INNOVATION PROCESSES IN NEW PRODUCT DEVELOPMENT: MODELS FOR CREATIVE INDUSTRY IN INDONESIA

Tommy Christian Efrata  
Wirawan E. D Radianto  
Maria A. E. Marlina  
Shinta K. Dewi  
Universitas Ciputra, Indonesia

Abstract: The growth of service companies in the scope of the creative industries has grown a lot in this decade. However, not much research has explored the innovation process that is key to business sustainability. This study builds the model of the innovation process performed by selected service companies within the creative industry. It investigates some processes of new product development (NPD) of service products of the firms. An interview was conducted on the companies’ owners or directors with sufficient knowledge of the innovation process implemented in each company. Data were processed using a qualitative method approach with the help of the NVIVO program. The outcome revealed similarities in the innovation process of NPD among companies, specifically in the stages of identifying problems and opportunities, generating and processing ideas, market predictions, business analysis, visualization, and execution, representing the model in service companies. This research outcome would benefit business practitioners and scholars to better comprehend the NPD process in service companies within the creative industries.

Keywords: Innovation Process, New Product Development, Creative Industry, Industrial Innovation Process, Service Company.

Cite this article as: Efrata, Tommy Christian, Wirawan E. D Radianto, Maria A. E. Marlina, and Shinta K. Dewi. 2020. Innovation Processes in New Product Development: Models for Creative Industry in Indonesia. Jurnal Aplikasi Manajemen, Volume 18, Number 3, Pages 487–493. Malang: Universitas Brawijaya. http://dx.doi.org/10.21776/ub.jam.2020.018.03.08

Vigorous competition in business makes ideas, creativity, and knowledge of valuable assets for companies (Istifadah and Tjaraka 2017). To effectively cope with competition, companies need superiority and continuous innovation. Proficiency in adapting to rapid changes in all aspects, including marketing, production, human resource management, and operations is critical. Moreover, company excellence is also required to handle the competition successfully. Innovation is one of the best ways of achieving excellence. Innovation is an instrument of entrepreneurship that involves building and generating creative value in a business. The company’s market share can be improved through corporate innovation, which is the result of a changing process to produce something new, different, and valuable for users (Harefa and
It can be applied in goods, services, and methods (Eich, 2014). A company always requires its employees to create something new and useful. Companies solve problems, seize opportunities, make rapid progress, be more creative and effective at work, develop new products, and generate new income through innovation. Companies need to adjust to rapid changes to remain relevant and avoid getting outdated. This helps attract customers to use products and services offered.

Indonesia’s Global Innovation Index has increased in the last two years, from rank 97 in 2015 to 88 and 87 in 2016 and 2017 (Cornell University, 2017). Each year, the Global Innovation Index issues the ranks of the countries, measures the results, and determines the nature of an innovative environment. In 2017, Indonesian rank was far below neighboring countries, with Malaysia and Singapore ranking 37th and 7th, respectively. This shows that Indonesia lags in triggering domestic innovation. Developing new ideas successfully requires an accurate understanding of the steps involved, including the likely challenges.

For an innovation to be successful and useful, a due process is followed (Eich, 2014). Companies need to understand this process, which involves creativity, development, further refinement, and application of ideas to solve a problem. The process is perceived as a linear sequence flow of stages (Utterback, 1971; Cooper, 2008). However, some scholars do not agree with the description as a one-size-fits-all process (Kok and Biemans, 2009; Salerno et al., 2015). For instance, Salerno et al. (2015) stated that no one approach to the innovation process fits various product development or management projects.

Innovation plays a critical role in the sustainability of the creative industry, one of the most innovative economic sectors. This assertion is proved by the increasing number of entirely new products offered to customers. Producing something that has an element of novelty requires creativity, and understanding the process involved is vital. The process not only focuses on the result but involves all the activities required, such as market planning, processes, systems, sales, and interrelated technology (Safsten et al., 2014). This study identifies the process of innovation in the creative industries in Indonesia.

**Innovation Process**

Utterback (1971) defines the innovation process as a single course with several stages: idea generation, problem-solving, implementation, and diffusion. It is a cyclical and continuous process with a series of activities, ranging from knowing to applying innovation (Chandra & Haryadi, 2016). The process can also be defined as a tool showing the direction or mindset, starting from the idea stage to product launching in the market. The use of the innovation process model does not guarantee success but increases the chances of success. Studies on this subject raise several models that illustrate the stages involved. According to Cooper (2008), new product development is a step-by-step flow process occurring linearly. The stages involved include idea generation, selection, development, and market launching. Eich (2014) established seven steps to developing creative ideas, that are identifying problems and opportunities, formulating questions, generate ideas, analysis and synthesis of ideas, developing concepts, testing the concept, and communicating proven concepts. This is in line with Chandra and Haryadi (2016), which stated several stages in innovation, that are the appearance of ideas, screening of ideas, concept testing, business analysis, product development, market testing, commercialization, supervision, and evaluation.

Ottenbacher and Harrington (2009) described the product innovation process in fast-food restaurants, which include category strategy or looking for opportunities and trends in demand, idea generation by seeking inspiration from various sources, the screening I or financial and operational considerations, concept test by investigating what is desired or the potential for consumers, screening II by determining consumers’ desire and purchase intention towards the new food concept, prototype, Screening III or ensuring supply availability, product safety, and other risk evaluations, screening IV by reconsidering the concept compared to competitors in financial and brand aspects, market test or
try out product concepts and marketing plans to verify prices and understand consumer intentions, launching the results of innovation to the market, and evaluation to determine the product’s success from the innovation and analyze the performance related to finance, sales, operations, and customer satisfaction.

Salerno et al. (2015) proved the existence of these different stages, which offered a taxonomy of 8 innovation processes depending on the particular contingency project. Apart from the technical stages, support from the environment for the initiative to be part of the company’s culture. According to Sunarto and Arifin (2014), innovation grows in a corporate environment through three stages. Three stages are awareness, where individuals need to be aware that they need change for a better future, organizing ideas, desires, and input from various sources appropriately. Ideas can be realized in other useful works. The opportunity to deliver and realize the idea should be facilitated, and persuasion, where the environment, coworkers, and superiors are persuaded to support useful creations and end up being innovative. Innovation cannot be forced because it requires calm, support, and a supportive environment.

METHOD

The objective of this study is to identify the configuration of the innovation process performed in service companies. It uses descriptive qualitative methods to explore the process with a multiple case study approach. The study subjects include companies involved in creative industries and have innovative products or services. The company should be in good condition, a state determined by the profit recorded for 3 years. They should have been in operation for at least 5 years and be superior compared to similar businesses in the same industry.

The analysis unit of this research is the innovation process of new product development. A total of 3 companies with national marketing extension are the objects of this research. Each company is engaged in calligraphy and design, as well as event production and organizer.

The technique of collecting information is conducted face-to-face in semi-structured interviews to obtain more profound data. The informants in this study are the founders and business owners with adequate knowledge of innovation. The data obtained were analyzed through a coding process using the NVIVO program.

New Product Development Process in Service Companies

According to informants, innovation can be implemented by a company that needs to be more developed. Even the existing products can be reinvented with value-added. It is an applicable concept related to a new thing. This means a new idea that cannot be applied in a company is in vain.

![Figure 1  Innovation Process in Company X](image)
Innovation is accomplished by looking at the needs and problems surrounded. From these needs, the informant gathers ideas and innovate to suffice client requests. Attempting to continue learning and unafraid to try new things is imperative in innovation.

The innovation process in Company X in Figure 1 begins with business analysis. This process includes the financial planning of each division and event preparation. It is carried out before generating an idea due to the possible similarity of the execution concepts between ideas. It should be arranged from the beginning to be readily offered to clients as well as to accelerate the processing and execution. The next stage is ideation, which involves identifying problems and opportunities and seeing the company’s potential to develop and execute them. The ideas are generated from observing the lack of competitors or looking for new ones. Necessarily, the evaluation of previous innovations can be a source for generating ideas. Market prediction is accomplished to determine the impact of the previous product on consumers. Processing ideas can also be conducted based on the client’s demand by looking at market conditions previously observed. This stage enables identification of problems and opportunities, generating and processing ideas, and market predictions simultaneously or returning to the previous stage, as illustrated by the orange arrow. Business analysis is adjusted to the existing ideas to match those generated, as indicated by the red arrow. The last process of the ideation stage is execution. In case the resulting idea can be accepted by the market and allows it to be accomplished, it is immediately executed. This stage involves the visualization process, where the idea is made into an image that can be easily understood and interesting for consumers. Also, an overview is shown, which can be present during the execution. The final stage in the innovation process is evaluation, which is performed after the innovation is applied to examine the results.

These stages can take place flexibly through several stages that can be done together in a brainstorming day. Stages of business analysis can also be adjusted to the ideas generating process later. It is also possible to return to the previous stage where necessary.

Figure 2 shows the innovation process carried out by Company Y. The process begins with the Ideation process, which consists of the identification of problems and opportunities in the market; generating ideas derived from hobbies, learning from competitors and clients, browsing, and understanding consumer needs; processing ideas by looking at trends, adding value to previous innovations, and adjusting to client requests; and making market predictions. It is vital to do business analysis before a new product is launched. The analysis includes a survey of raw materials and financial budgeting.
Innovation Processes in New Product Development: Models for Creative Industry in Indonesia

based on the company conditions for maximum results and preparation. Once the idea is ready to be executed, it is visualized. This stage allows inter-process to be conducted together or returned to the previous process where necessary, as indicated by the orange arrow (flexible). The next stage of the innovation process is product visualization. This stage is carried out to create a portfolio for the clients to have a picture of the products owned by the company. The results of the visualization go to the next stage, which is execution. At this stage, an innovative product prepared by the company is launched.

Figure 3 shows the innovation process in Company Z. The process begins with an idea consisting of Identification of problems and opportunities, Generating ideas by looking at trends, discussing with teams, and finding solutions to problems found, Processing ideas by combining several ideas into one and arranged into interesting concepts, Making market predictions to determine the potential ideas found, and Analyze business by preparing to budget, determining target markets, and determining sponsorship. Business analysis is needed to prepare the execution for everything to work optimally and as planned. In the case of the market prediction and business analysis stages, the idea is impossible to run; it can return to the ideation stage, as shown by the red arrow. Otherwise, it proceeds directly to the execution process, which is conducted based on all company considerations. In execution, there is a visualization process where the idea is made into an image that can be easily understood and be appealing to consumers. Additionally, an overview is shown, which will be present on the day of the execution of the idea. The final stage is the evaluation to determine the results of innovations conducted for a better future.

In general, the similarity of stages in the innovation process is seen in all three research objects. However, the analysis results show differences in the process, including Business Analysis Process,
which is carried out at an early stage in concept innovation because it provides offers to clients. Ideas to be applied later can be adjusted to the analysis conducted at the beginning. However, business analysis can also be flexible to make changes where necessary. Visualization, which involves making a portfolio to be more trusted by clients based on the product picture. The portfolio results are only examples of products that can be produced. This stage involves describing ideas during the execution day.

The innovation process in the three new product development projects in each company is identical to the results of Chandra and Hariyadi (2016). The difference lies in the four stages of the process. The first stage involves identifying problems and opportunities by looking at the circumstances, consumer needs, and problems faced by consumers. This is in line with Eich (2014), where identifying problems or opportunities involves looking at what is around and opportunities that exist. Moreover, extensive insight is needed to view the problem as an idea. Feedback from other parties is also needed for the problem, not to become a subjective problem. Understanding the problems people face and the challenges they have to solve also help analyze an opportunity to be developed.

The second difference is in the stages of processing ideas, including giving added value to what has already existed, combining several ideas to make them varied and developed to be useful and applicable. The stages of processing ideas are followed by developing a concept (Eich, 2014).

The third stage is market prediction, which involves estimating whether consumers can accept the idea to be launched without seeing them directly. This in line with Ottenbacher and Harrington (2009), where companies investigate what consumers want and estimate whether the product is potential. However, in this model, interactions with consumers still existed. The consumer looks directly at the concept and respond, while this study does not focus on consumer response. According to Chandra and Hariyadi (2016), market testing involves examining consumer responses when looking at the prototype, which is incompatible with the results of this study. At product visualization, there is a promotional medium to attract consumers. This stage involves describing an idea into a product to be easily understood by consumers.

CONCLUSION

The implementation of the innovation process in companies in the creative industries can differ
Innovation Processes in New Product Development: Models for Creative Industry in Indonesia

depending on the conditions of each business. However, each service company performs the stages of the innovation process, including the identification of problems and opportunities, generating and processing ideas, market predictions, business analysis, visualization, and execution. Not all stages of the process should be carried out sequentially. In certain conditions, these stages can be conducted simultaneously or flexibly based on company conditions.

This study shows that the process of innovation is interrelated. The process is always demanded and happens in every company to compete in the market. It increases the chances of innovation success since there are preparations to minimize the risk of failure in the execution stage.

Acknowledgment

This research is funded by the Directorate of Research and Community Services, Directorate General of Strengthening for Research and Development, Ministry of Education and Culture, Republic of Indonesia.

REFERENCES

Chandra, G., and Haryadi, B. 2016. Proses Inovasi Produk pada PT Mekar Usaha Nasional. AGORA Vol. 4, No. 2.
Cooper, R. G. 2008. Perspective: The Stage Gate® idea to launch process—Update, what’s new, and NexGen systems. Journal of Product Innovation Management, 25(3), 213-232.
Cornell University, INSEAD, and WIPO. 2017. The Global Innovation Index 2017: Innovation Feeding the World, Ithaca, Fontainebleau, and Geneva.
Eich, D. J. 2014. Innovation Step by Step: How to Create and Develop Ideas for Your Challenge. Createspace Independent Pub.
Harefa, A., and Siadari, E. E. 2013. The Ciputra Way. Jakarta: PT Elex Media Komputindo.
Istifadah, N., and Tjaraka, H. 2017. Kreativitas dan Inovasi pada Industri Kreatif untuk Meningkatkan Daya Saing dan Kesinambungan Pertumbuhan Ekonomi. In Proceeding: Conference on Management and Behavioral Studies Universitas Tarumanagara, pp. 89-99, ISSN 2541-3406.
Kok, R. A., and Biemans, W. G. 2009. Creating a market-oriented product innovation process: a contingency approach. Technovation, 29(8), 517-526.
Ottenbacher, M. C., and Harrington, R. J. 2009. The Product Innovation Process of Quick-Service Restaurant Chains. International Journal of Contemporary Hospitality Management, Vol. 21 No. 5, pp. 523-541.
Safsten, K., Johansson, G., Lakemond, N., and Magnusson, T. 2014. Interface Challenges and Managerial Issues in The Industrial Innovation Process. Journal of Manufacturing Technology Management, 218-239.
Salerno, M. S., de Vasconcelos Gomes, L. A., da Silva, D. O., Bagno, R. B., and Freitas, S. L. T. U. 2015. Innovation processes: Which process for which project?. Technovation, 35, 59-70.
Sunarto, S. B., and Arifin, S. 2014. Inovator Pendobrak Perubahan. Jakarta: PT Elex Media Komputindo.
Utterback, J. M. 1971. The process of technological innovation within the firm. Academy of Management Journal, 14(1), 75-88.