Preliminary Comparative Study of Innovation Process Model for Startup in Indonesia

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Abstract. The startup is the catalyst that transforms ideas into products. Innovation is widely recognized as an essential enabler of a competitive startup, organizational, academic, and enterprise to survive and thrive. However, many innovation initiatives do not generate satisfactory profit or competitive advantage. The problem does not rest in the invention part or the generation of innovative ideas, but more in the profitable management of the innovation process from an approach to a successful product in the market. This paper puts forward a comparative study of customer-oriented innovation process model Blank, Ries, and Maurya. This paper queries the most appropriate model and best fit with startups samples, and looking for rational reasons to do further research to obtain the innovation process model that more appropriate and specific to startups. This research used an explanatory sequential research design in which qualitative and quantitative studies. These data were gathered from 5 startups in Indonesia through FGD, interviews, and observations. Substantial evidence supports that model Maurya is the most appropriate model and best fit with these startups and additional research is needed to formulate a new model that fully supports creative ecosystem industry in Indonesia.

1. Introduction

Innovation is defined as the invention of new products, processes, knowledge or services which provide a degree of novelty either to the developer, the industrial sector, the nation or the world and succeeds in the marketplace. Innovation is widely recognized as an indispensable competitive enabler by organization, academic, and company to survive and grow [1].

Startup's customer development model begins with a simple premise: learn and find out who will be targeted as early customers, and where the segment is them on the market, is a separate and distinct process from product development. The activities were then called as customer development. Most beginners do not have the startup process to find a market, find the first customer, validate their assumptions, and develop its business.

While some of that success is that it managed to do all things. The difference is perhaps that the fortunate people who managed to create a model of customer development [2]. In essence, the startup is the catalyst that transforms ideas into products. When customers interact with the product, they generate feedback and data.

Qualitative feedback (like what they like and do not like) and quantitative (such as how many people use it and find it worthwhile). Lean startup method can be used to build companies with capital-efficient because it allows startups that avoid wasteful of time and money [3].
The classic product-centric approach allocates customer involvement during the requirements-gathering phase but leaves the customer validation until after the software is released. There is a delay when the startup disengages from customers for weeks or months while they build and test their solution. During this time, it's entirely possible for the startup to either create too much or be led astray from making what customers want [4].

However, although most enterprises fully realize the importance of innovation and they continue to spend more and more on innovation, many of these initiatives do not generate satisfactory profit or competitive advantage. The problem does not lie in the invention part or the generation of innovative ideas, but more in the profitable management of the innovation process from an idea to a successful product in the market [5-11].

This paper puts forward a comparative study of three customer-oriented innovation process models, best known today, which is a model of innovation process Blank, Ries, and Maurya. This study aims to answer the following research questions:

- What is an appropriate model and best fit from the three models with startups in Indonesia, and
- Is it necessary to do further research to obtain the innovation process model that more appropriate and specific to startup in Indonesia?

2. Method and Data

2.1. Method
This research used an explanatory sequential research design in which qualitative and quantitative studies conducted using the model explanations. Interpretation and analysis of data obtained through the union to get models of the innovation process.

This research conducted two different research phases: quantitative followed by qualitative [12] as illustrated in Figure 1.

![Figure 1. Research Design of Explanatory Sequential Mixed Method](image)

2.2. Data
Sources of data and information that have been used in this study were obtained from two sources, namely the direct result of research in the field as the primary data and data already available as secondary data.

The variables that affect the performance of the creative industries that have been measured to analyze the data models of existing innovations [13] and interpret the startup staging model [2] are illustrated in Figure 2.
The data required are the primary and secondary data. These data were gathered through FGD, interviews, and observations. The data sample is taken from the number of startups in several major cities in Indonesia, with a composition as showed in Table 1.

### Table 1. Data Model Comparison.

| No | Phase        | Customer Development | Lean Startup | Running Lean |
|----|--------------|----------------------|--------------|--------------|
| 1  | Ideation     | -                    | -            | -            |
| 2  | Filtering    | Customer discovery   | MVP validation. | -            |
| 3  | Product      | Customer validation  | Product development cycle: build-measure-learn. | Customer development: problem/solution fit (improvement by use Lean Canvas Business Model Generation) |
|    | Development  | Customer creation    | Customer creation | Innovation accounting: Registration rate, acquisition, activation, retention, revenue, referral. |
|    |              | by search execution  |              | Product development: Product market fit by validated learning and pivots. |
|    |              | of business models.  |              | Innovation accounting (acquisition, activation, retention, revenue, referral) |
|    |              | Customer development |              | Engine of growth |
|    |              | by search execution  |              | Engine of growth |
|    |              | of business models.  |              |               |
|    |              | continuous iteration |              |               |
|    |              | and pivots.           |              |               |
|    |              | Use actionable        |              |               |
|    |              | metrics               |              |               |
| 4  | Company      | Company building      | Engine of growth | Engine of growth |
|    | building     |                       |              |               |
| 5  | Grow         | Grow                  | -            | -            |

In interpretation data, the results of quantitative and qualitative research are interpreted and analyzed its impact on business performance of creative industries. This process is necessary to ensure that choose a model that is more appropriate startup innovation to improve the performance of innovative businesses. Also to decide vitally or not, to conduct additional research to obtain the innovation process model that more appropriate and specific to startup.

### 3. Result

The result obtained from FGD process analysis data from the data samples that success collected shown in table 2.
### Table 2. FGD Data Analysis.

| No | Phase                  | Needed by Startup                                                                 | FGD Results                                                                 |
|----|------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1  | Ideation               | Pre-seed capital funding capability sharing academic program community development working space & supporting facilities | 80% respondent need pre-seed capital funding. 100% respondent working space and supporting facilities. |
| 2  | Filtering              | Success Prediction for early stage startup creativity for monetizing measurement   | 100% respondent need success prediction for early stage startup and monetizing measurement. |
| 3  | Product Development    | Costumer validation: Lean canvas business model customer development by problem/solution and delivering Product validation: Product-market fit by validated learning and pivots Business model validation: Innovation accounting using actionable metrics (Acquisition, Activation, Retention, Revenue, Referral) | 30% respondent use lean and 20% use lean startup |
| 4  | Company building       | Market validation: Engine of growth market access to customers                    | 10% use market validation before launch the product                          |
| 5  | Grow                   | Value validation: Venture capital funding                                         | All respondent not implement yes this method                                |

From Table 1 and Table 2 above, it is seen that all of three models not cover ideation stage, even though 80% respondent need pre-seed capital funding and all respondents need working place and supporting facilities. Only customer development model covers the filtering ideation. Unfortunately, no respondent use this model.

### 4. Discussion

In general, the results of research from Table 2 are that these models have a lot of advice about the importance of creative innovation in the IT world. In particular, the average value of Maurya model shows that this model is discussed more fully in business performance and competitive strategy. This model is also equipped with the tools of lean canvas and validation board to prepare a viable plan, customer validation and startup performance measure.

Lean canvas and validation board tools from Maurya can help determine the competitive strategy and measure performance validation process. But both the special tools can be used on stage at the customer validation until validation market. Both tools have not reached the stage of nurturing creativity, creativity selecting, and value validation.

### 5. Conclusion

Substantial evidence from result and discussion supports that Model Maurya is the most appropriate model and best fit (from the three models) with startups in Indonesia. Lean canvas and validation board tools from Maurya can be used at the customer validation stage until validation market only. Because these three models have not been fully supported creative industries and ecosystem management in the creative digital industries that can build a reliable startup, so further research is needed to formulate a new model that can address this issue.

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