

Creative Economy of College Student Gamification based on E-Commerce

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Abstract

The application of Blockchain technology in the context of providing security for transactions in the digital era 4.0 to prevent manipulation of transaction recording reports by irresponsible parties. By using research methods 10 (ten) literature reviews and methods of formulating problems, designing research, collecting data, processing & presenting data, analysis & research reports are expected to solve security problems in transactions. At present security in transactions is still very minimal, therefore a blockchain technology is needed to secure transactions where data can still be manipulated. Specifically, there are 2 (two) benefits of this research that use blockchain technology, (1) transactions become safer in the presence of encryption codes, (2) transactions become more transparent with blockchain. This research implements the encryption code into the payment system using AI Coin, where payment is now cashless, to make it more secure and transparent in transactions.

Keywords: Blockchain, AI Coin, Encryption code

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1. Introduction

The era of the industrial revolution 4.0 made the Creative Economy one of the strategic choices to win global competition, marked by continued innovation and creativity in order to increase economic value added through the capitalization of creative ideas. The new economic model is characterized by economic activities based on ideas, ideas, and knowledge creativity as the main factors of production [1].

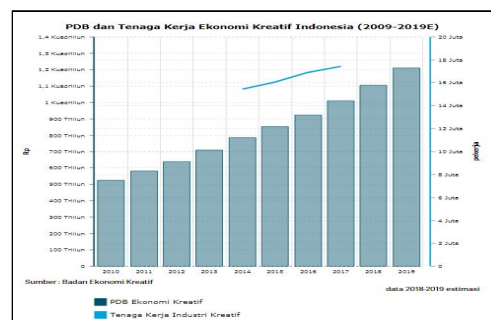


Figure 1. Growth chart of the Creative Economy

Growth of the creative economy has increased and has contributed 7.44% to the national economy. To develop a creative economy in the digital age requires business strategy and development to reach the global market. It is undeniable that digitalization supports the emergence of creative economic actors who are increasingly growing in the midst of global market currents. Utilization of technology in the trend of digitalization increasingly makes the creative economy better and can be competitive in the midst of global market currents [2].

But the problem currently encountered is the lack of knowledge and interest of students towards the digitalization of a creative economy, besides that in Indonesia there are still many agencies that have not been able to provide an-e-commerce container, website-based to accommodate student research products [3]. From this problem a digitalization in the creative economy of students based on e-commerce gamification was made which is expected to increase student interest in the creative economy so that it can produce research products from the results of creativity. and supported by gamification methods that are expected. to attract potential partners and can benefit many people, especially in the fields of education and technology [4].

2. Research Method

From the survey results of the Creative Economy Agency in collaboration with the Central Statistics Agency which contains information on the results of the Special Creative Economy Survey (SKEK) in 2016. The creative economy's GDP grew by 4.38 percent. The creative economy contributes 7.38 percent, which means the creative economy plays an important role in the growth of the national economy [5]. The government supports the development of the creative economy in Inpres No. 6 of 2009 concerning Creative Economy Development. Creative Economy is an economic form that emphasizes information and creativity (provision of knowledge) from human resources (HR) as the main production factor in economic activities. In implementing the creative economy model the community spends most of its time producing ideas that add value from the results of creativity rather than just doing routine and repetitive things [6].

According to the Indonesian Internet Service Providers Association (APJII) and the Communication Studies Research Center at the University of Indonesia, stated that at the end of 2014, Indonesia already had 88,700,000 mobile internet users and this number would consistently increase to 112 million mobile internet users in 2017 with that the Government of Indonesia used it to encourage growth in the digitalization of the creative economy. The digitalization of the creative economy is not only leveling the field of competition, but also every business model of various sizes, industries, and regions. One form of digitalization in realizing a creative economy requires an e-commerce that can provide a forum that can accommodate the results of creativity students [7].

E-commerce is a form of buying and selling transactions carried out through the internet where the website is used as a container to carry out the process. E-commerce is a dynamic set between technology, applications and business processes that connect companies, consumers and certain communities through electronic transactions in the form of electronic goods, services and information trading [8]. As e-commerce that provides student research results and becomes a supporting container in the availability of an I-Learning learning system with new breakthroughs in the application of learning methods such as using iPad as its standard. Becomes a supporting container in the availability of an I-Learning learning system with new breakthroughs in the application of learning methods such as using iPad as its standard [9].

The benefits of e-commerce implementation are that it can be used online or can be accessed at any time and anywhere, and can be through a computer or even a smartphone. With e-commerce, it is expected that there will be no queues in trading activities. The application of gamification in ecommerce is useful for increasing buyer loyalty and providing a motivated effect in conducting transactions by utilizing elements in gamification. Gamification can be used as an online marketing concept involving gamification elements that engage, brand loyalty and brand awareness and to improve the competitiveness among buyers [10].

3. Results and Analysis

The methods used in this research are methods of problem identification, data collection, data analyst, system design and implementation, and evaluation. The purpose of the method is to solve the problem that occurs [11].

3.1 5 Stages of system research

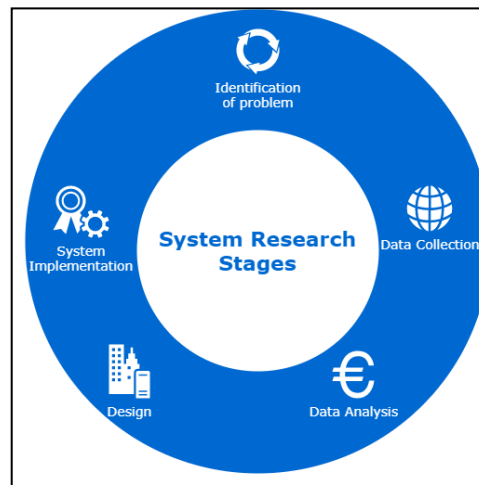


Figure 2. System Research Stages

From (Figure 1), the research method used can be described, First, the Problem Identification method, namely by identifying the problems that occur in the creative economy development of students and the development of scientific publications which are then formulated into a question that will be solved. Second is the data collection method which consists of observations, namely direct observation of an e-commerce that applies the gamification method [12]. Third is the Data Analysis, namely analyzing the data that has been collected and used as a strategy in making a better system. The fourth is Design, namely making system design from data that has been generated previously. Finally System Implementation which consists of designing a prototype system to meet the needs of system users [13].

3.2 Systems Development Methodology

In the process of developing this research system using the agile method. Where the Agile Method is a software system development methodology that is similar to short-term system development that requires rapid adaptation to changes in any form [14]. In practice the method Agile Software Development there are 4 things to consider: interactions and personnel are more important than processes and tools, software that functions is more important than complete documentation, collaboration with clients is more important than contract negotiations, and responsiveness to change is more important than following the plan [15].

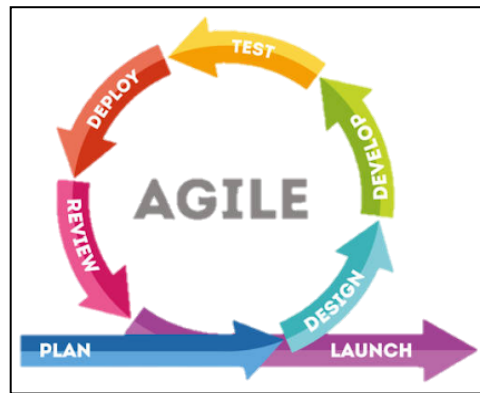


Figure 3. Agile Method

Steps in developing the system using the agile method consists of planning the schematic of the activity plan and the system development schedule and the target which is then made in the form of a system interface design and then carried out the stages of system development tailored to the agreed custom request [16]. After completing the system development, it is tested to use a system that has been developed in stages. The test results are then distributed to users and then a review or discussion is obtained until the final stage of the system is launched [17].

3.3 Methods gamification in the System

Steps in developing the system using the agile method consists of planning the schematic of the activity plan and the system development schedule and the target which is then made in the form of a system interface design and then carried out the stages of system development tailored to the agreed custom request. After completing the system development, it is tested to use a system that has been developed in stages [18].

The test results are then distributed to users and then a review or discussion is obtained until the final stage of the system is launched gamification is the use of techniques designed like a game, in order to motivate / pull someone related to their use, gamification works with technology function more interesting, encouraging users to engage in desired behaviors such as missions, collect points to earn vouchers, rewards and so on [19].

Then embedded in a website-based e-commerce as a form of buying and selling transactions by utilizing internet technology that connects companies, consumers and the public and transfers funds and exchanges electronic data, management systems and data collection automatically [20]. In applying this method of e-commerce gamification, the Level technique is applied from various techniques including Badges"or"title", Levels, Progress bars, Leaderboards, Virtual Currency, Gifting, awarding, redeeming, trading, where each user gets a level or the ranking of the products purchased, of course, each level has its own features that make users interested in upgrading each level [21].

4. Editorial Policy

The submitting author is responsible for obtaining an agreement of all coauthors and any consent required from sponsors before submitting a paper. It is the obligation of the authors to cite relevant prior work [22].

5. Results and Discussion

In this study the authors used “Simple Random Sampling” in determining the trust survey of the website. The authors used the Slovin formula as follows :

$$n = \frac{N}{(1 + Ne^2)}$$

$$n = \frac{1565}{(1 + 15.65)}$$

$$n = \frac{1565}{16.65}$$

$n = 93,99\%$ (rounded up to 94 Responden)

From the population sampling formula of the total population (N = 1565 respondents) produces a minimum sample of 94 respondents who remember this method [23].

.After getting the survey results from the Slovin formula, then testing is done with the reliability test with Cronbach alpha as follows :

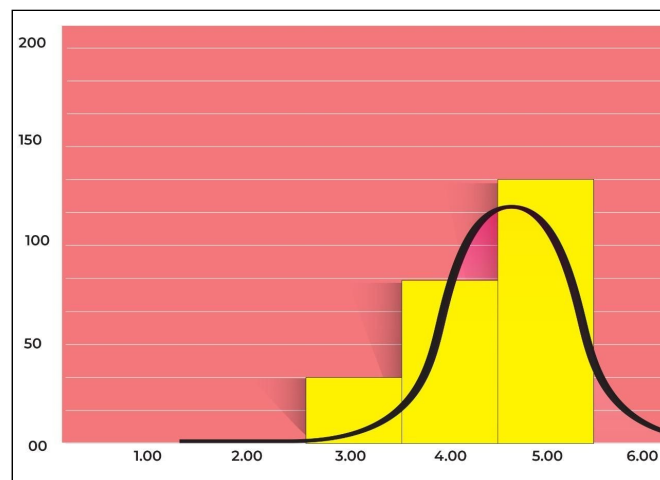


Figure 4. Histogram Cronbach Alpha

Based on the (figure 3), Histogram chart has the mean 4.58, with deviation 0,63 of 210 responden. The case process can be described in the following table.

Table 1. Case Data

	N	%
Cases	210	100,0
Valid	0	0
Except Total	210	100,0

Table 2. Reliability Statistic

Cronbach's Alpha	N of Item
0.925	25

This research proves that Pandawan has provided a rhyming service to its users so that it can increase transaction satisfaction. With the results of the calculation of 210 respondents, the reliability test output α is known that Cronbach's Alpha is $0.925 > 0.6$. Then the research instrument is declared reliable [24]. Pandawan is an innovation of an e-commerce platform that provides online journal publisher services as a substitute for a conventionally managed publisher [25].

The implementation of the Open Journal System (OJS) of the PKP (Public Knowledge Project) as a basis is able to provide convenience, speed, and integrity in managing journals [26]. In the initial appearance of Pandawan there are 5 main menus namely About, My Account, Success Stories, Checkout and also Cart. Pandawan's website can be accessed via <https://pandawan.id/>. In the About menu there is a brief description of Pandawan, Vision, Mission and Purpose. And in the My Account menu there is a FAQ facility that can help website visitors know the ways needed in Pandawan such as, How to conduct transactions, how to fill in the registration form, payment methods available and so on [27][28].

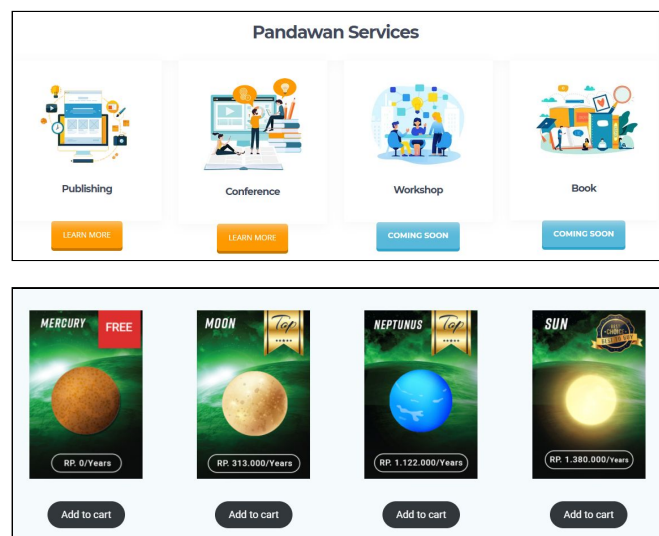


Figure 6. Packages provided by Pandawan

The picture above explained that the Pandawan publisher service has 4 excellent packages, ranging from the free to various ones with specifications that have their respective features [29][30].

Thank you. Your order has been received.

ORDER NUMBER	DATE	EMAIL	TOTAL	PAYMENT METHOD
1124	September 2, 2019	aulia.edliyanti@raharja.info	Rp313,000.00	Pay with Midtrans

Order details		Customer details	
Product	Total	Email:	aulia.edliyanti@raharja.info
Moon x 1	Rp313,000.00	Phone:	0812373467
Subtotal:	Rp313,000.00	Billing address	aulia edliyanti
Payment method:	Pay with Midtrans	Payment Info	
Total:	Rp313,000.00	Payment Page	https://app.midtrans.com/snap/v2/vtweb/2bef0209-50b1-4659-9a77-6b6936ac7eb

Figure 7. Display of Pandawan checkout results

From the picture above it is explained that the final process of the transaction at Pandawan will be as shown above. Where divided into 2 (two), namely Order Details and Customer details [31][32].

4. Conclusion

This paper describes the research of an e-commerce platform that provides journal publisher services with the gamification method to support the world of creative economy that can make a major contribution to improving the national economy. There are still very few specialized e-commerce platforms that provide online-based journal management services at competitive prices. Into a new transformation that was originally conventional to digitization. In the author's view, the gamification-based e-commerce platform makes it easier for educational institutions who have difficulty publishing journals [33][34].

In the discussion of this study, the authors have not been able to determine the most appropriate gamification element used in an e-commerce platform that provides journal publisher services and the ability to compete in the world of creative economy globally. Apart from these shortcomings the application of gamification can be used as more value to market the platform into the global market with the concept of including game elements in a non-games platform. The author cannot claim that gamification is the most appropriate way, but can be used as a reference in further research [35].

The application of gamification in e-commerce today is not stopped only for research needs. But on the contrary, the next step that can be done is to make adjustments and evaluations about which elements of gamification are most suitable to be applied in e-commerce websites in terms of the needs of its users which are expected to increase user loyalty in transactions [36][37].

5. Appendix

Appendixes, if needed, appear before the acknowledgment.

6. Acknowledgement

The preferred spelling of the word "acknowledgment" in American English is without an "e" after the "g." Use the singular heading even if you have many acknowledgments. Avoid expressions such as "One of us (SBA) would like to thank ..." Instead, write "FA Author thanks ..." Sponsor and financial support acknowledgments are placed in the unnumbered footnotes on the first page.

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