

## **THE ROLE OF GENDER IN VIDEO GAME USAGE, PREFERENCE, AND BEHAVIOR IN SURABAYA**

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***Abstract**–This study aims to identify and analyze the differences of Behavior and describe the Usage and Preference toward Video Game between Male and Female gamers in Surabaya. The Video Game mentioned covers all electronic games, independent of their platform (computer, consoles, arcades, handheld, smartphone, etc.). The data used in this research gathered through direct offline physical Questionnaire which was adopted from Phan. et.al. (2012). Using Non-probability purposive sampling technique, sample of this research consisted of 200 respondents, composed from 100 Male and 100 Female respondents whose age is 17 years old or above, domiciled Surabaya, and routinely plays video game for at least two hours in a week. Further data analysis was analyzed by SPSS 23.0. Result of this study found that there is significant difference in behavior between male and female video gamers and describe each gender preferences toward genres and gaming device, also the usage of the video game.*

***Keywords:** Behavior, Preference, Usage, difference, gender, and Video Games*

### **INTRODUCTION**

The need for leisure had been grown recently as the increment of stress level caused by the working burdens. The highly competitive life has been unable to resolve with simply hard work, instead the time invested in leisure had given positive impact in productivity which is found by Ana-Maria Sava (Sava; 2016). From the work, the research findings concluded the existence of rather strong connection between spending time engaging in leisure activities and work productivity.

Moreover, Gale (2008) back this finding up with the article wrote on encyclopedia.com that leisure time has been a determining factor in the development of recreation and entertainment as an industry. Gale (2008) stated that the development of the economy in the term of productivity or output per person-hour, influenced and correlated with entertainment industry which was stated to be grown in line with the progress in technological development of which final result to cause the rapid growth of entertainment industry.

The value of the entertainment industry according to the statista.com is \$1.81trillion (www.statista.com) and projected to grow to \$2.1 trillion in the year of 2020 according to the report from PwC (PricewaterhouseCoopers one of the big four auditor) as cited in prnewswire.com (2016). Further, supported by the data from statista.com which cited the PwC report in 2014 which even detailed with the forecasting of the global entertainment value from the year 2014 to 2018 in trillion U.S. dollars. Gaming segment within the industry showed outstanding result which is ranked the first amongst all of its year-on-year revenue growth which is 6.4% in 2015, on the other hand, newzoo.com (2016) indicated the similar projection upon the future of video game industry with 6.6% growth and valued \$112.5Billion in 2018 and \$118.6Billion in 2019. As reflected by the global value, the domestic market side also indicated an interesting facts which is the highlight of the video game market growth spotlight been directed to the South East Asian market and one of the country the researcher living within is Indonesia.

The growth of Indonesian Gaming Market had been an amazing topic to be discussed, the research of *Asosiasi Penyelenggara Jasa Internet Indonesia* or Indonesia Internet Service Provider Association in 2014, the internet users within Indonesia counted 132.7 Million users and based on the survey of Newzoo (newzoo.com) about Southeast Asia games market in 2015, Indonesia had been known to be one of the fastest growing region for gaming market with gamers population of 42.8 Million with 56% are paying gamers. The revenue growth of Indonesian Gaming market had been projected with the CAGR (Compound Annual Growth Rate) of 45.7%, whereas gamers annual spending on game per person estimated at the amount of USD 13.30 with total revenue of the gaming population of Indonesia amounted USD 321 Million in 2015 (Newzoo.com, 2015). On the next year from the previous data, which is in the 2016, the total revenue of Indonesian Gaming Market is USD 598.1 Million with the CAGR of 40% which is considered as one of the large amount of growth in the world which is going to be valued at USD 1.6 Billion by the year of 2019 (newzoo.com).

According to Phan *et al.* (2012) The role of gender in games had been a concern for researchers due to the under-representation of female heroines (Cassell & Jenkins, 1998, as cited in Eden *et al.*, 2010 ) or the portrait of women stereotypes in games (Behm-Morawitz & Mastro, 2009; Smith, 2006, as cited in Eden *et al.*,2010). Phan *et al.* (2012) further describe the research background which the stereotype of women or female gamers connoted with pink theme; casual; social game genre; dislikes genres of strategy, fighting, sports, and racing/driving; and against the violent content within a game. Even, there are stereotypes from the world netizens which stated to meet or play with female gamers are close to a mythical beliefs or super rare occasion to be experienced.

Phan *et al.* (2012) further stated the recent condition of the video game industry which experienced a consistent shift in the demographics of the video game players and their consumers. Phan *et al.* (2012) specified the condition as the change of the domination of video game players which used to be male teenagers (Cassel & Jenkins, 1998; Wright *et al.*, 2001) (as cited in Phan *et al.*, 2012). Phan *et al.* (2012) also cited the report from Electronic Software Association (ESA) in 2011 which stated that the average age of video game players is approximately 37 with 29% of players aged over 50. Moreover, within the same source, Phan *et al.* (2012) stated the presence of change within the gap of gender of video game players from 40% female proportion in 2010 to be increased to 42% within 2011.

With the belief of change, the researcher would like to conduct a replicating research of Phan *et al.* (2012) which was five years ago, to be updated to the most factual condition of 2017 where most people believe in gender equality. With the expectation of more equal condition within the video game usage, preference, and behavior between male and female.

The study aim to fulfill the gap where previous research which found many game companies considered the term of girl-games and believe that female players are attracted to the games with the color pink; fashion, shopping, and dating games as associated with the Barbie Fashion Designer Game; and that female gamer dislike games with competition, mastery of skill, violence, gore, and complex scenarios

(Dickey, 2006; Jensen & de Castell, 2007; Cunningham, 2011; Phan *et.al.*, 2012) with the research findings by Phan *et.al.* (2012) which stated that both male and female gaming preference upon those genres are present and some are equally represented in driving, sport and adventure game. The difference in preferences in gaming are the product of marketing which was classified games into gender-specified which might not be relevant by the current era of gender equality.

The objectives of the research are to know the gender-based differences within the behavior of the Video Game players and how the usage either preferences of the Video Gamers based on each Gender through a research replicating from the research from Phan *et.al.* (2012).

From the theoretical side, this study contributes to other researchers regarding the description on the Usage and Preference of Male and Female toward videogame; and describe the difference in the Behavior between Male and Female game players. Moreover, for the company point of view, this study provides better insight regarding the aspect of consumer behavior, preference and usage of the product of the game developers. Thus, this study could be used by game developers as a base to achieve competitive advantage, considering the increasing level of competition between developers.

## **LITERATURE REVIEW**

### ***Video Game***

Bernhaupt (2016, 189) make a definition of video game which is easily to be understood which is “Video game is an umbrella term for all electronic games, independent of their platform (computer, consoles, arcades, handheld, smartphone, etc.). Thus, the old school stereotype to connoting Video Game as the only game played on consoles and big TV invalid due to this definition made by Regina Bernhaupt in 2016). Schell (2015, p.12; as cited in Valentine *et.al.*, 2016, p.3) described the components of video game into four core elements to compose a video game; they are: (a) mechanics, (b) story, (c) aesthetics and (d) technology.

### ***Consumer Behavior***

Consumer Behavior perceived as the behavior which displayed by consumer in their act of searching, purchasing, using, evaluating, and disposing goods and/or services which is expected to fulfil the needs which was started by Schiffman & Kanuk (2007, p.3). The study of the Consumer Behavior takes focus on the time, money and effort which are spent by consumers upon purchasing consumption-related goods or services (Schiffman et.al. 2010, p.4)

Consumers influenced by several internal factors (motivation, perception, learning, personality, and attitudes) and external factors (marketing input and sociocultural input) upon purchasing decision they made (Schiffman et.al. 2010, p.25). Consumer decision making process which is part of the consumer behavior; could be viewed as three stages which is related to each other; they are: input stage, process stage, and output stage as they cited in (Schiffman & Kanuk, 2010, p.36).

According to Phan *et.al.* (2012) the consumer behavior of Video Game based on the gender, male gamers tend to have more gaming frequency and duration in comparison to female gamers. Male gamers found to have gaming as their main hobby, more passionate and hate interruption than female gamers who also prefer physically interactive games, feeling guilty when gaming, only play when the others are playing and more likely to sell their consoles when short on cash.

### ***Preference***

According to Salvatore (2013: 57-74, as cited in Rahayu, 2016), the concept of preferences with regard to the ability of consumers in drawing up the priority option to be able to take a decision. At minimum there are two attitudes relating to consumer preferences that is preferred (prefer) and or equally preferred (indifference).

According to Kotler (2010, as cited in Rahayu, 2016), consumer preferences are formed through variables habits, tendencies, and compliance against a wide variety of products or suppliers were available. Consumer preferences can be described as an attitude of consumers towards one choice brand products and

suppliers that are formed through the evaluation process. There are four approaches to explain the preference of consumers, ranging from the ordinal approach (approach curves nonchalance), Cardinal approach (approach to the classical limit), as well as preference revealed approach attributes.

Therefore, in accordance with the stated literature review, this study proposes hypotheses as follow:

H0 : There are no significant difference of the Behavior between Male and Female Video Game Players

H1 : There are significant difference of the Behavior between Male and Female Video Game Player (Phan *et.al.*, 2012)

## **METHODOLOGY**

The research going to describe the Usage and Preference of Video Game and further would use independent t-test with purpose to capture the Behavior difference of the Video Gamers. The picture which going to be captured embodied several elements, they are: difference behavior differences toward Video Game, and description of the preference in genre of game the Gamers play also the usage.

This study use primary data as a data source, which gathered directly from structural questionnaires spread to respondents with age restriction of 17 year old and above, who have played any video game at least once in a week.

The population of this study would be all Video Game Players in Surabaya. This study will adopt non-probability sampling technique. Specifically, this study will use quota sampling method due to the need of proportional sample between Male and Female respondents as purposed by the previous study of Phan *et.al.* (2012) which are 100 Male and 100 Female respondents.

This study will use interval scale method to gather ordinal data. Specifically, this study will use Likert scales. Thus, for Behavior variable, the scales used to measure variables would be ranked through five-point numerical scales (1 = strongly disagree to 5 = strongly agree). Specifically, the Likert scales used would be pictured as follows;

Strongly Disagree    1       2       3       4       5       Strongly Agree

This study will use SPSS 23 for Windows in order to analyze the gathered data with Validity and Reliability test conducted upon the data in order to show the validity (used Pearson Correlation) and reliability (used Cronbach's Alpha) of each item within the research instrument which is offline paper questionnaires. Further, descriptive statistics would be used in order to display the necessary description to answer the research questions. Moreover, the Independent Sample T-Test used to get the answer upon the Hypothesis of the Behavior variable.

## **RESEARCH RESULT**

The age of the respondents which is separated based on the gender are distributed as: Male and Female respondent aged 17 to 20 had the percentage of 23% and 18% respectively; aged 21 to 24 with the proportion of 65% of the male respondent and 42% of the female respondents; age of 25 to 28 Male 11% and Female 17%; age 29 to 32 Male 2% and Female 6%; moreover, aged 33 and above counted as Male 4% and Female 17%. Thus, from the age-gender classification could be indicated the dominant age of the Male respondent are those aged 21 to 24 with 65% proportion and of the Female respondent dominated by the same age group of 21 to 24 with 42% proportion of total female respondent.

Male respondents tend to start at 8 years 3 month old or at the third grade of elementary school education level, while the Female gender group had the older starting age to game at 12 years 8 month old or at the late sixth grade of elementary school education level or the early stage of the seventh grade of middle school. Further, Male gamers spent more resource than the Female respondent within this research. The Male respondents spent the average of 20.39 hours per-week to do game which is about 46% more hours been spent than the female respondents which is only counted at the average of 11.47 hours. Moreover, the money spent on gaming related expenses also differs in quiet big gap which Male respondents averagely spent IDR 762,050 yearly while 49% lower, the Female respondents has the average yearly gaming related expense of IDR 388,700. Moreover, most of the Male

Respondents self-classifying as Expert Player (52 Respondents) which has the percentage of 62% of the Male Respondent. On the other case, Female Respondents mostly self-classifying as Novice Player (77 Respondents) with the percentage of 77% of all Female Respondents.

For the preference upon gaming device, Computer and Smartphone dominating as the most preferred Gaming Device of Male with the amount of 75 (44.6%) and 73 (43.5%) respectively. On the other Gender, dominated by Smartphone/handheld as the most preferred gaming device by the Female Respondents which is 91 female respondent out of 100 choose Smartphone/handheld. Thus, 91% of the Female Respondents chose Smartphone/Handheld

While for the Preference of the respondents toward video game genres were Male Respondents are mainly prefer Strategy, Action, and Sports Game Genre; of which scored 66, 64, and 47 respectively. Meanwhile, Female Respondents on the contrary rather having noticeably low interest on those top 3 Game Genres chose by Male respondents. On the other hand; Female Respondents top 3 choices are Puzzle/Card, Social, and Music/Dance Genres numbered 64, 57, and 51 respectively.

**Table 1**  
**Constructs and the items**

| No | Statement of Behavior                                | Male |                | Female |                |
|----|--|------|----------------|--------|----------------|
|    |  | Mean | Std. Deviation | Mean   | Std. Deviation |
| 1  | I tend to game during weekends.                      | 3.57 | 1.130          | 3.46   | 1.184          |
| 2  | I tend to game during evenings.                      | 3.98 | 0.932          | 3.80   | 1.155          |
| 3  | I spend more time gaming than watching TV.           | 3.66 | 1.297          | 2.69   | 1.331          |
| 4  | I spend more time gaming than doing household chores | 2.99 | 1.330          | 2.50   | 1.291          |

|            |  |      |       |      |       |
|------------|--|------|-------|------|-------|
| 5          | I tend to game for long periods of time.             | 3.48 | 1.141 | 2.74 | 1.186 |
| 6          | I prefer physically interactive games.               | 2.81 | 1.134 | 2.43 | 1.008 |
| 7          | I hate to be interrupted when I game                 | 3.56 | 1.166 | 3.38 | 1.179 |
| 8          | Gaming is my main hobby                              | 2.69 | 1.245 | 2.15 | 1.149 |
| 9          | Gaming is totally immersive                          | 3.31 | 1.107 | 3.30 | 1.251 |
| 10         | I only play when other people are playing            | 3.12 | 1.131 | 3.20 | 1.163 |
| 11         | I love my video game device(s)                       | 3.71 | 1.183 | 3.30 | 1.219 |
| 12         | I often lose a sense of time when I play video games | 3.06 | 1.332 | 2.80 | 1.356 |
| 13         | I forget where I am when I game                      | 2.06 | 1.108 | 2.10 | 1.115 |
| Total Mean |  | 3.23 |       | 2.91 |       |

*Source : data processed by SPSS 23.0 for Windows*

Regarding **Table 1** above, the most interesting finding is the Behavior of both Male and Female respondents whom gaming tendencies take time in the evenings. Both gender shows high **mean value 3.98** for **Male** and **3.80** for **Female** respondents. Meanwhile, the statement with the lowest mean score is “I forget where I am when I game”; the Male respondents scored **2.06** and Female respondents scored **2.10** in mean. The result indicated negative response toward the statement which means both gender are disagree with the statement.

While the lowest Standard Deviation value presence in the statement of “I tend to game during evenings” for the Male respondents with the score of **0.932** and “I prefer physically interactive games” for female respondents with **1.008** score.

Further, the highest Standard Deviation presence in the statement of “I often lose a sense of time when I play video games” of which both Male and Female Respondents had the most varied answer within this statement with **1.332** and **1.356** standard deviation respectively. And the summarizing mean of both gender for male

which is **3.23** and for female **2.91** which indicated that all male respondents indicated positive perception toward the Behavior Variable; while the female respondents indicated negative perception toward the Behavior Variable.

**INDEPENDENT SAMPLE T-TEST**

Independent Sample T-Test were done in order to capture the Empirical proof as the cornerstone in giving marketing treatment toward both of the gender. As the major marketing of the videogame treated in the similar manner between Male and Female gamers, thus with the difference of Behavior empirical data used to adjust the future marketing treatment in order to efficiently target the video game consumers.

From the table 2 below, the test result generated through the utilization of SPSS significant value within the Lavene’s Test for Equality of Variance is  $0.668 > 0.05$ ; which mean that it could be concluded that the data is homogenous. Thus, the t-test should be used is the Equal Variance Assumed. Whereas the significant value result is 0.001 which is lower than 0.05 as the value of  $\alpha = 5\%$ .

**Table 2**  
**Independent Sample T-Test Behavior**

|              |                             | <b>Lavene’s Test for Equality of Variances</b> | <b>t-test for Equality of Means</b> |                        |
|--------------|-----------------------------|--|-------------------------------------|------------------------|
|              |                             | <b>Sig.</b>                                    | <b>Sig. (2-Tailed)</b>              | <b>Mean Difference</b> |
| MeanBehavior | Equal Variances Assumed     | .668   | 0.001                               | 0.31923                |
|              | Equal Variances Not Assumed |  | 0.001                               | 0.31923                |

*Source : data processed by SPSS 23.0 for Windows*

### **BEHAVIOR VARIABLE HYPOTHESIS TESTING**

As the Significance value of the T-Test for Equality of Means from the table 2 above numbered as 0.001 which is lower than 0.05, it means that there is significant difference between the two samples. Thus, it could be concluded that H<sub>0</sub> is rejected and H<sub>1</sub> is accepted or there is Significant Difference of the Behavior variable between Male and Female video game players.

### **CONCLUSION AND RECOMMENDATION**

Most of the Video Game enthusiasts are the adolescents and young adults; even though the age of the video gamers varies from adolescents to middle adults in their forties, those dominants aged 17 to 20 and 21 to 24. Averagely, all of the video game users admit to start to play at the age of 8.26 years old for Male and 12.70 years old for Female which means video gamers averagely start as an elementary schoolers. Moreover, Male video gamers tend to spends more money and time compared to Female video gamers in average which is 20.39 hours to 11.47 hours and IDR 762,050 to IDR 388,700.

The majority of the Male Video Gamers admit an Expert in self-classifying, while Female Video Gamers considered themselves as Novice. On the other case, the preference regarding the gaming devices being preferred by the Male Video Gamers are Computer and Smartphone whereas the Female Video Gamers also prefer to uses Smartphone to do game. Moreover, the Game Genre Preference of the Male Video Gamers are Strategy, Action, and Sports which is contrast with the Female Video Gamers who prefers Puzzle/Card, Social and Music/Dance. As the research previously resulted from the data processed through Independent Sample

T-Test, the Hypothesis testing found the accepted hypothesis conclude that **there is significant difference** in overall Behavior between Male and Female Video Gamers.

From the result of this study, significant difference in Behavior occurs between Male and Female Video Game players. Thus, the game developer should take a more concern regarding how Male and Female Video Gamers behaves to make a principle regarding game developments to better suits the customers.

Further; from how the Male and Female Video Gamers has their very own preferences toward game genres should be a future development consideration of which Males gamers whom preference are Action, Strategy, and Sport Genres of which genre took the least interest of the Female gamers could be supported the future game development research to create a new game of Action, Strategy, and Sport like never before. Whereas it possibly an innovation of genres combination with the genres which the Female gamers prefers which are Puzzle/Card, Social, and Dance/Music with specific proportion suits the market best and which the action could be done at the reverse point of view depends on which gender the company prioritize as the main target market.

The final recommendation would be for the company to consider the educative content due to the research which found the average age to started video gaming considered rather young. Thus, even though the game might be violent in the content due to its genre or pointless because of the casual gameplay the backstory needed in order to point out the moral values. In the result, video game might be the part of character education of each children and even the facility to boost knowledge

in language for those in different mother language and boost knowledge in other sciences.

This research have limitations which might be the opportunities for the further researches

- a. The research covers only Video Game Industry as the research subject which might possibly applied toward other Industries
- b. The research did not specified into one specific game or game genres of which might be developed into small specified groupings in order to contribute toward certain company rather than the industry as the whole.
- c. The specified geographical location of the research which is in Indonesia would likely to have differences with the difference in nations. Such as nations within different continents especially those of developed countries, such as; in Europe, America or Australia which might possibly give different research results as the difference in mindset.
- d. The sample of this research could be considered small which could be boosted in reliability as the research sample be increase.

## REFERENCES

- Ansari, Chairul, Subhan Hadil, Karel Susetyo, Agus Triyanto, Bambang Pujicahyono, Fadhiya Djunaidy, Ike Kusumaningtyas, and Yonda Nurtaqwa. *Penetrasi Dan Perilaku Pengguna Internet Indonesia*. Publication. Jakarta: Asosiasi Penyelenggara Jasa Internet Indonesia (APJII), 2016. Print.
- BERNHaupt, REGINA. "Video Game and Game Genres." *GAME USER EXPERIENCE EVALUATION*. Place of Publication Not Identified: SPRINGER INTERNATIONAL PU, 2016. <<https://books.google.co.id/books?id=8IHMCQAAQBAJ&pg=PA189&lpg=PA189&dq=video+game+esposito+2005&source=bl&ots=PoXdjfLDHr&sig=wUv-ghuJhY5JU1eSLfXQEaKevWQ&hl=en&sa=X&ved=0ahUKEwj4IfUrZbSAhVLgI8KHWW9C1sQ6AEIXDAO#v=onepage&q=video%20game%20esposito%202005&f=false>>
- Bray, J. P., 2008. *Consumer Behaviour Theory: Approaches and Models*. Discussion Paper. Unpublished.
- Cunningham, Carolyn. "Girl game designers." *new media & society* 13, no. 8 (2011): 1373-1388.
- Dickey, M.D., 2006. *Girl gamers: The controversy of girl games and the relevance of female-oriented game design for instructional design*. *British journal of educational technology*, 37(5), pp.785-793.
- Fields, Tim. "What Is Social Game? Are Mobile Games Social?" *Mobile & Social Game Design: Monetization Methods and Mechanics*. 2nd ed. CRC, 2014. 7-20. Web. <<https://books.google.co.id/books?id=DZSlAgAAQBAJ&pg=PA8&lpg=PA8&dq=social+game+definition&source=bl&ots=2olEWsk4QL&sig=Hd4DvrOGBL9ZzivbslsFjji2sIs&hl=en&sa=X&ved=0ahUKEwif98q20cXTAhULMI8KHAMkAYgQ6AEIiAEwFA#v=onepage&q=social%20game%20definition&f=false>>
- Gale, Thomson. "Entertainment Industry." *International Encyclopedia of the Social Sciences*. Encyclopedia.com, 2008. Web. 10 Jan. 2017. <<http://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/businesses-and-occupations/entertainment-0>>.

"Indonesian Games Market 2015." NEWZOO SUMMER SERIES #21: INDONESIAN GAMES MARKET. Newzoo, 16 Sept. 2015. Web. 10 Nov. 2016.

<<https://newzoo.com/insights/infographics/newzoosummer-series-21-indonesian-games-market/>>.

"Indonesia Insights." Newzoo, n.d. Web. 10 Nov. 2016.

<<https://newzoo.com/insights/countries/indonesia/>>.

Jenson, J., de Castell, S. and Fisher, S., 2007, November. Girls playing games: rethinking stereotypes. In Proceedings of the 2007 conference on Future Play (pp. 9-16). ACM.

Kothari, C. R. "Sampling Design." Research Methodology Methods & Techniques. 2nd Ed. New Delhi: New Age International (P), 2004. 58-59. Print.

Lake, Laura A. Consumer Behavior for Dummies. Chichester: John Wiley, 2009. PDF.

List of video game genres. (2017, February 24). In Wikipedia, The Free Encyclopedia. Retrieved 01:29, February 27, 2017, from <[https://en.wikipedia.org/w/index.php?title=List\\_of\\_video\\_game\\_genres&oldid=781923915](https://en.wikipedia.org/w/index.php?title=List_of_video_game_genres&oldid=781923915)>

Phan, M. H., J. R. Jardina, S. Hoyle, and B. S. Chaparro. "Examining the Role of Gender in Video Game Usage, Preference, and Behavior." Proceedings of the Human Factors and Ergonomics Society Annual Meeting 56.1 (2012): 1496-500. Web.

"Puzzle Video Game." Wikipedia. Wikimedia Foundation, 03 Apr. 2017. Web. 20 Mar. 2017.

<[https://en.wikipedia.org/wiki/Puzzle\\_video\\_game#cite\\_note-gamespot\\_history-2](https://en.wikipedia.org/wiki/Puzzle_video_game#cite_note-gamespot_history-2)>

PwC. "PwC's Entertainment & Media Outlook Forecasts U.S. Industry Spending to Reach \$720 Billion by 2020." PwC's Entertainment & Media Outlook Forecasts U.S. Industry Spending to Reach \$720 Billion by 2020. N.p., 8 June 2016. Web. 11 Jan. 2017. <<http://www.prnewswire.com/news-releases/pwcs-entertainment--media-outlook-forecasts-us-industry-spending-to-reach-720-billion-by-2020-300281287.html>>.

Racing video game. (2017, January 18). In Wikipedia, The Free Encyclopedia. Retrieved 02:37, February 27, 2017, from <[https://en.wikipedia.org/w/index.php?title=Racing\\_video\\_game&oldid=776066996](https://en.wikipedia.org/w/index.php?title=Racing_video_game&oldid=776066996)>

- Rahayu, Yulinda. Faktor-Faktor Yang Menentukan Preferensi Masyarakat Dalam Menggunakan Akad Pembiayaan Mudharabah Dan Musyarakah Pada Lembaga Keuangan Syariah Di Kota Bandung. Thesis. Universitas Islam Bandung, 2016
- Rašković, Matevž, and PolonaGrahek. "Testing the Cultural Universality of Young-Adult Consumer Purchase Decision-Making Styles: Empirical Results from Turkey, Malaysia, Kazakhstan and Egypt." *International Journal of Management Cases Int J Managmnt Cases* 14.1 (2012): 87-99. Web. 18 June 2016.
- Role-playing game. (2017, April 30). In Wikipedia, The Free Encyclopedia. Retrieved 01:42, February 27, 2017, from <[https://en.wikipedia.org/w/index.php?title=Role-playing\\_game&oldid=777956542](https://en.wikipedia.org/w/index.php?title=Role-playing_game&oldid=777956542)>
- Sava, A. M. (2016). Are Leisure And Work Productivity Correlated? A Macroeconomic Investigation. *Annals-Economy Series*, 3, 155-159.
- Schiffman, Leon G., Leslie Lazar. Kanuk, and Joseph Wisenblit. *Consumer Behavior*. Vol. 6. Upper Saddle River, NJ: Pearson Education/Prentice Hall, 2010. Google Books. Web. 30 May 2016. <<https://books.google.co.id/books?id=VDXiBAAAQBAJ&printsec=frontcover#v=onepage&q&f=false>>.
- Valentine, Keri Duncan, and Lucas John Jensen. "Toward Broader Definitions of Video Games." *Examining the Evolution of Gaming and Its Impact on Social, Cultural, and Political Perspectives*. Hershey, PA: Information Science Reference, 2016. 1-37. <[https://books.google.co.id/books?hl=en&lr=&id=nt15DAAAQBAJ&oi=fnd&pg=PA1&dq=video+games+definitions&ots=WLeKBfYFG1&sig=s2T\\_fm7Ber1k5P6vF4ENp0ZFrJY&redir\\_esc=y#v=onepage&q=video%20games%20definitions&f=false](https://books.google.co.id/books?hl=en&lr=&id=nt15DAAAQBAJ&oi=fnd&pg=PA1&dq=video+games+definitions&ots=WLeKBfYFG1&sig=s2T_fm7Ber1k5P6vF4ENp0ZFrJY&redir_esc=y#v=onepage&q=video%20games%20definitions&f=false)>
- Van Den Berg, Ruben Geert. "SPSS Independent Samples T Test." *SPSS Tutorials*. N.p., 16 Sept. 2014. Web. 20 June 2017. <<https://www.spss-tutorials.com/spss-independent-samples-t-test/>>.
- "What Is Fighting Game? - Definition from Techopedia." *Techopedia.com*. Web. 27 February 2017. <<https://www.techopedia.com/definition/27154/fighting-game>>.
- Yap, Chloe Wai San, and Rashad Yazdanifard. "How Consumer Decision Making Process Differ From Youngster to Older Consumer Generation." *Journal of Research in Marketing* 2.2 (2014): 151. Web. 18 June 2016.