrimo metodologiją, siekiant ištirti veiksnių ir ketinimo rekomenduoti ryšį; Surinkti ir išanalizuoti empirinio tyrimo duomenis; Remiantis empirinio tyrimo išvadomis, pateikti įžvalgas ir rekomendacijas.

Magistro darbo tikslui pasiekti buvo naudojama mokslinės literatūros analizė ir patikimumo bei tiesinės regresijos metodai kiekybinių duomenų statistinei analizei. Pirmajame ir antrajame darbo skyriuose analizuojami ketinimą rekomenduoti skatinantys veiksniai, TAM ir UTAUT modeliai bei asmenybės bruožų įtaka įsitraukimui bei skirtingų sistemų suvokimui. Tyrimui buvo sukurta sužaidybinta rekomendacijų rinkodaros programa, kuria respondentai buvo skatinami rekomenduoti VPN paslaugą.

Empirinio tyrimo rezultatai patvirtino, kad visi keturi asmenybės bruožai – materializmas, žaismingumas, noras pritapti ir rizikos vengimas turi įtakos sužaidybintos rekomendacijų rinkodaros

sistemos suvokimui – numanomam naudingumui, malonumui ir rizikai. Respondentai, kurie yra labiau žaismingi ir labiau siekia pritapti, įvertino sužaidybintą sistemą kaip malonesnę ir naudingesnę. Kita vertus, į materializmą ir rizikos vengimą linkę respondentai, sužaidybintos sistemos naudingumą ir malonumą vertino prasčiau. Vienintelis asmenybės bruožas – materializmas neturėjo reikšmingos įtakos numanomai rizikai. Taip pat, empirinio tyrimo rezultatai parodė, kad numanomas naudingumas, malonumas ir rizika yra svarbūs ketinimą rekomenduoti įtakojantys veiksniai. Didžiausią teigiamą įtaką ketinimui rekomenduoti turėjo numanomas malonumas ir naudingumas. O neigiamą įtaką ketinimui rekomenduoti turėjo numanoma rizika. Numanoma rizika buvo vienintelis veiksnys, kuris neigiamai veikia ketinimą rekomenduoti žaismingumo, noro pritapti ir rizikos vengimo asmenybės bruožus turinčius respondentus.

Literatūros analizė ir empirinis tyrimas leido padaryti išvadas, kad visus veiksnius, turinčius įtaką ketinimui rekomenduoti, galima suskirstyti į dvi grupes. Pirmoji, stiprinantys ketinimą rekomenduoti – aukštas žaismingumas ir noras pritapti bei aukštas numanomas sistemos naudingumas ir malonumas. Antroji, mažinantys ketinimą rekomenduoti – aukštas materializmas ir rizikos vengimas bei numanomas sistemos rizikos lygis. Lojalių klientų asmenybės bruožai yra svarbūs veiksniai, kurie veikia jų požiūrį į rinkodaros rekomendacijų programą ir ketinimą rekomenduoti pasinaudojant ja.

ANNEXES

Annex 1. Empirical research questionnaire

Part 1 of questionnaire:

Question 1: Rate the level of agreement with each statement provided below:

	Strongly disagree (1)	**Disagree (2)**	**Slightly disagree (3)**	**Neither (4)**	**Slightly Agree (5)**	**Agree (6)**	**Strongly agree (7)**
I admire people who own expensive homes, cars, and clothes. (S)							
I try to keep my life simple, as far as possessions are concerned. (C) (R)							
My life would be better if I owned certain things I don't have. (H)							
Buying things gives me a lot of pleasure. (C)							
I'd be happier if I could afford to buy more things. (H)							
I like to own things that impress people. (S)							
I like a lot of luxury in my life. (C)							
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like. (H)							

Question 2: Rate the level of agreement with each statement provided below:

	Strongly disagree (1)	Disagree (2)	Slightly disagree (3)	Neither (4)	Slightly Agree (5)	Agree (6)	Strongly agree (7)
I am a playful person.							
Good friends would describe me as a playful person.							
I frequently do playful things in my daily life.							
It does not take much for me to change from a serious to a playful frame of mind.							
Sometimes, I completely forget about the time and am absorbed in a playful activity.							

Question 3: Rate the level of agreement with each statement provided below:

	Strongly disagree (1)	Disagree (2)	Slightly disagree (3)	Neither (4)	Slightly Agree (5)	Agree (6)	Strongly agree (7)
When I am with other people, I feel included.							
I have close bonds with family and friends.							
I feel accepted by others.							
I have a sense of belonging.							
I have a place at the table with others.							
I feel connected with others.							

I feel like an outsider.							
I feel as if people do not care about me.							
Because I do not belong, I feel distant during the holiday season.							
When I am with other people, I feel like a stranger.							
Friends and family do not involve me in their plans.							

Question 4: Rate the level of likelihood of engaging in activities stated below:

	Extremely unlikely (1)	**Unlikely (2)**	**Slightly unlikely (3)**	**Neither (4)**	**Slightly likely (5)**	**Likely (6)**	**Extremely likely (7)**
Admitting that your tastes are different from those of your friends.							
Arguing with a friend who has a very different opinion on an issue.							
Dating someone that you are working with.							
Deciding to share an apartment with someone you don't know well.							
Disagreeing with your parents on a major issue.							
Moving to a new city.							

Openly disagreeing with your boss in front of your coworkers.							
Speaking your mind about an unpopular issue at a social occasion.							
Wearing unconventional clothes.							

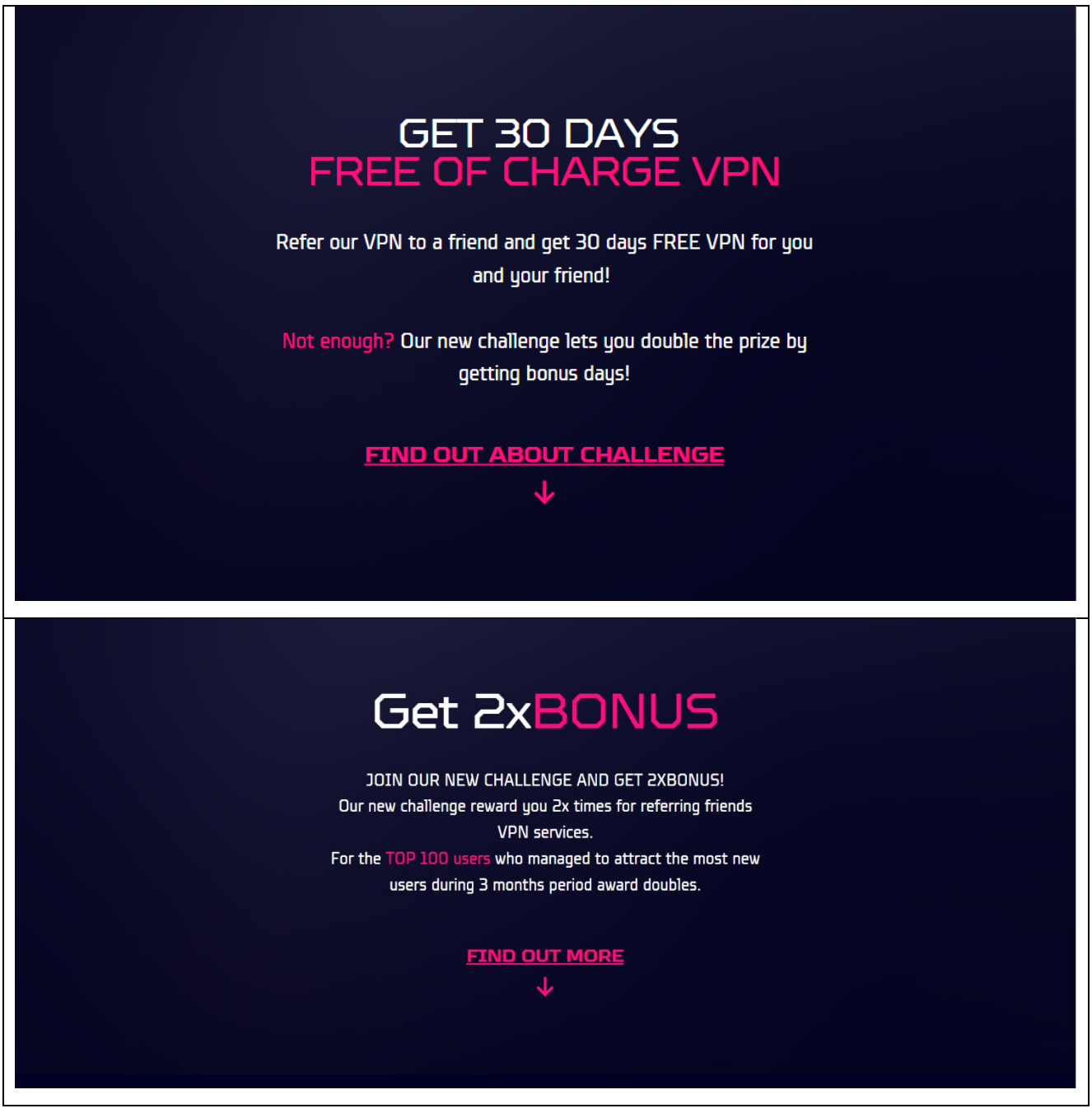
Part 2 of questionnaire:

Before moving on to the next part of the questionnaire, please imagine that You are a user of the VPN (Virtual Private Network*) and You are asked to recommend VPN service to new users. You are provided with information which You will see in this gamified system mockup: https://vpngamifcationsurvey.my.canva.site/ or in the pictures below.

For every new user attracted, You get the points and bonus points which later on can be exchanged into free of charge VPN service for a specific amount of time. In leaderboards and progress bars, You can follow your performance and compare performance with others. Users can also see the time limitation of this challenge.

The main aim of all these actions is to encourage You to to recommend VPN service by sharing a link to start to use VPN service. Based on this, please provide answers below.

Please base your answers on opinion about gamified system presented.


GET 30 DAYS
FREE OF CHARGE VPN
Refer our VPN to a friend and get 30 days FREE VPN for you and your friend!
Not enough? Our new challenge lets you double the prize by getting bonus days!
FIND OUT ABOUT CHALLENGE
Get 2xBONUS
JOIN OUR NEW CHALLENGE AND GET 2XBONUS!
Our new challenge reward you 2x times for referring friends VPN services.
For the TOP 100 users who managed to attract the most new users during 3 months period award doubles.
FIND OUT MORE

RULES

1. INVITE FRIENDS

Refer VPN services to a friend by pressing "Invite friends" and sharing automatically generated link to our services.

2. COLLECT POINTS

For each new person joined our VPN family, you will earn 30 days free of charge VPN. Free of charge days can be summed.

LET'S START

INVITE FRIENDS

3. BE TOP 100 USERS AND GET A BONUS

At the end of out limited time 3 month special challenge, the TOP100 user with most people attracted will double award!

LEADERBOARD

CHECK OUT YOUR STANDING

Leaderboard is the easiest way to compare your performance to other users!

Rank	User Name	People invited and joined!	AWARD	Bonus! 2X Free VPN days!
1	Lucas_19	55	1650	3300
2	Stefan	49	1470	2940
3	Francesco Gallimi	48	1410	2880
4	AllineR	47	1410	2820
100	David Picc	6	180	360
102	YOU	3	90	3 people 3 MORE TO GET a BONUS!

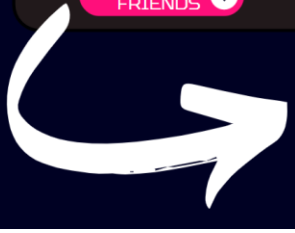
YOU HAVE NEVER BEEN CLOSER TO TOP 100 USERS WHO GET BONUS - 2X FREE VPN DAYS!

You HAVE NEVER BEEN CLOSER TO top 100 USERs WHO GET BONUS - 2x FREE VPN DAYS!

AND You are missing only two people! Invite PEOPLE to join our VPN family and get 2X BONUS!

TIME LEFT TO COLLECT BONUS: **12 DAYS 03H 40 MIN**

INVITE FRIENDS



Rank	User Name	People invited and joined!	AWARD	Bonus! 2X Free VPN days!
100	David Picc	6	180	360
102	YOU	3	90	3 people 3 MORE TO GET a BONUS!

Question 5: Rate the level of agreement with each statement provided below:

	Strongly disagree (1)	**Disagree (2)**	**Slightly disagree (3)**	**Neither (4)**	**Slightly Agree (5)**	**Agree (6)**	**Strongly agree (7)**
Using presented gamified system in referring a VPN service for a new user would enable me to accomplish tasks more quickly.							
Using presented gamified system in referring a VPN service for a new user would improve my performance.							
Using presented gamified system in referring a VPN service for a new user would increase my productivity.							
Using presented gamified system in referring a VPN service for a new user would enhance my effectiveness on the task.							
Using presented gamified system in referring a VPN service for a new user would make it easier to do this task.							
I would find presented gamified system in referring a VPN service for a new user useful.							

Question 6: Rate the level of agreement with each statement provided below:

	Strongly disagree (1)	**Disagree (2)**	**Slightly disagree (3)**	**Neither (4)**	**Slightly Agree (5)**	**Agree (6)**	**Strongly agree (7)**
I would find the presented gamified system enjoyable.							
I would find the presented gamified system pleasant.							
I would find the presented gamified system exciting.							
I would find the presented gamified system interesting.							

Question 7: Rate the level of likelihood of impact that participation in gamified system to refer VPN service might have on You:

	Extremely unlikely (1)	**Unlikely (2)**	**Slightly unlikely (3)**	**Neither (4)**	**Slightly likely (5)**	**Likely (6)**	**Extremely likely (7)**
By using gamified system, it is highly likely that my personal information will be used by other people.							
Participating in gamified system, endangers my privacy because of wrongful use of my personal data.							
Sometimes I experience unnecessary stress while connected to gamified system.							

Sometimes, when I am participating in gamified system I feel anxious.							
I am concerned about wasting too much time participating in a gamified system.							
I am concerned about having to waste time on task related to participation in a gamified system.							
Participating in gamified system can worsen the image other people have of me.							
Participating in gamified system makes some people whose opinion I value think I am not acting correctly.							

Question 8: Rate the level of likelihood of Your intention to recommend VPN service using presented gamified system:

	Extremely unlikely (1)	**Unlikely (2)**	**Slightly unlikely (3)**	**Neither (4)**	**Slightly likely (5)**	**Likely (6)**	**Extremely likely (7)**
I would say positive things about this VPN service and gamified system.							
9) I would recommend use this VPN service to anyone who seeks my advice.							

9) I do not encourage friends to use this VPN service.							
9) I hesitate to refer my acquaintances to this VPN service.							

Question 9: Your gender:

- Female
- Male

Question 10: Your age:

- 18-24
- 25-34
- 35-44
- 45-54
- 55>