

GAMIFICATION MODEL AS A BUSINESS STRATEGY FOR MSMEs IN INDONESIA

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Abstract

Gamification is a game design in a non-game context that can be applied to the Micro, Small, and Medium Enterprises (MSMEs) business. This study aims to see how the role of gamification can be a model in MSMEs business activities and performance. The sample is 13 of 34 MSMEs business managed by students at the Provincial level in Indonesia who are student representatives at the Branch Leaders, Branch Managers, and Regional Leaders in a hierarchical structure. First, the root of the problem is viewed from secondary data through theoretical studies (literature reviews, reports, and reputable media data) and observations of empirical aspects (observation and interviews). In the next stage, the data is processed using the Nvivo 12 application with coding similarity analysis. Then the results of the study are used as a reference and conclusions through the data obtained. Based on the analysis results, the study agenda was prepared to answer the challenge of demographic bonuses and the middle-income trap on the contribution of MSMEs in facing changes in the economic order in the new normal era. The implication is to become a business model for MSMEs in overcoming human capital problems by encouraging creative and innovative attitudes and traits. Furthermore, the application of gamification as a business strategy shows an interconnected and supportive soul as a solution with an impact on behavior change, motivation, and psychological effects of entrepreneurship. Thus, users, such as managers, employees, dan customers, to be involved in the selling process through gamification.

Keywords: *Gamification, Behavior Change, Motivation, Psychological Effects.*

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INTRODUCTION

The emergence of the coronavirus pandemic (Covid-19), which occurred suddenly at the beginning of this year, had a massive impact on people's lives, including the economy. This condition has not only disrupted the economy but has also interrupted the movement of the Indonesian economy. For example, based on data for the first quarter of 2020 against the first quarter of 2019 of 2.97 percent (year-on-year), slowing down compared to the achievement in the first quarter of 2019, which was 5, 07 percent (Badan Pusat Statistik, 2020). Of course, this is closely related to the MSMEs business movement with social restriction policies that impact decreasing business activities and resulting in millions of layoffs.

Besides that, changes in the economic order were increasingly echoed (Aramia Fahriyah, 2020). As a result of the fluctuating system, employees become discouraged with decreased competitiveness, employees are laid off, income falls due to reduced working hours, most sales processes go online, and the system of managerial processes must be updated immediately. However, it is not much different from the organizational aspect, which is the locomotive in developing knowledge and skills for employees (Hendrawan et al., 2018). The shift in Indonesia's status to an upper-middle-income country based on the World Bank's classification of national GDP per capita in 2019 can be used as a good momentum to lift the national economy going forward. Towards Indonesia in 2045, Indonesia has several main challenges, including optimizing opportunities from the demographic bonus, coupled with the pandemic, to escape the middle-income trap (Bappenas, 2020).

The Rapid Assessment Survey on the Impact of the COVID-19 Pandemic on the Performance of Indonesian MSMEs was conducted online from 1 – 20 May 2020. It involved 679 valid respondents with the main livelihood as business actors (LIPI, 2020). Survey data shows that during the pandemic, 94.69% of businesses experienced a decline in sales. Based on business scale, sales decreased by more than 75%, experienced by 49.01% ultra-micro businesses, 43.3% micro-businesses, 40% small businesses, and 45.83% medium businesses. Therefore, it is necessary to make changes to the business strategy carried out by MSMEs to overcome this problem. One of the business strategies in the digital era is to attract users such as managers, employees, and customers by involving users through gamification.

In a business context, the relevance of gamification can be seen from a business point of view (Kuratko & Morris, 2018). Gamification has been defined as using game design elements in a non-game context (Deterding, 2011). In line with this, Robson et al. (2016) define it as applying game design principles to change behavioral conditions in non-games. Gamification studies have been applied primarily to motivate users to engage in various programs by making them more enjoyable to use (Deterding, 2011). Gamification is associated in similar studies with positive results regarding engagement, motivation, and satisfaction (Deterding et al., 2011; Huotari & Hamari, 2012; Hamari et al., 2014; Seaborn & Fels, 2015).

One way to deal with it is by improving entrepreneurship and entrepreneurial strategies (Remi, 2018). Therefore, it is necessary to update strategies that can be applied to foster motivation and increase entrepreneurial behavior and strengthen psychological effect activities. In this case, the strategy appropriately used will affect the stability of the business in the future.

Even so, the low percentage of the economy in Indonesia is a challenge for the country to maximize the demographic bonus that will occur in the vulnerable 2030-2045 years, where human capital has been the main problem. Especially for the MSMEs business. The results showed that the main problem of MSMEs is human capital or human resources that have not been used as assets (Massey & Campbell, 2013). In fact, with qualified human resources, various creative and innovative steps will be created to sustain their business (Okoye & Ezejiolor, 2013).

Many MSMEs players are walking in place in developing their businesses because of the lack of innovation. Finally, many businesses do not last long, then go bankrupt because the products or services offered are not strong or cannot compete. In addition, there are still few local MSMEs products that have succeeded in penetrating the international market. Therefore, thinking creatively and being innovative in producing goods and services is the task of MSMEs actors as a strategy. Even though the goods offered are of the same type, making a product has a high selling value that makes consumers have many choices.

In this study, the authors analyzed the relationship between the strategy of implementing gamification in the MSMEs business, although it was still less researched in the business literature. Many of these areas are handled separately, especially from an organizational perspective (Huotari & Hamari, 2017; Vesa et al., 2017), but changes in behavior, motivation, and psychological effects can be used as benchmarks (Mwasalwiba, 2010; Liñán et al., 2011). In addition, the authors bridge these three areas by investigating how gamification can be a business recovery and improvement strategy for dealing with the middle-income trap.

This study tries to contribute to MSMEs businesses that offer linkage solutions related to gamification to stimulate changes in behavior, motivation, and psychological effects. Thus, it will discuss the possible consequences of adopting approaches such as exploration of entrepreneurial training, contributing to organizational knowledge, and education on training for entrepreneurial behavior with gamification as a business strategy.

RESEARCH METHOD

To address the identified research gaps and investigate this research adopting qualitative strategy research, using literature studies (reputable journal sources), in-depth interviews. The research process is indispensable in determining the research flow chart and the initial research concept. In this study, a research flow chart was formed, as shown in the following figure 1.

In this study, data processing was carried out by collecting data through literature studies (well-known journals) and in-depth interviews based on Robsson et al. (2016). It investigated how companies apply games with traditional approaches to create more exciting experiences by facilitating behavior change through employee involvement and customers. Furthermore, the data is managed using Nvivo plus 12. Through word similarity analysis, a conclusion is drawn. Nvivo

analyzes qualitative data to produce more professional results (Hilal & Alabri, 2013). The review results will show the interrelated relationship between each other and support each other by creating a common view through analysis. Furthermore, the review results will produce a percentage that shows the role of each contribution with a maximum number of 100%. To strengthen this research, in addition to literature review through literature studies with reputable journal sources, data collection was also carried out by sampling techniques (Sugiyono, 2001:56). Then determine the sample whose number corresponds to the sample size that will be used as the actual data source by paying attention to the population's characteristics and distribution to obtain a representative sample (Margono, 2004).

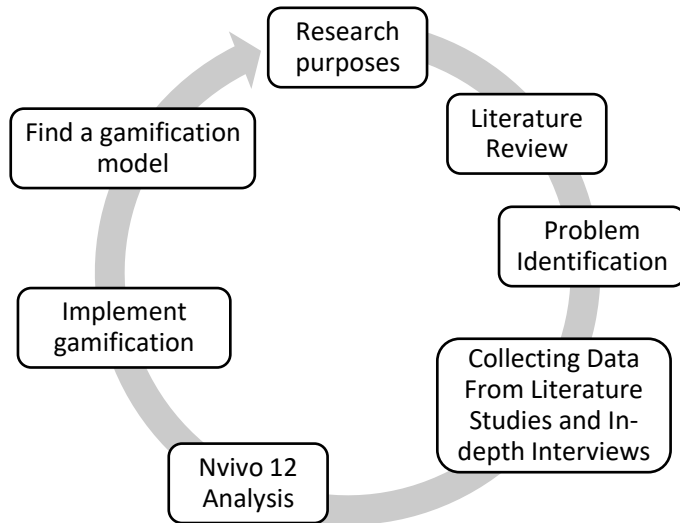


Figure 1: Research process
Source: secondary data processed

The sample of this research is the MSMEs business which students, namely the Presidium, manage.ID, a member of the Muhammadiyah Student Association, consists of 34 Regional Leaders at the Provincial level throughout Indonesia who are student representatives at the Branch Leaders, Branch Managers, and Regional Leaders in a hierarchical structure. The sample was chosen. After all, it was to prepare for and face the demographic bonus period because, at that time, it would be dominated by students (Badan Pusat Statistik, 2019). The young generation manages this business with the spread throughout Indonesia. Sampling is based on judgment or purposive sampling. The sample is selected in the presence of specific criteria used by researchers (Remenyi et al., 2000), namely Marketing Executives (ME) in management selection as many as 13 people represent each leader of each province.

RESULTS AND DISCUSSION

Result

This study will examine the application of the gamification model to the MSMEs business. A literature review, which is then implemented in the MSMEs business, suggests that applying the gamification model in this study implemented in the MSMEs business can explain the use of the game model in a non-game context. This study is the same as stated by Deterding (2011), which refers to changes in behavior.

Table 1: Literature Review

Authors	Findings
Deterding (2011)	This research refers to changes in behavior
Robson et al. (2016)	Analyzed the findings of companies applying the play model by creating more engaging experiences through a traditional approach by facilitating behavior change through customer and employee engagement.
Barata et al. (2017)	Recommends that gamification involves the user in adopting a variety of behaviors, consistent with typical commercial definitions
Sailer & Homner (2020)	The general process in the gamification model includes three types of elements such as emotions, mechanisms, and dynamics
Hamari et al. (2014)	The gamification model can be concluded in three dimensions, namely psychological abilities, motivation, and behavior
Dicheva & Dichev (2017)	Argues that gamification is not only a methodology that enables behavioral change but also concerning technology. The potential for the application of the gamification model is considered to develop engagement, motivation, friendly competition, collaboration, behavior change in different contexts, including employee performance and social loyalty.
Kevin Werbach (2012)	The trinity of gamification design elements includes awards (levels) or badges, points, and leader boards.
(Seaborn & Fels, 2015)	Gamification models can be implemented in empirical and theoretical domains with applications in education, marketing, health care, human resources, training, environmental protection, and organizational well-being.
Denny (2013) & Domínguez et al., (2013)	Gamification models can increase activity and performance

Source: Literature review analysis, 2021

The use of gamification models in MSMEs businesses such as rewards (levels) or badges, points, and leaderboards in studies, can explain engagement, motivation, friendly competition, collaboration, behavioral and psychological changes in the context that business models include employee performance and social loyalty.

Table 2. Review the conclusion of interviews and observations as a whole.

Gamification model steps	Interview questions to informants	Answers to interviews with informants
<ul style="list-style-type: none"> • Step 1: Identify the barriers (intrinsic or extrinsic) that may inhibit the necessary change. • Step 2: Generate interest in work by providing a relevant model. • Step 3: Create an effective and enjoyable work experience using scenarios, simulations, and challenges. • Step 4: Provide feedback to improve and improve performance, which can help workers to think creatively and innovatively. • Step 5: Use gifts and acknowledgments to preserve employee moments and motivation, and ensure they graduate with achievement. • Step 6: Apply repetition to achieve successful behavior change. 	<p>Will applying the points play a role in motivating your work?</p> <p>If a challenge is applied to a job, will this make it difficult for you?</p> <p>Will appreciation in achieving your goals be able to make you more enthusiastic about creating?</p> <p>What role can the leader board play as your stimulus to work?</p>	<p>Employees feel that their work is more valued by encouraging employees to achieve and work harder and increase employee appraisals' objectivity.</p> <p>Provides recognition for employees by showing who is performing well, making rapid progress, who is slow, and who needs advice as an approach.</p> <p>Helping employees appreciate the field and results of achievement and can relieve stress and fatigue.</p> <p>Leader boards can provide employee-directed feedback because employees can see their performance based on predetermined benchmarks and compare it with other employees as a material for improvement.</p>

Source: Processed interviews and observations were processed, 2021

The gamification model used in business in this study is very relevant and straightforward. Such as experience points and levels (used for ranking, feedback, and progress goals), challenges or quests (tasks with clear objectives and increasing difficulty level), badges or rewards (which are used for ranking, feedback, and progress goals). distributed to increase motivation) and leaderboards (which stimulate competitiveness and increase creativity and continuous innovation). This study also explains that the gamification model will focus on psychological growth, including the need to feel competent and feel connected to others in situations needed to increase activity and performance in business processes.

The reasons for supporting entrepreneurial behavior changes using gamification model are implemented through psychological and motivational effects, which is a theoretical approach, adding elements such as fun games to learning activities will create strategies in dealing with the conditions that occur (Verzat et al., 2009; Codish & Ravid, 2015). Individuals can make their own decisions and learn inductively (Prince & Felder, 2006), strengthening enthusiasm and competitiveness through creativity and innovation (Prince, 2004; Caponetto et al., 2014). It is then expected to contribute to behavior change in the future (Holman et al., 2013). In line with the study of entrepreneurship, this is a framework for analysis to show that this effect is present and is expected to answer the challenges of the middle-income trap with a gamification strategy model that results in changes in entrepreneurial behavior in psychological effects and entrepreneurial motivation.

Planning a Gamification model is to maximize the impact of the gamification model. This measurement can be used by looking at the big picture as needed through the following steps. For this reason, several questions are asked as reinforcement in the gamification model in this study and produce answers that employees will feel that their work is more valued by encouraging employees to excel and work harder and increase the objectivity of employee appraisals. In addition, it also provides recognition for employees by showing who is performing well, who is making rapid progress, who is slow, and who needs advice as an approach. Gamification models can help employees appreciate fields and results and can relieve stress and fatigue. The leaderboard is implemented to provide employee-directed feedback. Employees can see their performance based on predetermined benchmarks and compare it with other employees as a material for improvement. The Gamification model is one good strategy to provide an exciting and not boring experience. It can provide an action-oriented work experience, align with company goals, and help employees with a sense of accomplishment and satisfaction when designed very well.

Table 2 in the interviews conducted in terms of business processes explains that the application of the gamification model is how companies compile a model to include game attributes such as fun, play, competition, and addiction into work affairs to create a more exciting and satisfying work experience. In using gamification, entrepreneurs can raise the competitiveness of each employee as they become more focused and involved in the mission (tasks) assigned to them in the workplace by increasing creativity and innovation. The idea is to create a sense of accomplishment among employees after opening new levels and passing challenges.

It creates higher opportunities for work motivation and increases employee engagement and willingness to work harder to complete their tasks. Gamification can also be applied to increase employee engagement by creating a positive and attractive work culture. It can be done by fostering a work environment in which achievements are rewarded and rewarded accordingly. The prizes given must also be adjusted to the results, and in the end, the company gets good quality employees as assets and is ready to face any challenges.

Figure 2, based on a literature study, describes how gamification becomes a model in its role to become a bridge for human capital strategies as an increase in capabilities that can be applied in every business, especially the MSMEs sector, in a simple manner. The mechanism is regulated by implementing games while doing business to make a more pleasant impression on

increasing motivation, behavior change, and the psychological effect of entrepreneurship working on each indicator.

This model will affect the workforce and socialization skills needed to deal with human psychological tendencies that are prone to feeling bored. This review is also carried out to prepare human capital in the MSMEs business facing changes in the economic order to meet the demographic bonus and the middle-income trap.

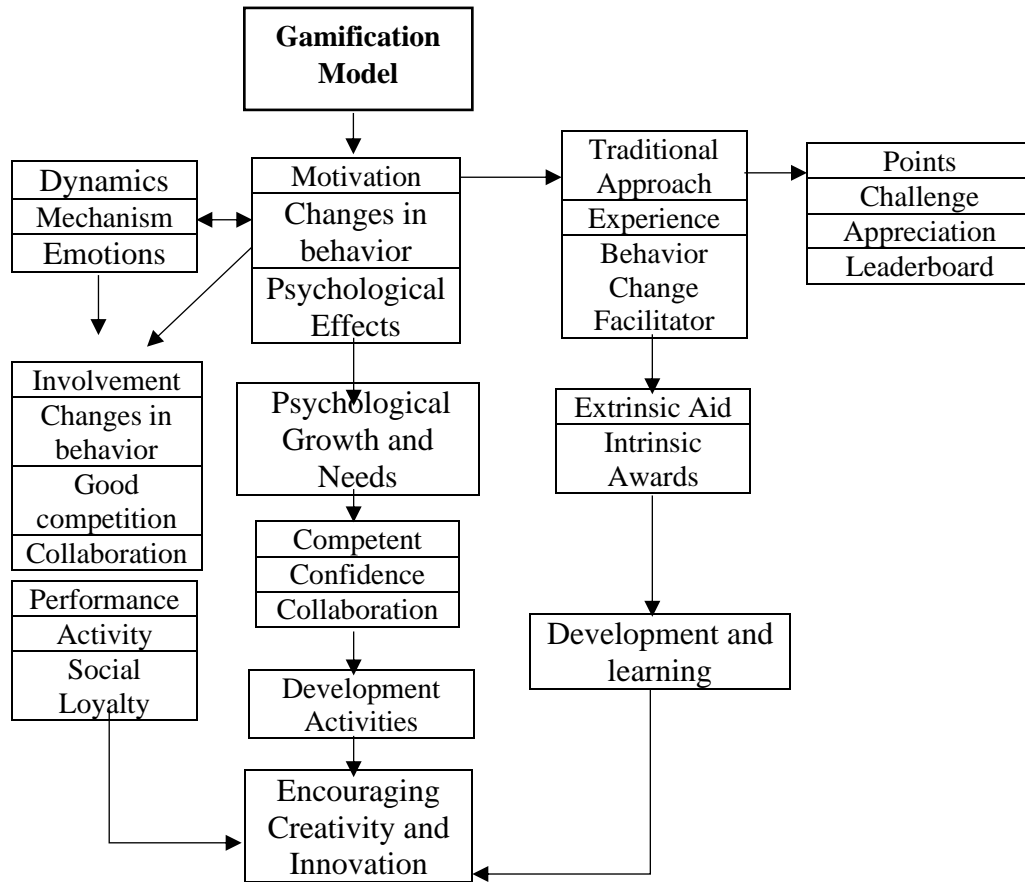


Figure 2. Gamification Model

Source: Literature review data processed, 2021

As the picture above shows, it will affect the mechanism for applying gamification. In Figure 2, the study stages are arranged by making objectives as a basis for preparing the study of the next stage. In the next stage, the preparation of a theoretical framework is carried out to find out theoretical studies related to gamification after going through a literature review. In addition, empirical studies were also carried out by collecting data from observations and interviews and then included them to see to what extent studies related to gamification have been carried out. Then, the required data is collected. Next, it proposed dimensions by compiling data to find an

entrepreneurial strategy model with the hope of increasing motivational behavior and psychological effects to become a business strategy for MSMEs in dealing with human capital problems as a strategy to deal with the middle-income trap.

Table 3 explains that gamification to several large companies that can adapt and face market competition through various strategies. The goal to be achieved is an effort to maintain business stability. Consumers will increase loyalty, satisfaction, customer involvement. From the employee side, gamification can strengthen a sense of belonging, increase enthusiasm for work, and increase managerialism for creativity and innovation.

From tables 1 – 3 and Figure 2, a comprehensive test is carried out on the gamification model in business based on processed data by looking at the analysis of variables, namely changes in behavior, motivation, and the psychological influence of entrepreneurship. Then, in the word similarity analysis (Figure 3), the Nvivo 12 application is carried out to obtain relevant analytical relationships based on the related variables in the cluster analysis to produce a diagram that classifies the linkages between the variables obtained. Each variable supports the role interaction at the level of study, where gamification affects psychological effects (86%), motivation (83%), and behavior change (71%) by 98%, which will encourage creative and innovative attitudes and traits. This figure shows that applying the gamification model is a relationship by connecting and supporting users' activities—finally, the solution impacts behavior change, motivation, and psychological effects of entrepreneurship.

Table 3: Overview of Company Strategy

Company	Gamification Strategy	Goals
Go-Jek	Go-Points	Increased customer loyalty
Grab	Grab Reward	Increased customer satisfaction
Waze	Leveling	Increased customer engagement (user engagement)
Nike	Ekin	Get to know the history of Nike (Sense of Belonging)
Amazon Web Service	Cloud (pay-as-you-go)	Helping start-ups with the courage to generate new ideas
KFC	The employee of the month	Raising the spirit
YouTube	Fitur Subscribe	Increase creativity
Instagram	Feature <i>Story</i>	Increase Innovation
Traveloka	PayLater	Offers online loan services
Shopee	Shopee Pay	Ease of payment transactions

Source: Online media data processed, 2021

Furthermore, according to Liñán & Fayolle (2015), in the development of studies conducted in the last ten years, more than 50 studies have investigated entrepreneurial behavior. Still, there were not many references in the application of gamification and psychological effects. Gamification is defined as the use of game design elements in a non-game context. Nacke & Deterding (2017) stated that as a field of study, recently, gamification has increased significantly

without any signs of slowing growth. The rapid development of this topic of research is a new multidisciplinary field.

This study also shows and is in line with other research that shows that the gamification model improves entrepreneurial behavior by using employees and social skills needed in entrepreneurship. (Antonaci et al., 2015). Overall, the findings from this study support and show that gamification proves the correlation of behavior change, psychological effects, and motivational abilities. Furthermore, the gamification model can be applied in a simple, more exciting, and fun way (Deterding, 2011; Dicheva et al., 2015; Hamari, 2017; Hanus & Fox, 2018; Seaborn & Fels, 2015).

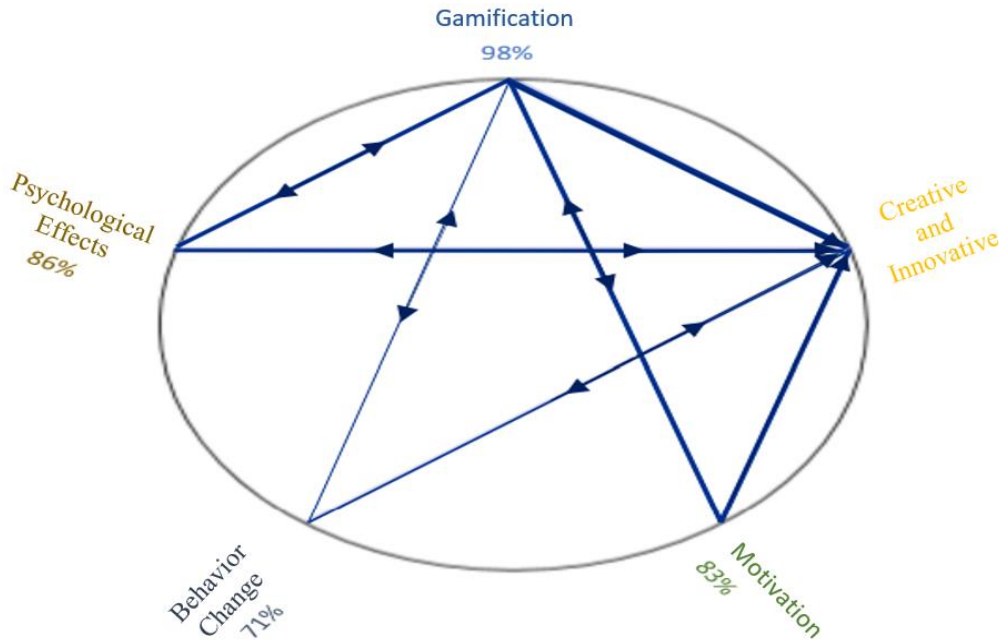


Figure 3. Relationship Analysis (word similarity)

Source: Data processed by the Nvivo 12, 2020

Therefore, gamification is a temporary keyword but a significant trend that can be considered in future business strategies when dealing with middle-income traps. In terms of internal and external influences, the gamification model can explore sources of income through business even though the model is different (Storbacka et al., 2016; Larivière et al., 2017). Organizations develop gamification model activities that are promoted to business through programs to address human resources in helping employees, consumers, and managers effectively (Kristensson et al., 2017).

Discussion

Gamification and Entrepreneurial Motivation

In this study, it was found that the gamification strategy played a role in entrepreneurial motivation in the MSMEs business with a percentage of 83%. It also supports the findings of NaSlavtchev et al. (2012) that motivation programs can help students (students and students) determine early on whether entrepreneurship is a viable career choice (NaSlavtchev et al., 2012) and can add value to all. Students as aspiring entrepreneurs (Kuckertz, 2013). The same thing about motivation has also been associated with entrepreneurial self-efficacy (Zellweger et al., 2011). In its provisions, the personality motivation program is believed to improve entrepreneurial skills as a means of answering problems from human resources (Zhao et al., 2005). Furthermore, other studies show that the millennial generation (born between 1982 and 2004), often nicknamed NetGen (Ganesh et al., 2015), tend to be more active and receptive than older generations for entrepreneurship as a career choice (Kuckertz, 2013).

Therefore, to run a business in the new normal era requires creative and innovative knowledge and skills as a more profound entrepreneurial step which in this research can be done through gamification strategies such as business planning, case studies, online simulations, and games. It is also based on research by (Kuratko & Morris, 2018). The purpose of gamification in this study is also in line with the findings of McGrath & Millan (2000) to generate motivation as the development of an entrepreneurial mindset, namely a set of attitudes, skills, and behaviors to find entrepreneurial opportunities, access resources, and create value amid uncertainty also reinforced by the results of research by Davis et al., (2016).

Gamification and Psychological Effects

Very few studies have been conducted on Gamification and Psychological Effects of entrepreneurship. The literature is relatively sparse, and so is the empirical evidence. In addition, several studies are still debating the effects of gamification (Sailer et al., 2017) and the consequences of skills development through psychological effects (Bae et al., 2014). However, there was an interrelated relationship between gamification strategies and psychological impact in this study. A percentage of 86% in terms of the MSMEs business. This finding is also supported by Rauch & W Hulsink's (2015) research about the psychological effects that provide participatory roles to participants as human resources involved in the business by showing the results of entrepreneurial programs mediated by gamification strategies then becoming entrepreneurial behavior.

The findings in this study also support Westhead & Solesvik (2016), which shows that psychological effects have high intensity in highlighting the role of intention. Both students and non-learners who apply gamification to knowledge and skills that produce creativity and innovation can also positively influence behavior control. In another study, the psychological effect will provide self-control in entrepreneurial programs, which is defined as a person's belief in the awareness of his abilities with gamification (AM Shaltoni, HK. Abdullah, 2015).

The same thing also explains that the positive role of gamification on psychological effects in increasing entrepreneurial awareness in general as a potential career choice can also provide self-competence (Zhao et al., 2005). In addition, the use of educational programs in learning

experiences mediated by gamification can increase creativity in entrepreneurship (Nahl & James, 2013). The findings from this study corroborate studies that show the positive impact of gamification on user experience and engagement, affordability motivation, and self-efficacy of entrepreneurship through education (S. Deterding, 2011; Hamari, 2017; Seaborn & Fels, 2015).

Gamification and change in Entrepreneurial Behavior.

The use of gamification to support the development of entrepreneurial behavior tries to involve users in influencing specific changes (Robson et al., 2016). Unfortunately, theoretical studies use games and simulations for entrepreneurial behavior more than empirical studies available with gamification effects. However, using a theoretical review and empirical research on gamification strategies for MSMEs businesses shows that the role of gamification strategies reaches 71% changes in entrepreneurial behavior.

This study attempts to address this gap by providing insight into using a framework through entrepreneurial behavior to demonstrate the impact of gamification. The application of gamification can form an entrepreneurial mindset that is beneficial for human resources in innovative teaching methods and content. It also applies to research conducted by Sidhu et al. (2015). On the other hand, analysis by Barata et al. (2017) suggests that gamification can be tried to involve users in adopting certain behaviors, which are in line with typical commercial definitions. This definition also suggests the findings of this study to hold a general process in which gamification includes three types of elements or principles such as dynamics, mechanisms and emotions (Hunicke et al., 2004).

In line with this study, gameplay and gamification programs have been used to foster changes in entrepreneurial behavior by presenting creative and innovative mindsets (Antonaci et al., 2015; Fellnhofner, 2019). Furthermore, the findings of this study are in line with research by Rughinis et al. (2016) and Ruiz-Alba et al. (2019). Therefore, further investigations can be carried out to encourage pedagogical methods. Furthermore, it will explain the linkages and provide a role in implementing the gamification program to develop entrepreneurial behavior (Phan et al., 2009; Verzat et al., 2009; Kobia & Sikalieh, 2010).

CONCLUSIONS

The application of gamification is closely related to entrepreneurial practice. This study shows that a simple gamification strategy can be applied to prepare human capital for the demographic bonus and middle-income trap in 2045 to welcome a golden Indonesia. Playing while doing business will be a system and activity renewal of MSMEs to maintain business stability. In increasing entrepreneurship, gamification is needed to deal with the psychological tendencies of humans who are prone to feeling bored to increase creativity and innovation. By influencing behavior change, motivation and psychological effects of entrepreneurship to be enjoyable to create more exciting activities, performance, and experiences. Therefore, the application of gamification has a close relationship with entrepreneurial practice. In this study, the application of the gamification model

also impacts changes in behavior, motivation, and psychological effects of entrepreneurship in the process of running a business.

This study shows that a simple gamification strategy can be applied to prepare human capital in facing the demographic bonus and middle-income trap that will occur in 2045 to welcome a golden Indonesia. Playing while doing business will renew the MSMEs system and activities as a business model to maintain business stability by increasing creativity and innovation. In increasing entrepreneurship, gamification is needed to deal with the psychological tendencies of humans who are prone to feeling bored to increase creativity and innovation. Influencing behavior change, motivation, and psychological effects of entrepreneurship becomes fun to create more exciting activities, performance, and experiences.

The study of gamification can be the right strategy for managers, employees, and consumers to increase business activities and performance that play a role in the stability of MSMEs. The results of studies using the gamification strategy can be an initial reference for stakeholders, both academics and business practitioners, to determine effective and efficient targets and programs. The concept of gamification can be adapted to various conditions of entrepreneurship management in Indonesia in the future. It can become a plan for future studies because it can be adjusted based on the management of each MSMEs business. Thus, the concept of gamification will still provide benefits in various situations and conditions.

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