

The Role of Intellectual Property Awareness and Motivation in Game Product Innovation as a Creative Industry †

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Abstract: The game industry has continued to grow over the past few years. Games are being developed, and have an economic value not only in the artistic sector, but also in the industrial sector, the latter being known as the creative industry. The game industry needs to be appreciated as an intellectual body that has economic value and requires legal protection. Therefore, it is necessary to know the role of intellectual property awareness and the motivation of game developers in developing innovative products. It is also necessary to know the game developer's understanding of games as part of the creative industry.

Keywords: creative industry; game product innovation; game development motivation; game developer; intellectual property awareness



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1. Introduction

One of the creations of the human mind related to the technology used for entertainment is video games [1]. In this study, to simplify the description of the research goal, the term “video game” is replaced with “game”. A game is played by manipulating electronic images generated by computer programs on a television or the display screen of a gaming console [2]. There are several genres of games, including action games, action–adventure games, adventure games, role-playing games, simulation games, strategy games, music games, party games, sports games, and trivia games [3]. Games are used not only in the art sector as a form of expression, but also in the industrial sector, where they have economic value, the latter being known as the creative industry [4]. In contrast to the characteristics of the industry in general, the creative industry includes various types of industries, each of which has a role in the process of transforming an idea or various ideas into intellectual property, providing high economic value for the prosperity and work of the field's community and promoting the economic growth of countries [5,6].

The game industry has continued to grow over the past few years [7]. According to the Cipta Karsa Adikarya (CAKRA) association, in 2018, before the pandemic occurred, the Indonesian game market earned USD 1.13 billion. Furthermore, Asosiasi Game Indonesia (AGI) reported a significant global game industry growth throughout the pandemic. In 2021, the Indonesian game industry gained recognition in the world game market, with a total of 118 million active game players. The game industry revenue in Indonesia reached USD 2.08 billion that year. Based on research conducted by the Ministry of Communications and Informatics and the AGI in 2020, local industry players can only control 2% of the Indonesian game market. Due to this, although the creative industry was ranked third in contributing to Indonesia's gross domestic product (GDP), the gaming industry earned the third lowest rank as a GDP contributor when compared to other subsectors, the reason

being the low production by local game developers, even though the number of game users in Indonesia increased during the pandemic and continues to increase. This phenomenon shows that the games produced by Indonesia are still less attractive or their performance is not optimal compared to games produced abroad. Money is flowing out of the country due to gaming activities. The government must encourage the national game production, so that it can become a leading sector and help the national economy.

Games are complex intellectual works that utilize various forms of artwork, such as music, scripts, splits, videos, pictures/paintings, and characters, requiring the player's involvement and software on specific hardware [8,9]. Therefore, the game industry needs to be rewarded for its intellectual work, economically with legal protection [4,10]. This can be realized by recognizing intellectual property (IP) [11]. The Intellectual Property Right (IPR) is related to the results of creative activities, i.e., to the ability of the human thought, expressed to the general public in various forms, to provide benefits, and help support the life of humans, thus, acquiring an economic value [12,13]. Intellectual property rights can be divided into two groups: copyright and industrial property rights. Copyright regards science, art, and literature. Industrial property rights consist of patents, trademarks, industrial designs, integrated circuit layout designs, trade secrets, and the protection of plant varieties. A game can be seen as an intellectual masterpiece of a human expressed using computer program science; therefore, games are the intellectual property of their creators [14]. A game is also a complex intellectual work with various elements that have intellectual property; therefore, a game has both copyright and industrial property rights in the form of trademarks and patents [12,15]. Preventive protection can be provided through laws on economic benefits for creative industry actors who register their intellectual property rights [16,17]. However, the lack of public awareness and understanding of the importance of IPRs prevents the optimal implementation of this [18].

This problem is allegedly due to the limited implementation of IPRs in Indonesia, which causes game developers to be less aware of the importance of intellectual property and less motivated to innovate their products. Motivation in game developers helps create innovative game products [8,19]. New games must elicit a particular "surprise" or "astonishment" for gamers to have fun and become immersed in the game [20]. This prompted our research on intellectual property awareness and product innovation motivation in the game industry, considered as a creative industry.

2. Methods

The population of this quantitative research consisted of Indonesian students who chose to stream games. Random cluster sampling was used. We recruited 44 students across various universities in Indonesia. This study used a questionnaire containing 40 statements with a Likert scale (SD: strongly disagree; D: disagree; N: neutral; A: agree; SA: strongly agree). The Rasch model analysis was used to test the quality of the questionnaire and the answers given by the respondents [21,22]. In the Rasch model, the respondent was said to be a person, while each questionnaire item was stated to be an item. Cronbach's alpha value was 0.94, i.e., >0.80, and classified as very good [21,23]. This coefficient measured the reliability, namely, the interaction between the person and the item. This was supported by the value of each person's reliability, which was 0.92, in an interval of 0.91–0.94, and was also classified as very good. In addition, the value of each item's reliability was 0.84, in an interval of 0.81–0.90, and classified as good as well. Therefore, it could be concluded that the respondents' answers had excellent consistency, and that the quality of the items in the instrument was good [22,24].

This study had four variables: the awareness of intellectual property, motivation to develop game products, innovation to develop game products, and understanding the game industry as a creative industry. With the first research objective, we wanted to examine the effect of awareness on intellectual property and motivation in developing game product innovation. The data analysis technique used multiple linear regression techniques. With the second research objective, we wanted to analyze students' understanding of games

as a part of the creative industry. This variable was analyzed using descriptive statistics that enriched the research results.

3. Results and Discussion

3.1. Profile of Respondents

Forty-four respondents were involved in this study, of whose backgrounds are presented in Table 1. The respondents had diverse backgrounds, including gender, domicile, level of study, and captured stream. They were students from various universities across various regions in Indonesia. This diversity enriched the results of this research so that it could reflect conditions in the field related to the topic under study [25].

Table 1. Demographic data of respondents.

No	Aspect	Frequency	Percentage
1	Gender		
	Man	30	68.18%
	Woman	14	31.82%
2	Domicile		
	Sumatra (Aceh, North Sumatra, South Sumatra, and Bengkulu) and Riau	7	15.91%
	Java (Jakarta, Banten, West Java, Central Java, East Java, and Yogyakarta) and Bali	29	65.91%
	Kalimantan (Central Kalimantan and East Kalimantan)	3	6.82%
	Sulawesi (South Sulawesi)	3	6.82%
	Papua (West Papua)	2	4.55%
3	Study Level		
	D3	1	2.27%
	D4	4	9.09%
	S1	39	88.64%
4	Captured Stream		
	Game Designer	20	45.45%
	Game Artist	5	11.36%
	Game Programmer	12	27.27%
	Game Project Management	7	15.91%
	Educational Game Development	0	0.00%

3.2. Descriptive Statistics

The respondents' innovation in developing game products is presented in Table 2. In total, 72.73% of respondents stated that the source of ideas for designing games was abundant in Indonesia. Hence, 61.36% of respondents easily found it. The idea to design games from childhood experiences was obtained by 63.64% of the respondents. Almost all respondents (93.18%) agreed that the creative process of game development could be built by discussing these ideas. In total, 86.36% of respondents thought that established games affected new games they were developing, and 88.64% of respondents thought that the presence of large game design studios also affected the development of new games. In total, 79.55% of respondents designed games according to their preferred genre, and 75.00% oriented towards consumer interest. During COVID-19, 47.73% of respondents thought that creativity and innovation in game development in Indonesia were disrupted, although a small percentage of respondents (31.82%) felt undisturbed, and the remaining 20.45% felt normal. The creative industries have not shown sufficient resilience against the pandemic. The impact was particularly severe for self-employed and part-time creative workers, except in the publishing, social media, IT, and software subsectors [26,27]. Most respondents (75.00%) agreed that game creativity and innovation would bounce back in 2023 or postpandemic.

Table 2. Innovation in game product development.

No	Statement	SD	D	N	A	SA
1	Sources of ideas for designing games are abundant in Indonesia.	0.00%	0.00%	27.27%	43.18%	29.55%
2	I quickly find ideas for game development in Indonesia.	0.00%	6.82%	31.82%	40.91%	20.45%
3	An established game is likely to influence me to develop new games.	0.00%	0.00%	13.64%	54.55%	31.82%
4	The presence of a large game design studio could affect the development of new games.	0.00%	0.00%	11.36%	45.45%	43.18%
5	I am likely to design game genres that I like.	0.00%	2.27%	18.18%	36.36%	43.18%
6	I have always been consumer-oriented when designing games.	0.00%	2.27%	22.73%	52.27%	22.73%
7	Game development creativity and innovation in Indonesia were disrupted during COVID-19.	15.91%	15.91%	20.45%	36.36%	11.36%
8	Game creativity and innovation will be more intense in 2023 or postpandemic.	2.27%	0.00%	22.73%	34.09%	40.91%
9	My childhood experiences shaped my decision to design games.	0.00%	2.27%	34.09%	31.82%	31.82%
10	The creative process of game development can be built through discussion.	0.00%	0.00%	6.82%	36.36%	56.82%

The respondents’ motivation in developing game products can be seen in Table 3, where 61.36% of respondents aimed to produce games as a medium for delivering messages. Most respondents (72.73%) developed games to fill their spare time. In total, 63.64% of respondents stated that interaction and competition with other players drove them to design games, 63.64% of respondents were game lovers since childhood on various platforms, and 72.73% of respondents aspired to work in big game companies. Overall, 68.18% of respondents wanted to be known as innovators or creative people, 43.18% of respondents were inspired by public figures or figures they admired, while 43.18% felt that they were normal; the remaining 13.64% were not inspired. Most respondents (77.27%) stated that games had a very potential market niche in Indonesia due to the popularity of smart devices and the need for each user to play games [28]. However, 52.27% of respondents were unsatisfied with the available game variants, only 11.36% were satisfied, and the remaining 36.36% felt normal.

Table 3. Motivation to develop game products.

No	Statement	SD	D	N	A	SA
1	I produce games as a medium for delivering messages.	0.00%	4.55%	34.09%	31.82%	29.55%
2	I develop games as a means of entertainment to fill my spare time.	0.00%	2.27%	25.00%	31.82%	40.91%
3	Interaction and competition with other players are the main variables that drive me to design games.	0.00%	2.27%	34.09%	40.91%	22.73%
4	Games have a very potential market niche in Indonesia.	0.00%	0.00%	22.73%	38.64%	38.64%
5	The popularity of smart devices in Indonesia and the needs of each user to play games.	0.00%	2.27%	20.45%	36.36%	40.91%
6	I have been a game lover since childhood on various platforms.	2.27%	6.82%	27.27%	11.36%	52.27%
7	I aspire to work in a big company in the gaming field.	0.00%	4.55%	22.73%	36.36%	36.36%
8	I want to be known as an innovator or creative person.	2.27%	0.00%	29.55%	29.55%	38.64%
9	I am inspired by public figures or figures that I admire.	6.82%	6.82%	43.18%	22.73%	20.45%
10	I am not satisfied with the game variants currently available.	2.27%	9.09%	36.36%	27.27%	25.00%

Respondent awareness of intellectual property (IP) can be seen in Table 4, showing that 52.27% of respondents understand the definition and examples of IP, 65.91 respondents understood the importance of IP in protecting the creative industry, and 61.36% of respondents knew the importance of IP, especially for game developers. Respondents knew that in the IP of a game, various things must be protected, for example, copyright (77.27%), trade secrets (86.36%), as well as brand rights and patents (75%). In total, 61.36% of respondents knew about copyright infringement on games, and 75.00% of respondents knew piracy was detrimental to game developers. However, on the other hand, most respondents (70.45%) rated Indonesia as one of the countries with the highest software piracy cases in Asia. As a

result, the level of satisfaction with implementing IPR in the creative industry was low [17]. Most respondents (56.82%) felt that it was normal, 40.91% of respondents were satisfied, and only a few respondents (2.27%) were dissatisfied. This could be used as a metaphoric whip for increasing the implementation of IPR in the creative industry.

Table 4. Awareness of intellectual property.

No	Statement	SD	D	N	A	SA
1	I understand the definition of intellectual property and its examples.	0.00%	0.00%	47.73%	31.82%	20.45%
2	I understand how important intellectual property is in protecting stakeholders in the creative industry.	0.00%	0.00%	34.09%	31.82%	34.09%
3	I know how important intellectual property is, especially for game developers.	0.00%	0.00%	38.64%	27.27%	34.09%
4	Thus far, I am satisfied with the implementation of intellectual property rights in the creative industry in Indonesia.	0.00%	2.27%	56.82%	25.00%	15.91%
5	I know various things must be protected in the copyright of a game.	0.00%	2.27%	20.45%	34.09%	43.18%
6	I know that in game development there are things that become trade secrets.	0.00%	0.00%	13.64%	45.45%	40.91%
7	Brand rights and patents are essential in designing a game.	0.00%	0.00%	25.00%	31.82%	43.18%
8	I know what copyright infringement is against games.	2.27%	2.27%	34.09%	34.09%	27.27%
9	Indonesia is one of the countries with the highest software piracy cases in Asia.	0.00%	2.27%	27.27%	34.09%	36.36%
10	Piracy is very detrimental to game developers.	2.27%	0.00%	22.73%	27.27%	47.73%

Respondent understanding of games as a creative industry can be seen in Table 5, where 81.82% of respondents knew application and game development to be only some of the subsectors of the creative economy. Therefore, 72.73% of respondents thought the game ecosystem contributed to developing the creative economy significantly. During the pandemic, 59.09% of respondents stated that game developers were a subsector supporting the creative economy’s growth. Respondents understood the stages of designing a game (68.18%), could distinguish genres/types of games (84.09%), understand the types of games based on platform (84.09%), knew at least the three largest game developers in Indonesia (54.55%), knew games created by Indonesian developers that penetrated the international market (56.82%), and knew the number one most popular game in Indonesia (59.09%). Several things required attention in this section: (1) it turned out that quite a lot of respondents (20.45%) did not know at least the three largest game developers in Indonesia; (2) more than a few respondents (11.36%) were not aware of any games created by Indonesian developers that penetrated the international market; and (3) a few respondents (36.36%) were players of one of the most popular local games. This finding was interesting, because many respondents did not know the development of the local game industry. This problem showed that the publicity of the game subsector is still lacking, so it is not as well-known as other creative industry subsectors [29].

Table 5. The understanding of the game as a creative industry.

No	Statement	SD	D	N	A	SA
1	I know apps and game development are some of the subsectors of the creative economy.	2.27%	0.00%	15.91%	40.91%	40.91%
2	I understand that the game ecosystem in Indonesia contributes significantly to developing the country’s creative economy.	2.27%	0.00%	25.00%	36.36%	36.36%
3	Game developers are part of a subsector that supported the growth of Indonesia’s creative economy during the COVID-19 pandemic.	0.00%	4.55%	36.36%	34.09%	25.00%
4	I understand the stages of designing a game.	0.00%	2.27%	29.55%	29.55%	38.64%
5	I can distinguish genres/types of games.	0.00%	0.00%	15.91%	34.09%	50.00%
6	I can understand the type of game by platform.	0.00%	0.00%	15.91%	36.36%	47.73%
7	I know (at least three) of the biggest game developers in Indonesia.	9.09%	11.36%	25.00%	29.55%	25.00%
8	I know games created by Indonesian developers that penetrated the international market.	4.55%	6.82%	31.82%	22.73%	34.09%
9	I know the number one most popular game in Indonesia.	0.00%	9.09%	31.82%	31.82%	27.27%
10	I play one of Indonesia’s most popular local games.	13.64%	18.18%	31.82%	20.45%	15.91%

3.3. Inferential Statistics

At this stage, an analysis was carried out to see the effect of awareness on intellectual property (IP) and motivation in developing game product innovation. The data analysis technique used was multiple linear regression. Based on Table 6, we found that the regression constant (y-intercept) was 16.541, the regression coefficient of X₁ was 0.468, and the regression coefficient of X₂ was 0.129; therefore, the regression equation was:

$$\hat{Y} = 16.541 + 0.468X_1 + 0.129X_2. \tag{1}$$

Table 6. Coefficients of multiple linear regression.

Model ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-Order	Partial	Part	Tolerance	VIF
1	(Constant)	16.541	3.483		4.749	0.000					
	Motivation	0.468	0.107	0.610	4.368	0.000	0.725	0.564	0.461	0.572	1.749
	IP	0.129	0.103	0.176	1.262	0.214	0.575	0.193	0.133	0.572	1.749

^a Dependent variable: innovation.

Table 7 shows the significance test of multiple linear regression obtained F = 24.392, df₁ = 2, df₂ = 42, and Sig. = 0.000 < 0.05; then, H₀ was rejected. This showed that the multiple linear regression between the independent variables of motivation (X₁) and IP (X₂) with the dependent variable innovation (Y) was significant.

Table 7. ANOVA.

	Model ^a	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	456.216	2	228.108	24.392	0.000 ^b
	Residual	383.420	41	9.352		
	Total	839.636	43			

^a Dependent variable: innovation; ^b predictors: (constant); IP, motivation.

Furthermore, Table 8 shows that the multiple linear correlation coefficient (R) was 0.737. Based on the significance test of the multiple linear correlation coefficient, we obtained F Change = 24.392, df₁ = 2, df₂ = 41, and Sig. F Change = 0.000 < 0.05; then, H₀ was rejected. This showed multiple linear correlations between motivation and IP with significant innovation. In addition, it also became known that the coefficient of determination (R²) was 0.543 or 54.3%. This showed that the independent variables of

motivation and IP contributed to forming the dependent variable of innovation by 54.3%. In comparison, the remaining 45.7% was influenced by other variables that were not researched.

Table 8. Multiple regression.

Model ^b	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df ₁	df ₂	Sig. F Change
1	0.737 ^a	0.543	0.521	0.521	0.543	24.392	2	41	0.000

^a Predictors: (constant); IP, motivation. ^b Dependent variable: innovation.

Looking back, Table 6 also shows the significance test of the regression coefficients. In the independent variable of motivation (X_1) obtained, the value of $t = 4.368$ with $\text{Sig.} = 0.000 < 0.05$; then, H_0 was rejected. It could, thus, be concluded that the regression coefficient on motivation (X_1) was significant. In other words, there was an influence between motivation on innovation in developing game products. However, the independent variable IP (X_2) obtained the value of $t = 1.262$ with $\text{Sig.} = 0.214 \geq 0.05$; then, H_0 was not rejected, and it could be concluded that the regression coefficient on IP (X_2) was not significant. In other words, IP did not influence innovation in developing game products. This result was strengthened by reviewing the predictor contribution, which consisted of effective and relative contributions. The effective contribution of the motivation variable was $SE(1) = (0.610)(0.725) = 0.4423$, with a relative contribution of $SR(1) = (0.4423)/(0.543) = 0.8138$. This showed that the effective contribution of the independent variable of motivation (X_1) in forming innovation (Y) was 44.23%, which was a relative contribution of 81.38%. Meanwhile, the effective contribution of the IP variable was $SE(2) = (0.176)(0.575) = 0.1012$, with a relative contribution of $SR(2) = (0.1012)/(0.543) = 0.1862$. This showed that the effective contribution of the independent variable IP (X_2) in forming innovation (Y) was 10.12%, which was a relative contribution of 18.62%. The motivational variable contributed a lot to the formation of the innovation variable, but the IP variable only contributed a little. Motivation influenced creative performance, where creative ideas often became innovations [30,31].

This study showed the role of awareness of intellectual property and motivation in developing game product innovations. Motivation played a vital role in innovation in developing game products [30,31], but, on the other hand, awareness of intellectual property rights played a lesser role [32]. The lack of awareness of intellectual property rights in the innovation of developing game products was because quite a few respondents did not know the forms of copyright infringement on games, quite a lot of respondents were not aware that piracy was very detrimental to game developers, and most respondents rated Indonesia as one of the countries with the highest software piracy cases in Asia. These problems certainly resulted in respondents' satisfaction with implementing intellectual property rights in the creative industry in Indonesia, which, ultimately, leads to awareness of intellectual property rights [17]. This finding could be used as a metaphoric whip for increasing the implementation of intellectual property rights in the creative industry in Indonesia.

4. Conclusions and Recommendation

4.1. Conclusions

This study showed the role of the awareness of intellectual property and motivation in developing game product innovations. Motivation played a vital role in innovation in developing game products, but, on the other hand, the awareness of intellectual property rights played a lesser role. The lack of the awareness of intellectual property in the innovation of developing game products was due to (1) quite a few respondents (38.64%) not knowing the forms of copyright infringement on games, (2) quite a lot of respondents (22.73%) not being aware that piracy was very detrimental to game developers (even 2.27%

of respondents strongly disagreed with this statement) and (3) most of the respondents (70.45%) rated Indonesia as one of the countries with the highest software piracy cases in Asia. This finding could be used as a metaphoric whip for increasing the implementation and awareness of intellectual property rights in the creative industry in Indonesia.

Another finding was that the game developers understood that the game industry subsector contributed significantly to the creative industry's growth, especially during the COVID-19 pandemic. Several things needed to be considered, namely, (1) quite a lot of respondents (20.45%) did not know the biggest game developer in Indonesia, (2) more than a few respondents (11.36%) did not know any games created by Indonesian developers that penetrated the international market, and (3) a few respondents (36.36%) played one of the most popular local games in Indonesia. This was an interesting finding, because it showed that the gaming subsector still lacks publicity. The respondents in this study were people in the game industry, but what about the general public?

4.2. Recommendation

Implementing intellectual property rights in the creative industry in Indonesia needs to be improved through law enforcement following applicable regulations and massive socialization to the public. These efforts to grow the public awareness of intellectual property rights in the creative industry in Indonesia were due to the public's lack of enthusiasm for the local game subsector; thus, it is necessary to have large-scale publications in various mass media, both in print and electronic. The public needs to know about the developments in the domestic game industry, domestically created games that have successfully penetrated the international market, and the variety of local games. The hope is that the domestic game industry can dominate a larger market share in their own country, can create game products that can compete with global game developers, and open the eyes of the world that Indonesia is not only a market, but also an essential player in industrial order, domestic, and foreign games.

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References

1. Martinez, L.; Gimenes, M.; Lambert, E. Entertainment video games for academic learning: A systematic review. *J. Educ. Comput. Res.* **2022**, *60*, 1083–1109. [[CrossRef](#)]
2. Alexiou, A.; Schippers, M.C. Digital game elements, user experience and learning: A conceptual framework. *Educ. Inf. Technol.* **2018**, *23*, 2545–2567. [[CrossRef](#)]
3. Apperley, T.H. Genre and game studies: Toward a critical approach to video game genres. *Simul. Gaming* **2006**, *37*, 6–23. [[CrossRef](#)]
4. Rykała, P. The growth of the gaming industry in the context of creative industries. *Bibl. Reg.* **2020**, *2020*, 124–136. [[CrossRef](#)]
5. Bilan, Y.; Vasilyeva, T.; Kryklii, O.; Shilimbetova, G. The creative industry as a factor in the development of the economy: Dissemination of European experience in the countries with economies in transition. *Creat. Stud.* **2019**, *12*, 75–101. [[CrossRef](#)]
6. Pratomo, S.; Azhar, K.; Satria, D. Role of Creative Economy on Local Economic Development. *J. Indones. Appl. Econ.* **2021**, *9*, 27–35. [[CrossRef](#)]

7. Akbar, M.; Asmara, I.J. Worker in video game industry: The gap between indie and incorporated video game developers in Indonesia. *J. Games Game Art Gamification* **2022**, *7*, 22–26. [[CrossRef](#)]
8. Sezgin, S. Digital games industry and game developers in Turkey: Problems and possibilities. *Moment J.* **2018**, *5*, 238–254. [[CrossRef](#)]
9. Ramos, A.; López, L.; Rodríguez, A.; Meng, T.; Abrams, S.; Ramos, A. *The Legal Status of Video Games: Comparative Analysis in National Approaches*; WIPO: Geneva, Switzerland, 2013.
10. Grosheide, F.W.; Roerdink, H.; Thomas, K. Intellectual property protection for video games: A view from the european union. *J. Int. Commer. Law Technol.* **2014**, *9*, 1–13.
11. Fathoni, A.F.C.A.; Ray, J.C. Developing intellectual property character for games to teach music theory by using batik patterns inspiration. *Humaniora* **2020**, *11*, 137–144. [[CrossRef](#)]
12. Mosharrof, S.; Szkalej, K. *Intellectual Property Rights and the Game Industry: Focusing on Copyright Law*; Department of Law, Uppsala Universitet: Uppsala, Sweden, 2020.
13. Sreeragi, R.G. Intellectual property rights (IPR): An overview. *Emperor Int. J. Libr. Inf. Technol. Res.* **2021**, *1*, 27–30. [[CrossRef](#)]
14. Zyukina, Z.; Voropaeva, Y.; Zyukina, Z. Intellectual games concept review in the XIX-XXI century (google book ngram corpus scientific materials base). In Proceedings of the E3S Web of Conferences, Kenitra, Morocco, 25–27 December 2020.
15. Yolesa, J.M.A.; Mulia, A.A.; Anand, C. Copyright protection of video game for game developer in Indonesia. *Notaire* **2019**, *2*, 213–229. [[CrossRef](#)]
16. Bagja, H.N.; Saudi, M.H. The role of IPR as protector of creative industries and MSMEs amid the COVID-19 pandemic in Indonesia. *J. Archaeol. Egypt/Egyptol.* **2020**, *17*, 2773–2780.
17. Mashdurohatun, A.; Yuliawan, I.; Susilo, A.B.; Laksamana, A.W.; Mansyur, M.A. The effectiveness of intellectual property rights protection to improve creative economy realization in Semarang district. *J. Southwest Jiaotong Univ.* **2021**, *56*, 385–393. [[CrossRef](#)]
18. Asri, D.P.B.; Sudiyan, S.; Sriyono, E. Demystifying intellectual property rights in the creative industry SMES. *Int. J. Innov. Creat. Chang.* **2020**, *12*, 2020.
19. Aleem, S.; Fernando Capretz, L.; Ahmed, F. Critical success factors to improve the game development process from a developer's perspective. *J. Comput. Sci. Technol.* **2016**, *31*, 925–950. [[CrossRef](#)]
20. Zackariasson, P.; Walfisz, M.; Wilson, T.L. Management of creativity in video game development: A case study. *Serv. Mark. Q.* **2006**, *27*, 73–97. [[CrossRef](#)]
21. Yasin, R.M.; Yunus, F.A.N.; Rus, R.C.; Ahmad, A.; Rahim, M.B. Validity and reliability learning transfer item using rasch measurement model. *Procedia-Soc. Behav. Sci.* **2015**, *204*, 212–217. [[CrossRef](#)]
22. Smith, E.V. Evidence for the reliability of measures and validity of measure interpretation: A rasch measurement perspective. *J. Appl. Meas.* **2001**, *2*, 281–311.
23. Linacre, J.M. KR-20/Cronbach alpha or rasch person reliability: Which tells us the truth? *Rasch Meas. Trans.* **1997**, *11*, 580–581.
24. Boone, W.J. Rasch analysis for instrument development: Why, when, and how? *CBE—Life Sci. Educ.* **2016**, *15*, rm4. [[CrossRef](#)] [[PubMed](#)]
25. Allmark, P. Should research samples reflect the diversity of the population? *J. Med. Ethics* **2004**, *30*, 185–189. [[CrossRef](#)] [[PubMed](#)]
26. Khlystova, O.; Kalyuzhnova, Y.; Belitski, M. The impact of the COVID-19 pandemic on the creative industries: A literature review and future research agenda. *J. Bus. Res.* **2022**, *139*, 1192–1210. [[CrossRef](#)]
27. Sanjaya, I.N.A. How does COVID-19 pandemic shape gaming industry in Indonesia? *J. Archaeol. Egypt/Egyptol.* **2020**, *17*, 10603–10618.
28. Prasetya, F.A.; Kussudyarsana, K. Indonesian Local Game Developer Marketing Strategy Analysis: Consumer Perspective. *Issues Incl. Growth Dev. Ctries.* **2020**, *1*, 83–92.
29. Alexandri, M.B. Creative business: Analysis of creative industry value chains for application and game developers. *Acad. Strateg. Manag. J.* **2021**, *20*, 1–10.
30. Aldahdouh, T.Z.; Korhonen, V.; Nokelainen, P. What contributes to individual innovativeness? A multilevel perspective. *Int. J. Innov. Stud.* **2019**, *3*, 23–39. [[CrossRef](#)]
31. Trott, P. *Innovation Management and New Product Development*, 6th ed.; Pearson Education Limited: Rotherham, UK, 2017.
32. Wiens, J.; Jackson, C. *How Intellectual Property Can Help or Hinder Innovation*; Ewing Marion Kauffman Foundation: Kansas City, MO, USA, 2015.

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