Architecture and Design International Conference
Volume 2021

A D B E
Conference Series
Art, Design, and Built Environment Conference Series

Conference Paper

Implementation of Research Results as Collaboration with Stakeholders in the Era of the COVID-19 Pandemic

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ABSTRACT

Research is an essential part of education for Lecturers or Teachers. Research schemes usually refer to results used by the public, or theoretically based research, to support the novelty of other research. In a research model with output results, the current pandemic will significantly impact the community's applied research. Utilizing research results in collaboration with stakeholders will provide benchmarks and collaboration between lecturers and the industrial world. This research is derived from previous research with the theme of the folklore "Sarip Tambak Oso." This research is a descriptive research model that can be developed into further research. The data collection methods in this research are in-depth interviews and product manufacturing tests by the industry. To collect data regularly, this research will involve stakeholders of PT GRD Indonesia based on creative industries as research partners.

Keywords : applied research, intellectual property, visual, creative industry

Introduction

Indonesia is experiencing Covid 19, which the government set in 2020. Until now, Covid-19 is still a concern of the government. Some sectors that have a severe impact are the SMES sector (Soleha, 2020). In Indonesia, the SMES sector (Small and Medium Enterprises) covers the food production industry to the service industry, one of which is the creative industry (Chaerani et al., 2020). According to Jawa Pos media data on September 21, 2021, the service sector is among those affected by Covid-19. As a university with a philosophy of "Defending the State," the UPN Veteran Jawa Timurcampus sees the problems present as having tactical solutions. Finally, from 2020 to 2021, the LPPM (Research Center) of the UPN Veteran Jawa Timur(UPNVJT) campus made a series of research activities to be developed and applied to partners or communities affected by COVID-19.

In 2020, the folklore research "Sarip Tambak Oso" was carried out with photographic techniques; in 2020, this folklore produced a pattern of folklore lost during modern society. In 2020 the visible results in this study already had IPR (Intellectual Property Rights) to protect the research results. Like research in general which is based on ideas, ideas, and visible results, this folklore research requires a tactical application. The goal is to be able to support the sustainability of the research itself. This means that the results in this study can develop into intellectual Property, which can be developed into the service sector, one of which is the creative industry (Aristodemou & Tietze, 2018).

The meaning of Intellectual Property (IP) is the application of Intellectual Property resulting from creative processing in images or other visuals (Fehder et al. l, 2014: 03). Intellectual Property is abbreviated as IP, and it has a significant market value. In fact, in 2016, Japan and Indonesia made a special relationship to discuss Intellectual Property because there is a market for Japanese anime character products in Indonesia (Kemenhum RI_Online). Intellectual Property has also been able to create and grow the creative industry in many ways; one of the most successful action figures in the market is the Gundala Putra Peter film, an illustrated work by Ganes TH which was re-filmed by film director Joko Anwar. The progress of this intellectual property, as discussed

above, will undoubtedly revive several creative industries, one of which is the 3D modeling service industry, 3D printing production, and the textile industry (Li et al., 2014:03).

Figure 1. Produced by PT GRD (Headset Packaging)

Meanwhile, to apply Intellectual Property to the creative industry, relevant partners are needed. Therefore, the SMES partner subject of this research is PT Global Rajawali Dwiguna (PT GRD). PT GRD is a company with a background in 3D Printing, 3D modeling, and the visual industry. The research team chose the results of observations in the company's field because they include creative industries that are directly affected by COVID-19. In addition, another consideration is that the location of the workshop and PT GRD's office is located close to the UPNVJT campus; this certainly makes it easier for the research team to discuss each other during the pandemic when the city of Surabaya is locked down. The need for selecting the right partners, because the development of this work requires commensurate and relevant partners to develop business prospects and the production sector (Lin & Wang 2019:720).

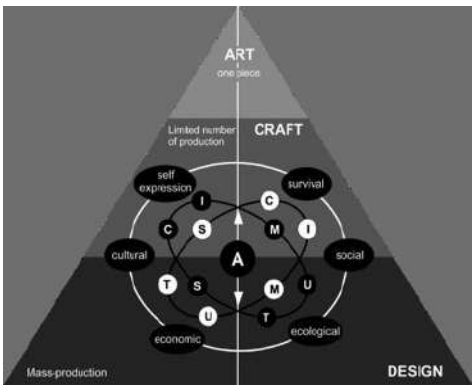


Figure 2. ATUMICS Theory

To support the development of this research, of course, it is necessary to create an integrated sustainability product (Kotler and Armstrong, 2014: 249). According to Kotler and Armstrong, the sustainability of the product in the modern era must impact the scope of novelty (2014:516) as stated by Nugraha in the book "Transforming Tradition" "If local products can survive in the progress of the times by always developing" (2012:30). This means that the folklore "Sarip Tambak Oso" in the previous research should also develop into other products. This study aims to analyze the results of collaboration between institutions and industry, what projections can be used as a measure of cooperation during the COVID-19 period. The approach taken is by direct field trials and joint analysis with various parties involved, one of which is PT GRD.

Research Methods

In applied research, this research method will use the approach (Wibisono, 2020), (1) Observation in the field, and the tools to be used. They will discuss with partners during the observation activities and test it to the public through general discussions with audiences from the community, students, and other SMES. The purpose of this observation is to provide a brief description of the technology being collaborated so that the role of technology on campus can be helpful in the community and other SMES. (2) The second approach used in this research is technology testing. This trial is essential because the technology owned must be tested whether

the material is suitable and the stages in work from visual to industrial. (3) The last is measuring technology readiness together with partners. The method used in this analysis uses the Katsinov method, with six measurement scales on the results and how sustainable the technology is after in collaboration with partners.

Results and Discussion

Visual Trial to Manufacturing

The process in this research is essential to be carried out between the campus and partners to produce an understanding. The process of carrying out this trial is also looking at the production process that will involve partners so that the research team knows the process and speed in carrying out step by step from ordering to production. This means that in this process, the research team can see and provide solutions directly to this ongoing process so that they are ready to sell to online stores (Harris in Fauzi, 2018). The online store was chosen due to the convenience that appears in technology-based applications, namely the emergence of online stores such as Tokopedia, Shope, BukaLapak, which can increase people's purchasing power online.

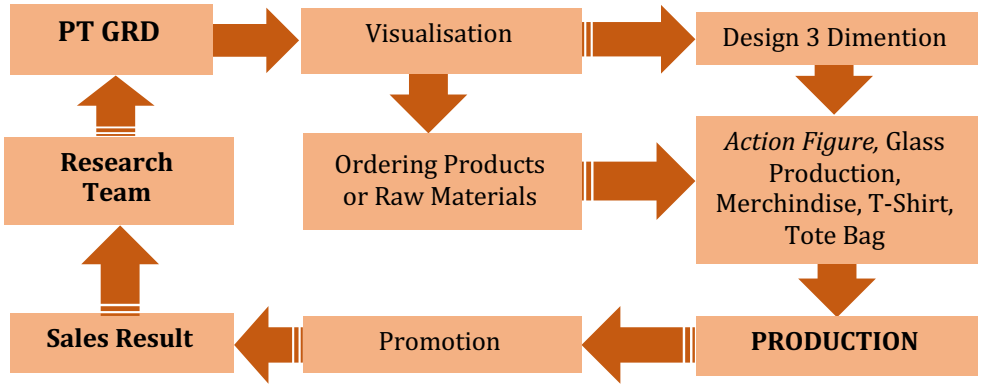


Figure 3. Design, Production and Sales Flow

The products tested are the results of research in the form of visual photography to ready-to-sell products. The product is a visual depiction of Sarip Tambak Oso's character, which is transformed into Mug, Clothes, Merchandise. The process of visual testing to manufacturing requires production tools and supporting 3D software. Therefore, the purchase of raw materials needs to be seen whether it is suitable and following the research product.

Technology Test to Public

This research, as described in the initial chapter, has the aim of utilizing research results to partners or the community. This utilization, of course, requires a method of mutual discussion with the community and the campus to determine what factors are considered necessary to be redeveloped. The parties invited to this technology test are students, lecturers, and the people of Tambak Oso. The Tambak Oso community was involved because the 2020 research process was carried out at that location; therefore, criticism and suggestions would certainly provide a deepening of the conclusions in the study. The topic of discussion is the application of photography to an intellectual property designed and implemented with partners. In this discussion, partners were also present to give presentations to the audience who were present online. The online concept itself is also an option in the communication process because this communication is often done during the discussion process with partners

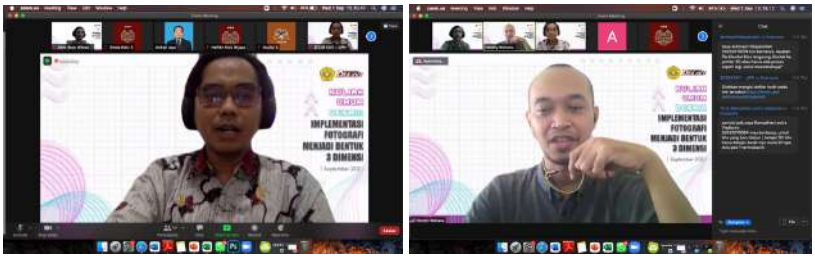


Figure 4. Submission of Technology Test to the Public

According to Nowland, intellectual property products need to be discussed with the public or users of technology or products (2015). The goal, of course, is to optimize the results of technology directly because, in the process of delivering this discussion, the process will be shown through videos so that the audience criticizes the process and its products. In the process of testing technology to the public, the Copyright process in this study is also mentioned so that the audience understands if intellectual property arises from ideas and thoughts that are not simple, namely through a continuous research process. This needs to be informed to the audience so that this discussion process is not considered a short process by the audience.

Figure 5. Visual Process of Photography to Manufacturing

The process tested in this applied research is the object of photography of the character "Sarip Tambak Oso." The Sarip Tambak Oso character is then visually sketched before being implemented into the manufacturing process. Then after the sketch is done, the next process is editing through 3 Dimensional Blender and Adobe Illustrator software. In the process of making character mugs, the next process is manufacturing through 3 D printing. The trial of this manufacture at least performs the printing process for five trials so that the size and negative of the product before entering manufacturing are fixed.

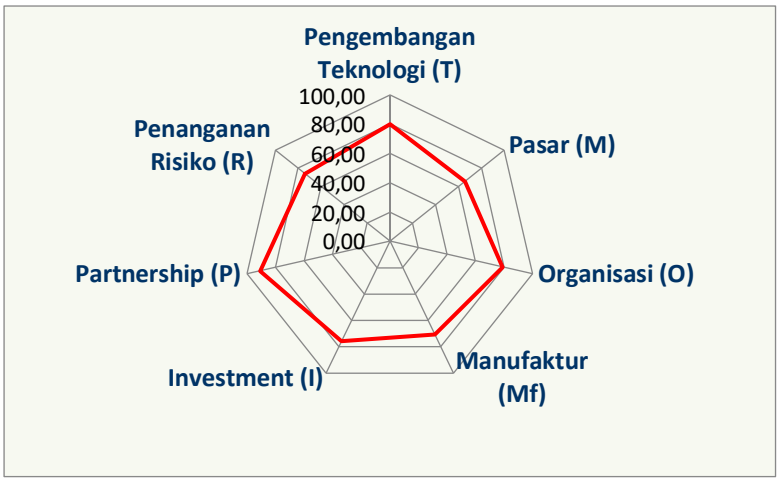
Figure 6. Software process to manufacturing process

Figure 7. Production print

Unlike the character mug manufacturing process, the production of t-shirts and tote bags is simpler, namely using graphics to software and then printing them directly. This process is done by a screen printing process. The selected materials are Kombeed cotton (for t-shirts) and canvas (for tote bags). Each production between character mugs, t-shirts, tote bags, and other merchandise will be sold in one package at a lower price than buying the units. This process is a sales strategy in the plan later; therefore, it is necessary to make a plan that is profitable for partners and campuses in its implementation.

Katsinov Methods Analysis

The final process in this applied research measures the level of technological readiness using the Katsinov method. The analysis obtained is as follows,



*Pengembangan Teknologi (Technology Development); Pasar (Market) ; Organisasi (Organization) ; Manufaktur (Manufacturing) ; Investment (Investment) ; Partnership (Partnership) ; Penanganan Resiko (Risk Management)

Figure 8. Analysis Katsinov Method

Our market with Katsinov method analytical score is 55; organizational scores on partners and institutions reached a score of 80; owned manufacturing score is 75; the investment score on the product is 78; the partnership score between PT GRD partners and the UPNVJT research team reached the highest score of 95; risk treatment score was 79, and the last technology development score is 80. The conclusion using the Katsinov method with six method tests is ranked third (completion), which means that the technology level is mature and all of its technological functions have been tested in the field. However, it is not yet at the fourth stage (chasm), which is entering the market introduction to customer demand.

Bussines Mapping Production

In the above analysis, it is necessary to plan a business planning process that includes key partners, key activities, values proposition, customer relationships, segmentation, essential resources, channels, cost structure, revenue streams. The explanation in the table is as follows,

Table 1. Bussines Canvas Model

<table>
<tr><th colspan="5">BUSINESS CANVAS RESEARCH TEAM AND PT GRD</th></tr>
<tr><td rowspan="2">Key Partners

Assosiation Children Toy - SNI

Supplier

Partner of PT GRD

UPN Veteran Jatim

Community</td><td>Key Activities

Visualizer 3D

Printing Product

Design</td><td rowspan="2">Values Propotion

SMEs engaged in the Creative Industry

The product has passed the design stage and is ready for production.

Have a HKI (copyright) for Product design</td><td>Customer Relationship

Media sosial Instagram, Facebook, Whatss App</td><td rowspan="2">Segmentation

Employees who like to collect (28-35 Age)

Employees PNS/corporate employees (28-35 Age)

Adults and already working (25 – 30 Age)</td></tr>
<tr><td>Key Resources

Ability to process software and estimate production as a mid-level creative industry (SMES)</td><td>Channels

Social Media Marketing

Shoope, Tokopedia, Buka Lapak</td></tr>
<tr><td colspan="3">Cost Structure
New Employee, Basic material supplier, Buying equipment production</td><td colspan="2">Revenue streams
Profits from selling mass products
Ordering products by customers via online</td></tr>
</table>

Conclusion

The conclusion in this applied research looks at the results of the analysis of the Katsinov method, which is categorized into three clusters. This means that the level of technology readiness has indeed been tested well, but there has been no test for buyers or segmentation. This is due to several things, one of which is the slow process of transformation from the production process to the sales stage due to factors affected by COVID-19, one of which is that some employees are exposed to the virus so that production reduces the number of temporary employees. However, the visual process and applied to production did not have any obstacles. This shows that the actual production process is not constrained on the scale of SMES in the creative industry, but the obstacle is the "X" factor, namely the sudden a high number of COVID-19 pandemics in the city of Surabaya. In the future, a comprehensive and optimal vaccine process is needed so that the process from production to sales is not hampered. Until this article is written, the sales process will enter the preparation for the segmentation test.

Acknowledgment

This research is the result of funding from LPPM UPNVJT through the 2021 BIMA scheme. We are all research teams and partners of PT. GRD expresses its deepest gratitude to LPPM for supporting us with funding this research. Then we also say a big thank you to the DKV Study Program Lecturers who were involved in the previous research.

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