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PARALLEL SESSION 2: SESSION SCHEDULE

Room : ICEBSH 3
Topic : Design
Moderator : Anny Valentina, S.Sn., M.Ds.

Schedule	ID	Paper Title	Author(s)	Institution(s)
14.40 – 14.47	054	The Concept of Future Luxury on The Interior Display Area at BMW Astra Serpong Showroom	Imelda Angelaine, Adi Ismanto, Kris Wardhana	Universitas Tarumanagara
14.47 – 14.54	055	Implementation Of The 'Oriental Beach Experience' Concept in Swissotel Jakarta Pik Avenue Interior Design	Willy Bahdian Putra, Adi Ismanto, Kris Wardhana	Universitas Tarumanagara
14.54 – 15.01	056	The Role of Technology Application in The Interior Design at Museum Zoologi Bogor	Pricillia, Adi Ismanto, Kris Wardhana	Universitas Tarumanagara
15.01 – 15.08	057	The Application of Betawi Batik Design Elements in The Interior of The Lobby Hotel Mercure Tanah Abang	Angeline, Adi Ismanto, Kris Wardhana	Universitas Tarumanagara
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15.15 – 15.22	059	Application Of Balinese Contemporary Concept in The Interior of The Westin Resort & Spa Hotel in Ubud	Shanabel Claudia, Fivanda, Muhammad Taufiq	Universitas Tarumanagara
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15.36 – 15.43	071	Communication Strategy Concept for Health Campaign by using On-Ground Activity and an Augmented Reality Experience	Luvia Lius, Anny Valentina, Ruby Chrisandy	Universitas Tarumanagara
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**schedule in GMT +7

PARALLEL SESSION 2: SESSION SCHEDULE

Room   : ICEBSH 4
Topic   : Design
Moderator   : Ruby Chrissandy, S.Sn., M.Ds.

Schedule	ID	Paper Title	Author(s)	Institution(s)
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14.47 – 14.54	106	Designing the Historical Story of Sabeni the Legendary Betawi Swordsman through WebComic Media	Kenny Irvandy, Kurnia Setiawan, Sinta Paramita	Universitas Tarumanagara
14.54 – 15.01	107	A Visual Identity Redesign Of Bird Park With Natural And Modern Concept	William, Kurnia Setiawan, Sinta Paramita	Universitas Tarumanagara
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GEN Z BEHAVIOR ON METAVERSE MEDIA AND GAMES

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ABSTRAK
Pandemi COVID-19 di Indonesia telah membawa perubahan besar dalam kehidupan masyarakat. Sebagai cara untuk mengatasi permasalahan tersebut, muncul berbagai ide baru. Salah satu media yang menjanjikan adalah metaverse. Penelitian kualitatif dilakukan untuk memahami perilaku audiens target. Pengamatan, kuesioner, wawancara, dan tinjauan literatur digunakan sebagai metode pengumpulan data. Hasil penelitian menunjukkan minat audiens terhadap acara virtual atau metaverse dengan preferensi visual yang berbeda-beda. Studi ini bertujuan untuk memahami perilaku Generasi Z terhadap festival, metaverse, dan video game dalam rangka mengembangkan acara metaverse yang sesuai dengan keinginan dan minat pengguna.

Kata Kunci: generasi z, perilaku, media metaverse, game

ABSTRACT
The COVID-19 pandemic in Indonesia has brought about several changes. As a result of coping with these numerous issues, new ideas have arisen. The metaverse is one of the medias that has a lot of potential. The data was gathered using a qualitative methodology. The qualitative approach is utilized to better comprehend the target audience's behavior. Observation, questionnaires, interviews, and a review of the literature are all used to collect data. In conclusion, target audiences are interested in virtual events or the metaverse. At the same time, it can be concluded that they have distinct visual preferences. The survey's findings have addressed the study's goal, which was to learn more about Gen-Z and their behavior on festivals, the metaverse, and video games; in order to develop a metaverse event that appeals to the user's wants and interests.

Keywords: gen z, behavior, metaverse media, games

1. INTRODUCTION

Since 2020, the COVID-19 pandemic has entered and struck Indonesia. The coronavirus epidemic in mid-March resulted in widespread sheltering-in-place and the closing of numerous non-essential companies. Bick, *et al.* (2020) found that population density contributed significantly to the propagation of the virus; 94% of the variation was caused by this factor alone. Additionally, the effect of wind speed also contributed to the spread of COVID-19. At the time, the absence of a vaccine for COVID-19 made the virus particularly perilous, with far-reaching health implications for individuals worldwide. Consequently, COVID-19 rapidly evolved into a global pandemic (Coşkun, 2021)

In order to prevent the spread of COVID-19, cooperation among the population is essential. The World Health Organization (2022) says that it needs to communicate the risks of this virus and work with different communities to develop effective programs.

Numerous studies have shown that taking precautions at the individual level is effective in slowing down the spread of infection. Washing hands, wearing a mask, using hand sanitizer, maintaining social distance, and staying at home are just a few fundamental precautions that the WHO has encouraged the general public to take.

In light of these circumstances, the World Health Organization has advised governments and businesses to embrace telework as an innovative solution to curb the transmission of the virus while sustaining business operations. Telework encompasses a flexible working style that transcends geographical boundaries, temporal limitations, and communication technologies. Considering recent events, the idea of working from home has become more appealing than it ever was before (Irawanto, 2021).

As a result of teleworking, technology and digital use will increase significantly. Indonesia's internet user population was estimated to be around 175 million prior to the outbreak of the COVID-19 pandemic. Meanwhile, in 2022, there are about 210 million internet users in Indonesia; according to the most recent APJII (2022). The internet in Indonesia is dominated by people aged 13 to 28-years-old during the COVID-19 pandemic; which numbers at 175 million users. The internet is dominated by the 13 to 28-year-old age group in Indonesia; with 99.16% of this age group connected to the internet, and the 19 to 34-year-old age group to be reaching approximately 210 million users. Because of this fact, the internet in Indonesia is dominated by the 13–28-year-old age group. The survey by APJII, also revealed that 98.02% of Indonesians use the internet the mostly for their social media needs.

The Covid-19 pandemic has accelerated the growth of the internet and caused many everyday activities to move online. For example, schools have shifted to online teaching and caused more tech companies to provide enhanced virtual learning systems and simulation tools for improved educational experiences. Also, Liguori (2020) found that the epidemic has significantly increased the number of purchases made on online platforms in the grocery industry. Online grocery shopping's growth in appeal has sparked research curiosity, and marketing science has recognized the need to determine how the pandemic may influence customer behavior (Tyrväinen, 2022).

Apart from that, this also affects entertainment as well as life's essential activities. Concerts, physical events, and travel are all steadily moving online. The forward-thinking leaders in the events sector are experimenting with various approaches, such as leveraging virtual technology to link people and encourage participation through the organization of podcasts, live performances by musicians, online chats, and webinars (Madrav, 2020).

However, when considering the opportunities that come along with the shift from offline to online, the COVID-19 epidemic may be seen as an evolutionary period in the art world; altering the expressive ecosystem in terms of art production and education as well as the presentation of creative works and its commercial side. There will undoubtedly be a new channel for arts-related activities in the Metaverse. In order to make up for the social isolation necessary during the current pandemic, the Metaverse intends to build a realistic environment where people are represented by customized, individual avatars and offer opportunities for people to socialize and conduct business (Binson, 2021).

Therefore, this research was made to obtain data about Gen-Z as the most internet users and their behavior with events / festivals, metaverse media, and games. The creation of the metaverse can be made more relatable and enjoyable by using the appropriate visual. By designing the metaverse media in accord to the preferences and behaviors of the target audience, the metaverse can become more appealing to users and compete with other forms of media.

Metaverse Development

The neologism "metaverse" was initially introduced by Neal Stephenson in his seminal work "Snow Crash" in 1992; this refers to a virtual 3D world accessible through digital devices such as computers, smartphones, augmented reality, and virtual reality headsets. The key tenets of the metaverse are centered around providing immersive engagement and interaction, which enables users to fully embrace the digital realm. Represented as customizable digital bodies or avatars, users can engage with one another in the metaverse and experience a rich, interactive online environment. Notably, the concept of the Metaverse has its literary roots in William Gibson's "The Matrix"; a prescient precursor to his 1984 novel, "Neuromancer." In contemporary literature, Ernest Cline's "Ready Player One," published in 2011, illuminates "OASIS" as a modern exemplar of the metaverse concept.

The development of a second iteration of the metaverse is currently underway, and it aims to integrate social and immersive virtual reality platforms with open gaming worlds, massively multiplayer online role-playing games, and collaborative augmented reality spaces. This new incarnation of the Metaverse aims to facilitate seamless real-time interaction between individuals in both physical and virtual spaces; with users represented as 3D holograms or avatars. While this feature is currently available, there still remains some limitations within a single platform. The ultimate goal is to enable cross-platform, multi-technology interactions and meetings where individuals in virtual reality environments can interact with others in augmented reality environments.

Furthermore, the second iteration of the Metaverse aims to harness advanced virtual economy architecture by integrating non-fungible tokens (NFTs) and blockchain-based cryptocurrencies like Bitcoin. This approach is expected to enable seamless and secure transactions within the metaverse. At a macro level, it is anticipated that exponential technologies, such as wireless broadband networks, cloud computing, robotics, artificial intelligence, and 3D printing, will converge, advance, and enhance the Metaverse; marking the dawn of the fourth industrial revolution. In light of these developments, it is essential that education in the era of Industry 4.0 accounting for the crucial role of the metaverse (Mystakidis, 2022).

Gen Z's Behavior

Gen Z is a generation that is highly connected to the digital world. The term Generation Z was coined by David Stillman to refer to individuals born between 1995 and 2012, with parents typically belonging to Generation X. One of the main characteristics of Generation Z is digital; in which, the physical and digital worlds seem to be linear without any boundaries. Generation Z believes that the physical world responds to its digital counterpart and vice versa. The continuity between the physical and digital world is a very real thing today. Almost everything physical has a place and relationship in the digital world, and vice versa. This has also given rise to various developments in the digital world as people realize the increase in linearity of the two worlds, such as the metaverse (Stillman, 2018).

2.   RESEARCH METHOD

The data was gathered using a qualitative methodology. The qualitative approach is utilized to better comprehend the target audience's behavior. Observation, questionnaires, interviews, and a review of the literature are all used to collect data.

Direct observation of Gen Z participants who attended events, participated in games, and used virtual reality was done to get a rough idea about their behavior. These rough ideas help make further research possible by making the questions relatable.

The survey focused specifically on Gen Z individuals between the ages of 17 and 25, and was conducted by distributing questionnaires through a Google Form. Surveys were distributed via various platforms, including Instagram, WhatsApp, Line, and so on. There are different types of questions in the survey, such as predefined choices, statements on a point scale (with indicators ranging from 1 to 5), and self-added options.

The stakeholders, vendors, and performers at events were interviewed via Zoom. This aims to find out insights from various other parties in the development of the virtual event metaverse. Interviews were also conducted with respondents who had already completed the survey to get more in-depth information.

Data collection for the study included a review of both metaverse and Gen Z literature, which identifies the need for further research to better comprehend the metaverse's development.

3.   RESULTS AND DISCUSSIONS

The survey had 134 respondents; all of whom were Gen Z between the ages of 17 and 25. The following are the findings from the survey.

Gen-Z Behavior

The following are some findings that focus on Gen Z behavior, which includes socially based behavior, habit, purchase behavior, and preferences for events and games.
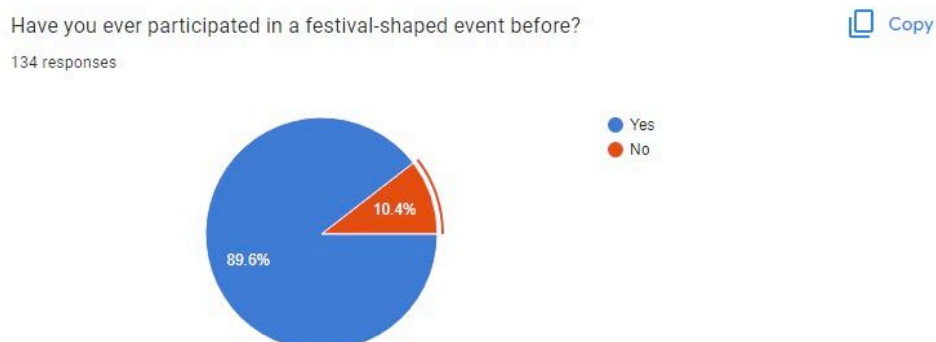

Figure 1. Ever participated in the event data

Figure 1 shows the data for "have attended an event" as a pie chart. There are 89.6% of Gen-Z respondents who have participated in events in the form of festivals before.
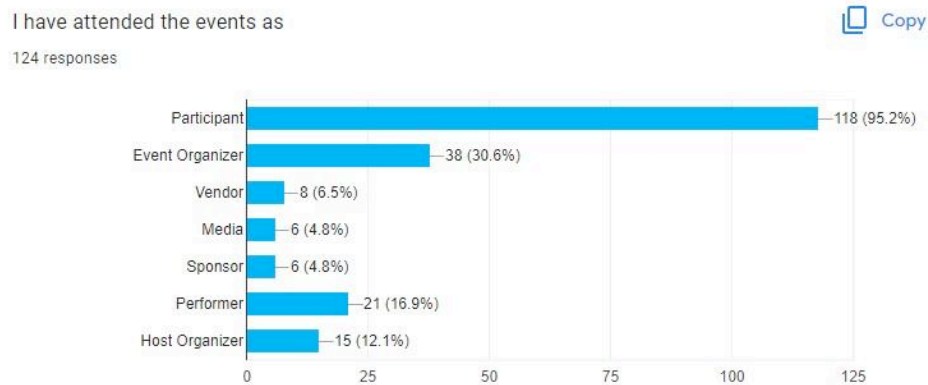
Figure 2. Role when participating in an event

Figure 2 displays the data for "role while participating in the event" as a bar chart. There were 95.2% of respondents who had attended events as visitors, followed by 30.6% of respondents as event organizers.
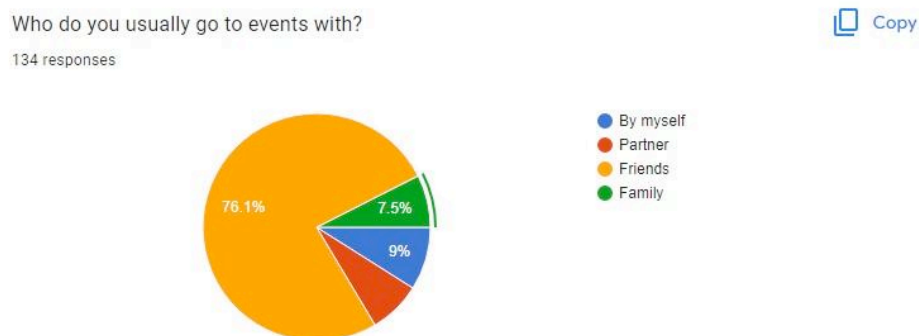

Figure 3. Companion when attending an event

Figure 3 presents the data for "companion to event" as a pie chart. As many as 76.1% of Gen-Z respondents went to events with their friends.
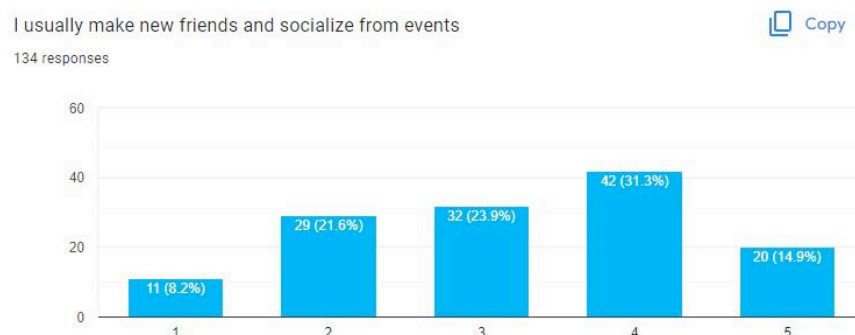

Figure 4. Data on Event Friend Socialization

Figure 4 illustrates the data on "socialization of event friends" as a bar chart. There are 31.3% of Gen-Z respondents who agree (indicator point 4) that they can make new friends and socialize at events.
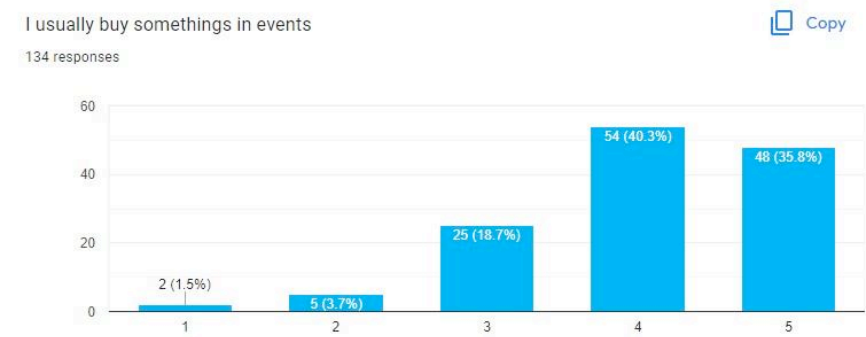
Figure 5. Event Buying Behavior Data

Figure 5 presents the data on "events buying behavior" as a bar chart. As many as 40.3% of Gen-Z respondents agree (indicator point 4) that it is common to buy something when attending events.
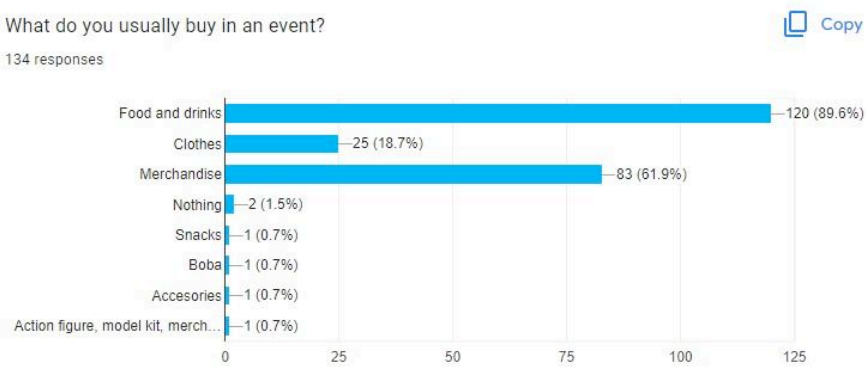
Figure 6. Things that are usually purchased Data

Figure 6 shows the "things purchased" data as a bar chart. Food and drinks are the things that most Gen-Z respondents buy when events (89.6%), followed by merchandise (61.9%).
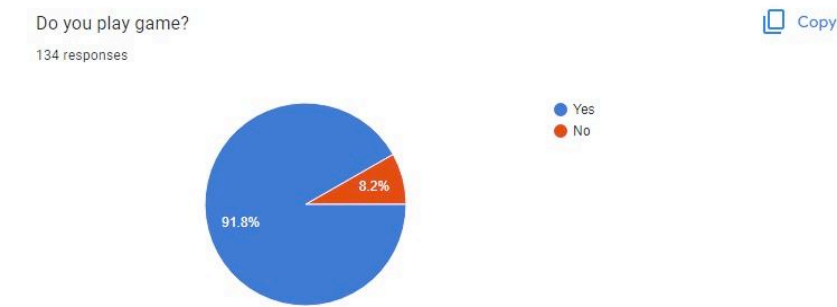
Figure 7. Game Play Data

Figure 7 illustrates the "gaming" data as a pie chart. Games are played by 91.8% of Gen Z respondents.
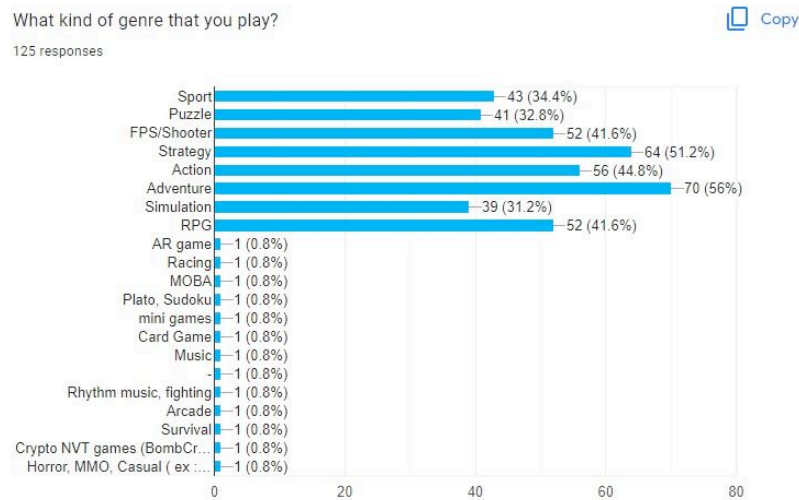
Figure 8. Game Genres Data

Figure 8 illustrates the data for "game genres" as a bar chart. Adventure is the game genre that is most played by Gen Z respondents (56%), followed by strategy and action.
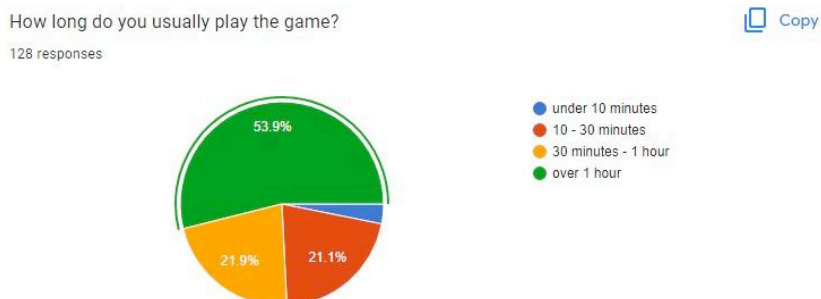

Figure 9. Game Play Duration Data

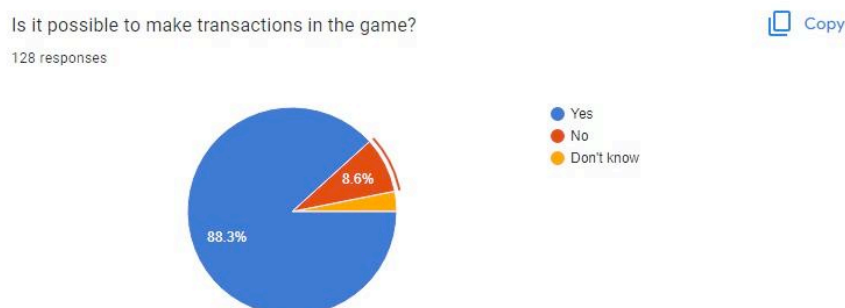Figure 9 depicts the "game play duration" data as a pie chart. There are 53.9% of Gen Z respondents who play games with a duration longer than 1 hour.

Figure 10. Transaction Data on Games

Figure 10 presents the "transactions in the game" data as a pie chart. There were 88.3% of Gen Z respondents who answered that games allow transactions.
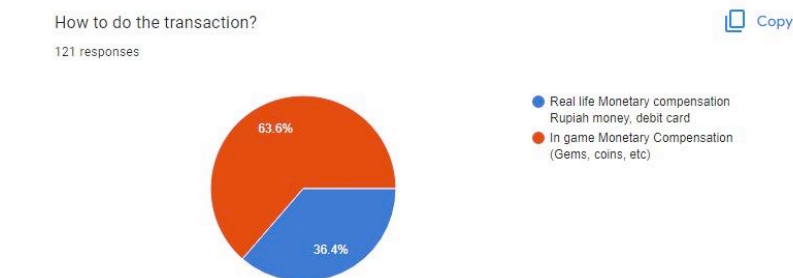

Figure 11. Game Transaction Method Data

Figure 11 shows the data of the "game transaction method" as a pie chart. There are 63.6% of Gen-Z respondents who say that games are played using in-game monetary compensation transactions.
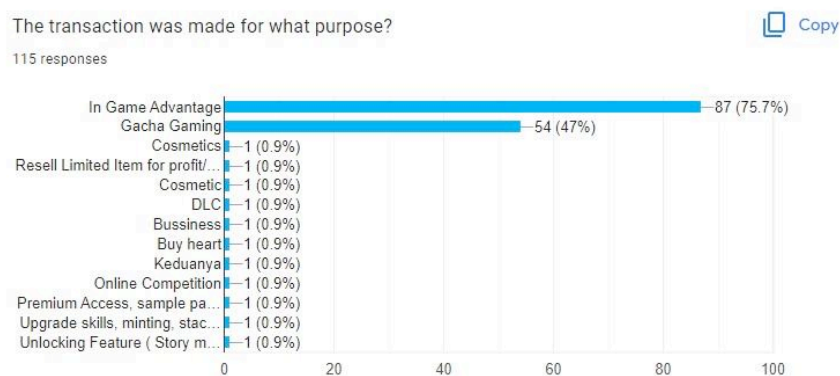

Figure 12. Game Transaction Purpose Data

Figure 12 presents the data for "game transaction destination data" as a bar chart. There are 75.7% of Gen-Z respondents who make transactions to buy goods or advantages in games.
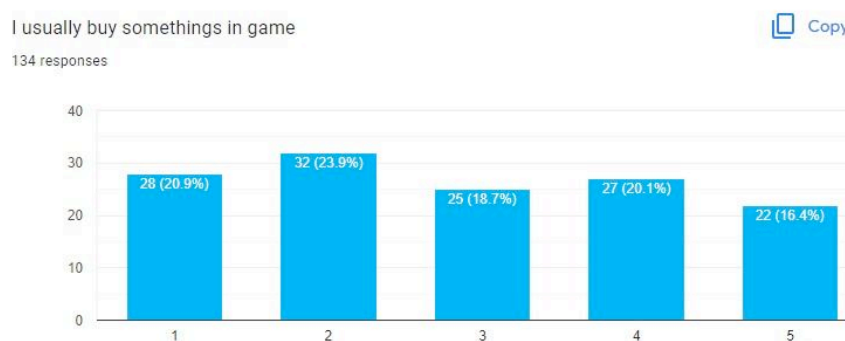

Figure 13. In-game Purchase Habit Data

Figure 13 shows the "in-game buying habits" data as a bar chart. 23.9% of Gen-Z respondents do not usually buy things in games.
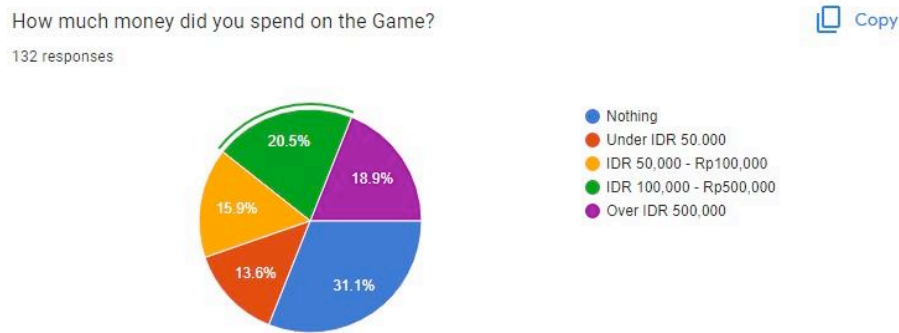
Figure 14. Money spent in the game Data

Figure 14 presents the "money spent on games" data as a pie chart. 31.1% of Gen-Z respondents do not spend money on games, while 20.5% spend between IDR 100,000 and IDR 500,000.
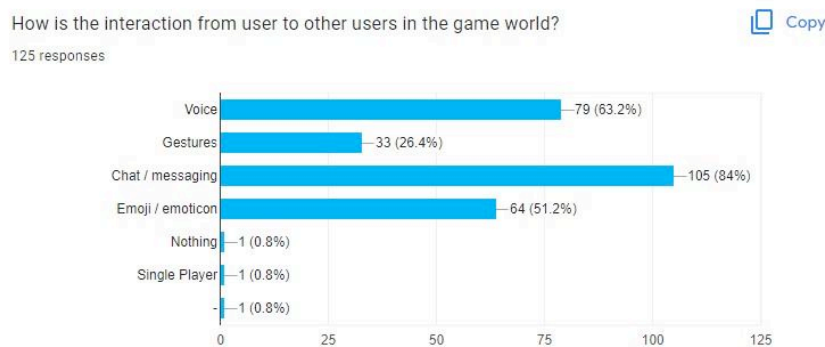

Figure 15. Interaction in Game Data

Figure 15 illustrates the data for "interaction in the game world" as a bar chart. There are 84% of Gen-Z respondents who answered that games allow the use of chat or messaging interactions, followed by voice and emoji.

Things That Can Be Implemented In Virtual Event / Metaverse

The following are some findings that focus on Gen Z's visual preferences that can be implemented in virtual events or the metaverse.
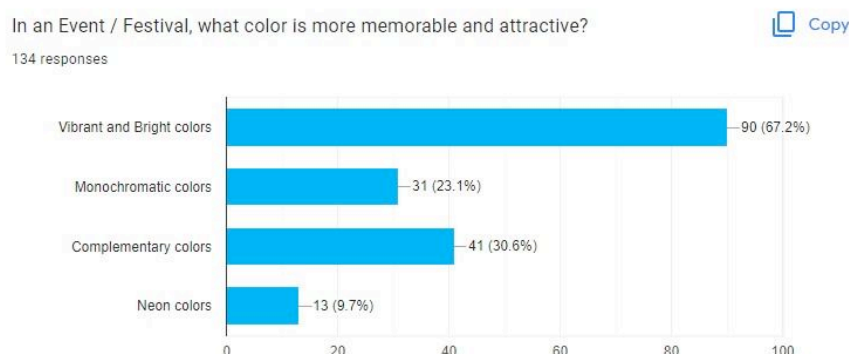
Figure 16. Attractive Colours in a Event

Figure 16 presents the "colorful event" data as a bar chart. 67.2% of Gen-Z view that vibrant and bright colors are the most memorable and eye-catching colors in an event.
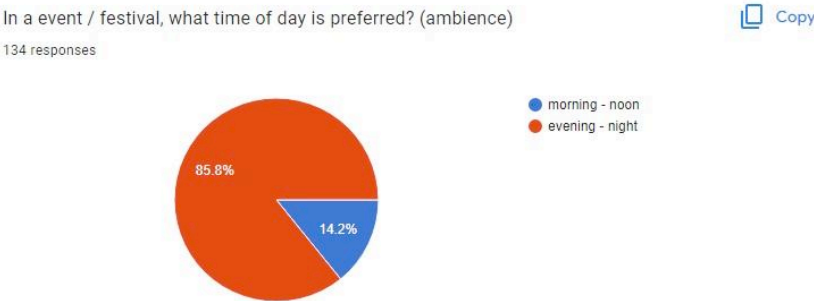

Figure 17. Ambience Event

Figure 17 presents the "ambience event" data as a pie chart. 85.8% of Gen-Z respondents like the ambiance in the evenings at an event.
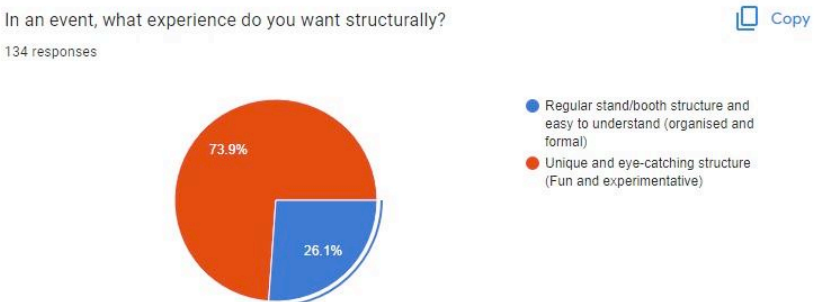

Figure 18. Data Experience's Structure Events

Figure 18 illustrates the "experience event" data as a pie chart. 73.9% of Gen-Z respondents said they liked experiences with fun and experimental structures.
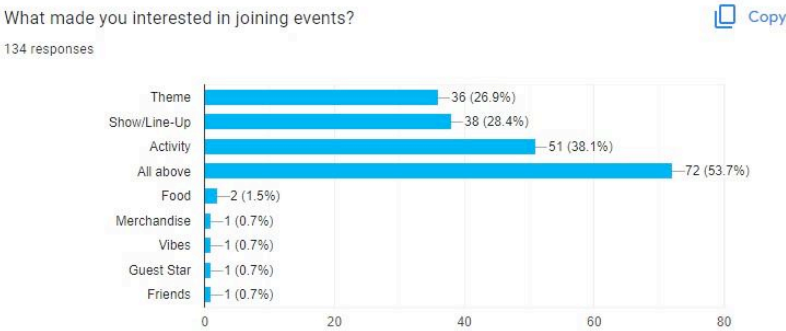

Figure 19. Attraction to the events

Figure 19 presents the data on "attraction to the events" as a bar chart. The theme, show, and activity were selected by the majority of respondents (53.7%).

Figure 20. Virtual World Festival Event Interest Data

Figure 20 shows the data "interest in virtual world festival events" as a bar chart. 37.1% of Gen-Z respondents are interested (indicator point 4) in taking part in festival events in the virtual world, and 30.6% are very interested (indicator point 5).

Result

In conclusion, 134 respondents participated filling in the survey. The results show that 89.6% of them have been to the event, and 53.7% were interested in the theme, performance, and activity. Additionally, 91.8% of respondents play games. Of those surveyed, 92 were interested in participating in events in the virtual world.

The data collected indicates overwhelmingly positive responses and is in line with expectations to the questions asked. The majority of Gen Z respondents expressed their interest in virtual events and playing games. This data will be very supportive and utilized to create a successful metaverse event that caters to the target audience.

It can be concluded that individuals in the gen-Z age group; 17-25 years old, have distinct visual preferences. The questionnaire results indicate a strong interest in the visual appearance of events and festivals which can aids to form the intended visual theme. The majority of Gen Z respondents prefer vibrant and bright colors for visual display. In addition to the atmosphere, respondents prefer the evening setting, and for the arrangements, they prefer a unique and eye-catching design, with a fun and experimental vibe.

Based on their behavior and insights from the data, these are the best visuals for metaverse media, especially for event entertainment.

Figure 21. Color Palette

Figure 21 displays the color palette that suits the target audience's preferences. For the color, dark blue was chosen as the color of the evening sky, which refers to the atmosphere of the time of day that is based on the target audience's preference. Next, the vibrant and bright color as well as the complementary color; orange-yellow was chosen as a complement to the blue color.

Finally, to make the colors more "vibrant," pink and purple, which are analogous to blue, were added.

Figure 22. Structure Design

Figure 22 displays the structure design that suits the target audience's preferences. Referring to the 'fun and experimental' structure, the place was designed structurally as a flying fantasy island in order to create a distinctive and eye-catching location. There are mystical components on each island that are based on the real world, but have distinctive appearances. The layout of the locations are also made more enjoyable and innovative by using techniques like flying, jumping across locations, and transferring between locations using "magic portals."

4. CONCLUSIONS AND SUGGESTIONS

In terms of behavior and implementation, both in the primary pursuits of everyday life and in amusement, the COVID-19 pandemic in Indonesia has brought up a number of changes. As a result of coping with these numerous issues, new ideas have arisen. The metaverse is one media that has a lot of potential.

The goal of the survey was to gain insights of the behavior of Gen-Z individuals regarding festivals, in the metaverse, and video games in order to develop a metaverse event that appeals to the user's preferences and interests. By customizing the metaverse media to suit the target audience's habits and preferences, the metaverse has the potential to compete with other forms of entertainment and deliver a unique and enjoyable experience. Moreover, the survey findings on behavior and visual preference indicate that the metaverse can maximize its potential as a medium for entertainment.

ACKNOWLEDGEMENT

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