
DESIGNING VIRTUAL SPORT BASED ON METAVERSE GAMES AS A GREEN BUSINESS PROSPECT TO OVERCOME CIGARETTE ADDICTION

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ABSTRACT

Cigarette addiction is a serious public health problem with negative impacts on individuals and the environment. An effort to address this issue, the design of virtual sports based on game platforms in the Metaverse has emerged as a promising solution. This study aims to explore this design as a sustainable green business prospect in combating cigarette addiction. The research was conducted using a qualitative research method. We interviewed a group of active smokers aged 17 to 25 years to understand their needs and preferences regarding alternatives to smoking. The results of the study showed that the majority of respondents had a strong desire to quit smoking and were actively seeking healthier alternatives. As a solution, we developed a design for virtual sports based on game platforms in the Metaverse. This media platform brings together active smokers to participate in virtual sports activities as a substitute for smoking. This design has the potential to be a sustainable green business prospect with a holistic approach to environmental management. It emphasizes the importance of providing attractive alternatives and fostering a supportive environment for individuals to overcome their addiction. Moreover, the design has the potential to be a successful green business venture that promotes both individual well-being and environmental sustainability.

Keywords: Virtual Sport, Metaverse, Green Business, Environment, Active Smoker

INTRODUCTION

Cigarettes are become a consumption product not only for adults but also for children. Indonesia is the country with the highest number of smokers in Asia. The Male Smoking Rate in Indonesia reaches 76% (Iqbal, 2021). Data from Basic Health Research (Riskesdas) shows an increase in the prevalence of smoking in the population aged 10 years from 28.8% in 2013 to 29.3% in 2018 (K. RI, 2020). Data from the World Health Organization (WHO) Three million people death every year due to tobacco consumption which causes cardiovascular diseases such as heart attacks and strokes (P. K. RI, 2018). These deaths include 890,000 deaths from passive smoking. The problem of smoking addiction is a serious challenge that threatens public health and the environment. Besides harming the health of individuals who smoke, this habit also has a negative impact on the environment through the waste it produces and air pollution. An effort to fight smoking addiction and maintain environmental sustainability, the design of game-based virtual sports in the Metaverse emerges as a promising green business prospect.

Virtual Reality use of graphics, sound and other three-dimensional objects to produce simulated images. This technology also supports its users to connect, communicate, and socialize without boundaries in the virtual world like in the real world. Based on the description above, Virtual Reality can be concluded as an environmental simulation in the form of virtual objects that appear real and users can interact with these objects. Now the development of Metaverse has been adapted to several platforms, one of which is the Roblox game media platform, where each user or player can interact, socialize, work together, and be creative through the avatar they use in the game. The technology carried by Metaverse can not only be implemented in the form of games, but also used for several events such as music concerts and other purposes. Metaverse technology has even been used in the virtual concert of singer from the United States Justin Bieber in 2021 (Endarto, 2022). This article aims to explore the design of game-based virtual sports in the Metaverse as a green business prospect that can combat cigarette addiction. By utilizing virtual reality

technology and real-time interaction, virtual games in Metaverse can provide an interesting and interactive gaming experience, while helping active smokers to distract themselves from smoking.

Green Business is a corporate voluntary activity that aims to achieve better environmental performance and simultaneously has an impact on more competitive companies, green business as a concept that is not only profit-oriented but as steps to provide environmental protection (Utomo et al., 2022). Through a green business approach, designing virtual sports in Metaverse also provides environmentally friendly solutions. In this case, attention is paid to aspects of efficient energy use, reduction of carbon emissions, and sustainable management of e-waste. In addition, virtual sports can also make a positive contribution in reducing air pollution because they do not produce cigarette smoke. This is a potential green business from designing game-based virtual sports in the Metaverse. The formulation of the research problem is: how to approach green business in designing game-based virtual sports in Metaverse. It is hoped that this research can provide valuable insights for stakeholders in the fields of green business, health and the environment. By exploiting the potential of game-based virtual sports in the Metaverse, it is hoped that effective solutions will be created in fighting smoking addiction, maintaining environmental sustainability, and creating a healthier future for society.

LITERATURE REVIEW

Virtual Reality

Virtual Reality is a computer-based technology that displays three-dimensional images that look real with the help of certain equipment, which makes the user feel as if he is directly physically involved in the environment. Through virtual reality users can interact easily. With the development of mobile technology, virtual reality can be accessed more easily, interactively and interestingly (Utama, 2020). Through virtual reality technology various game-based virtual sports can be developed about the dangers of smoking so that they can help reduce smoking addiction. The use of virtual sports can distract active smokers from smoking and provide an interesting experience, thereby helping them reduce their smoking habit. In the context of designing game-based virtual sports in the Metaverse, the use of virtual reality technology can increase the effectiveness of this design as a solution to overcome smoking addiction.

Metaverse

Metaverse is the latest form of technological evolution in the form of a digital environment that is made to resemble the real world so that it can blur the boundaries between the virtual world and the real world. Metaverse combines virtual reality, augmented reality, and brain computer interfaces that can change the way business is done so that it needs to be a concern for business people (Arifiani & Furinto, 2022). Metaverse can create digital realities that are tailored to business goals, including creating virtual sports for green businesses overcoming cigarette addiction.

Green Business

Green business emphasizes businesses that pay attention to sustainable environmental aspects, such as efficient energy use, reduced carbon emissions, and environmentally friendly waste management. The focus of green business is to generate profit by protecting the environment and sustainability (Permana et al., 2023). In the virtual reality game industry, helping active smokers reduce their smoking habit and create a healthier environment is one of the implementations of green business because it reduces the dangers of smoking, stops air pollution from smoking, and overcomes smoking addiction. Green business as one of the concepts of green economics is an effort to achieve environmental economic progress as a pillar of the implementation of sustainable development for the transition process towards a low-carbon and green economy (Kristianto, 2020). In the paradigm of sustainable development, there are three pillars,

namely social, economic and environmental must play a role together. If there is a misalignment in one of the pillars or more, it will cause the failure of sustainable development (Suciati & Aviantara, 2019). The virtual sport concept based on the metaverse game is the implementation of green business through green technology that ensures technological advances are balanced with environmental preservation (Nainggolan et al., 2023).

METHODS

This study uses a qualitative research approach to explore the design of game-based virtual sports in the Metaverse as a green business prospect in combating cigarette addiction. The qualitative approach allowed the researcher to understand the experiences, perceptions and views of the stakeholders regarding this design. Qualitative research method is a type of method used to describe, find, and understand the meaning given by many individuals or groups of people to social or humanitarian problems (Creswell, 2010). By using qualitative methods, an in-depth understanding of how interactive media can influence the behavior and mindset of active smokers is obtained. Research participants will be selected using a purposive sampling technique by ensuring which respondent criteria can be selected as a sample (Lenaini & Artika, 2021) The sample selection is carried out using a purposive sampling technique, namely choosing participants who have knowledge and experience in designing virtual sports, addiction smoking and environmental issues. Participants in this study include game design experts, active smokers who are interested in virtual sports as an alternative, and stakeholders in the green business industry.

The research phase begins with in-depth interviews with the help of interview guidelines that have been made before. An interview is a meeting between two people where information and ideas are exchanged through questions and answers to develop meaning about a particular topic (Sugiyono, 2022). This interview allows researchers to explore their experiences, views, and hopes regarding designing virtual sports in the Metaverse as a green business prospect. The interview questions included their motivation for being involved in this design, their views on environmental impact, the challenges they faced, and their hopes regarding a sustainable business. Interview data were recorded, transcribed, and analyzed as a basis for designing programs according to the needs of the respondents (Fadli, 2021).

RESULTS

This study aims to explore the use of virtual sport media as a substitute for smoking habits for active smokers. After conducting the interviews, it was found that many respondents had a high desire to quit smoking, with 63.4% of them expressing this desire, and 43.8% actively trying to quit smoking. This data was obtained through interviews with 30 active smokers around the study area. After collecting and analyzing the interview data, the researcher conducted a clustering analysis to identify the target market. This process involves grouping respondents based on demographics, smoking behavior, and motivation to quit smoking. By understanding the characteristics and needs of the target market, it is possible to adapt the design of virtual sports media to suit their particular concerns and provide a suitable alternative to smoking.

The findings of this study demonstrate the potential of virtual sport media in assisting active smokers in their journey to quit smoking. By creating engaging and immersive experiences, this media platform aims to distract people from smoking and encourage healthier habits. Additionally, the establishment of a supportive social network within a virtual sports community provides valuable peer support and motivation for individuals trying to overcome smoking addiction.

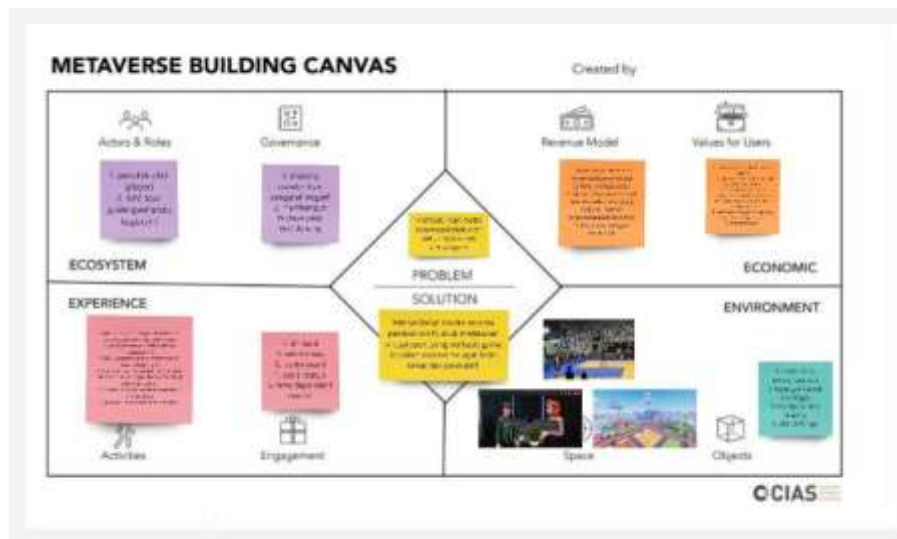


Figure 2. Metaverse Building Canvas
Source: Researcher, 2023



Figure 3. Fitur Assesment
Source: Researcher, 2023



Figure 4. Collect coins
Source: Researcher, 2023



Figure 5. Zombie World
Source: Researcher, 2023



Figure 6. Community Service Feature
Source: Researcher, 2023

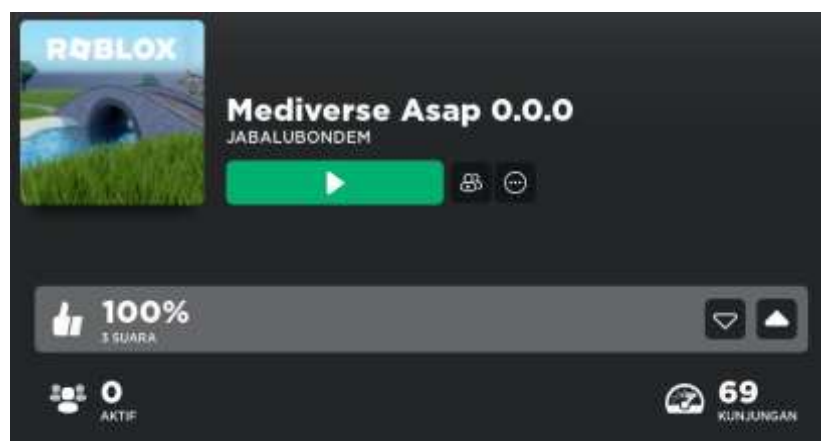


Figure 7. Smoke Mediverse Looks Outside
Source: Researcher, 2023

DISCUSSION

In the context of health, the results of this study indicate that designing game-based virtual sports in the Metaverse can be an effective means of helping individuals reduce smoking addiction. By providing an engaging experience and distracting from smoking, these media can be an effective tool in smoking cessation programmes. An effort to achieve a healthier life, the design of game-based virtual sports in the Metaverse can provide an attractive alternative and support individuals in fighting smoking addiction. From the results of the interviews, most of the respondents had a strong desire to quit smoking, with a percentage reaching 63.4%. This shows that there is an increasing awareness of the importance of living a healthy life and being free from smoking addiction. In this regard, the design of game-based virtual sports in the Metaverse offers an interesting experience and distracts from smoking, thereby helping individuals reduce their smoking habit.

In addition to individual health benefits, this design also has potential as a green business prospect. In relation to the environment, the use of virtual sports in the Metaverse reduces the negative impacts caused by smoking, such as carbon emissions and environmental pollution. Green business approaches, such as efficient use of energy and environmentally friendly waste management, can be integrated into this design to create a sustainable environment. In addition, designing virtual games in Metaverse also facilitates social interaction and support between users. In this game, users can meet other active smokers who have the same goal, namely fighting cigarette addiction. This social support is important in motivating individuals to quit smoking and creating a supportive social network. In this case, designing virtual games in Metaverse not only provides individual solutions, but also creates a mutually supportive community.

The implication of this research is that the design of game-based virtual sports in the Metaverse has great potential as a holistic solution in combating cigarette addiction. Apart from providing an interesting user experience, this design also has a positive impact on health and the environment. As a green business prospect, the development and implementation of this design can make a positive contribution to environmental sustainability and create jobs in the sustainable gaming industry.

CONCLUSION

In conclusion, this study provides important insights into the design of game-based virtual sports in the Metaverse as a green business prospect for combating cigarette addiction. Research findings show that these designs have great potential to improve health and the environment, as well as provide an engaging user experience. This research can be the basis for further development in creating innovative solutions as effort to fight smoking addiction and create a sustainable business and provide an interesting experience for users. This research can be the basis for further development in creating innovative solutions in efforts to overcome smoking addiction and create a sustainable business.

LIMITATION

This research has several limitations that need to be considered: (1) Sample Size. This study used a limited sample, so the results may not be directly applicable to the general population of active smokers. So it needs more extensive testing in active smokers; (2) Other Influence Factors: This study limits other influencing factors that might influence the results, such as genetic factors, social environment, or the presence of other smoking cessation programs that the respondent participates in. Future research can consider these factors to obtain a more comprehensive understanding; (3) Long-Term Evaluation: This research has a limited time scope, so it cannot provide information about the long-term effectiveness of designing virtual sports in fighting cigarette addiction. Long-term evaluation

of the effectiveness of this design in helping individuals quit smoking can be the next research.

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