

PROPOSED STRATEGY TO CREATE NEW PRODUCTS FOR TECH STARTUPS

Ryan Retdiwalgi¹ Abdul Hamid Batubara²

¹School of Business and Management / Bandung Institute of Technology, Indonesia

ABSTRACT : *The development of technology is currently happening so fast. Similarly, technology companies must quickly make products efficiently and quickly. In this paper the authors propose an efficient strategy in making new products in the field of technology by using 2 methods, namely quantitative to collect information related to community needs and qualitative to test prototypes. From the research we have carried out, the criteria for Internet of Things products that are needed by the community are efficient use of energy, flexibility, security, and good durability. In formulating an efficient strategy, the author proposes to initiate a strategy for market research so that the product when it is started to be made is close to or in accordance with the needs and then conducts testing with several experts so that the product created becomes a product that is of good quality and meets market needs.*

KEYWORDS: *Technology, Internet of Things, New Product Manufacture*

I. INTRODUCTION

The development of technology is currently happening so fast. Similarly, technology companies must quickly make products efficiently and quickly. Since its release in 2018 by the Indonesian government, the Internet of Things (IoT) has become a new phenomenon in the national industrial revolution. The industrial revolution 4.0 signifies a systematic change in human life, especially the Indonesian industry which is driven by the convergence of digital innovation and human life. Automation is an innovation that reduces repetitive activities leading to time and energy efficiency. This will certainly have a good impact on the industrial economy in Indonesia. Technological sophistication will increase very quickly. According to Zainal (2017), technology is part of the solution needed to meet opportunities. This is intended to help daily human activities in terms of economic, social and cultural aspects.

By looking at the effects of today's sophistication, as an entrepreneur with an entrepreneurial spirit, he will certainly see this as a great opportunity by creating new technology needed by society. There have been many people with high entrepreneurial spirits creating new technologies that have had a good impact on people's daily lives, such as Go-Jek, Grab, RuangGuru, Apple, Samsung, and so on.

Zero as a company that participates in creating an IoT-based product also experiences a fairly harsh dynamic. Where the company develops products that have not even been completed for 1 year. This is a strong reminder that in theory there are problems with the company's strategy in creating and developing a product that can be accepted by the community. A number of resources have been invested to become a waste. For this reason, in this project, the author makes a scientific paper which is expected to be a reference for companies to become an efficient strategy in creating and developing products.

II. LITERATURE REVIEW

Technology is part of the solution needed to meet opportunities (Zainal, 2017). This is intended to help daily human activities in terms of economic, social and cultural aspects. For this reason, in order to create a new product in the field of technology, the framework is crucial. The new product development literature (NPD) emphasizes the importance of introducing new products in the market for continued business success. Its contribution to company growth, its impact on earnings performance, and its role as a key factor in business planning are well documented (Nadia, 2011).

III. RESEARCH METHOD

This session will explain the method used by the author for data collection and some information needed as an informative review to assist this research. The methods used in this final project to collect data are qualitative and quantitative methods. Primary data collection will be carried out by means of questionnaires/interviews to customers who meet the criteria for the research.

In qualitative research, it focuses on the causality of unstructured information (Sari Wahyuni, 2019). So that in this qualitative research it can be used to explain the customer's perspective on the prototype made. This is done by conducting interviews with certain people.

Quantitative methods are based on positivistic philosophy. The philosophy of positivism views that reality/symptoms/phenomena can be classified, relatively fixed, concrete, observable, measurable, and the relationship between symptoms is cause and effect (Prof. Dr.Sugiyono, 2020). This is also the reason the author uses quantitative methods in carrying out research, the aim is to find out market conditions and what customers need.

IV. RESULT AND DISCUSSION

Through the data that has been collected, the author can assume that the current market conditions require something that can make energy use more efficient. One designation is to save costs that go out for primary needs. This is in line with the data obtained where 74.76% of the questionnaire respondents stated that efficiency in the use of electricity which can have an impact on reducing bill costs or purchasing tokens that are economical is something that can help them. Judging from the number of respondents who answered this, it can be assumed that the absence of dependents to pay electricity bills or buy electricity tokens affects their behavior in seeing electricity efficiency as a necessity or not. This can also be seen in Figure 1.

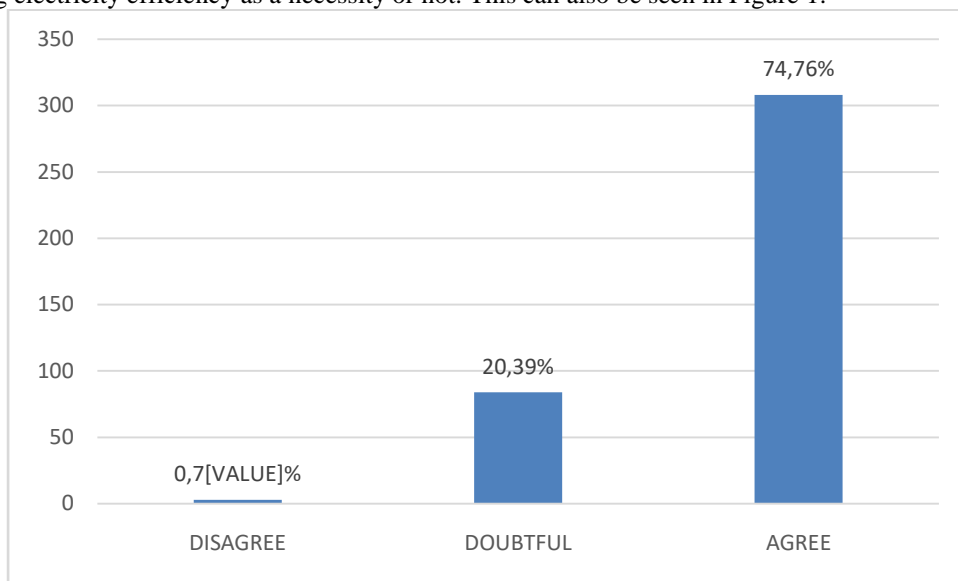


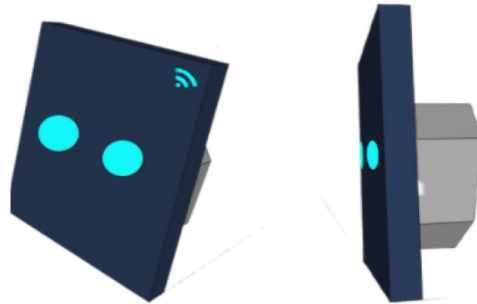
Figure 1 Graph of data collection related to people's preferences for energy efficiency

Source: Internal Data

The next thing we do is identify the product criteria. This identification aims to provide information on the requirements for prototyping, it aims to streamline and streamline strategies in the creation of a product. Through a questionnaire, the data collected will then be observed to become a criterion that will help create a product prototype. The criteria are as follows:

1. Products with features that provide users with information regarding the current state of the device. It aims to provide information to users regarding the condition (on/off) of electronic devices at home. So that they can pay attention to monitor and control device activation according to their wishes flexibly. This criterion is supported by the data that has been collected which shows that the majority of respondents agree with the existence of this notification feature.
2. The second criterion is to provide security for the device. In this case, it aims to provide security for devices that are integrated by the product. This can lead to precautionary measures in the event of an electrical short. So that it provides security not only for the product but also for the safety of people in the house. And it can also prevent building fires caused by short-circuited electronic devices by integrating electronic devices with the product. This criterion is taken as a product requirement based on the data collected where the statement responded by the respondent regarding the importance of a product that can maintain the security of electronic devices.
3. The third criterion is product durability. This is intended for the durability of the tool so that the use of the tool in the long term. This can also be an added value for the product as a high quality product. And also this is in line with products that provide security for household electronic devices, so that products with high durability become one of the security measures for users. These criteria were obtained through data collection with the majority agreeing on the importance of having products with high durability.
4. Regarding the design used, the preferences of the respondents still look good to the existing designs for the time being. Because according to them, the design gives a futuristic feel so that it matches the sophistication of the work functions offered by the tool.

After that we will create a product prototype. The use of the prototype using the paper prototyping (low-fi) method aims to provide a real picture as a description for initial trials for the product by taking advantage of its simplicity which can help create conditions that are efficient in terms of time and cost but are still effective.



Input	220-240 VAC, 50 / 60 Hz
Required wifi network	IEEE 802.11 b / g / n 2.4 GHz WPA / WPA2
Maximum current	15A per-gag
Dimension	85x85x25 mm
Maximum Power	300W per-gag
Installation	Neutral and No Neutral
Durability push button	10000 time
Smart Phone	Android OS / IOS
Maximum User	20

Figure 2 Prototype

In this concept, it aims to see the reactions of customers. This is very critical for the creation of a product, because through this process we can find out, measure, and collect information related to the extent to which our products can be accepted by customers. And the next to do a trial after that interviewing the experts. From the results of the interview, we got information that the minimum standard of the product has been met.

V. CONCLUSION

From the data, the authors obtain information related to what is the current concentration in energy management. This is closely related to the research in this final project. Then this can be our basis for designing strategies in creating products that are acceptable to the community which we summarize in a conclusion as follows:

- To understand customer needs from Zero, the thing that needs to be considered is getting information related to customer pain and gain. In this case, the problem for customers is the efficiency and effectiveness of managing energy use which has an impact on expenditure. For this reason, what can be resolved is the use of devices that implement the IoT concept that can provide effectiveness in managing energy use flexibly and scalably which will have an impact on energy use efficiency and overall this will help customers to add economic value for customers with efficient spending.
- In the big picture, for us to be efficient in making a strategy for the creation of a product, we start from an idea, which then states the idea in a vision with an initial strategy, then identifies risks by validating the strategy through validating customer needs which is integrated with the strategy or it can even change to another strategy so that the strategy will be more flexible and valid.

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*Corresponding Author: Ryan Retdiwalgi¹ AbdulHamid Batubara²
¹(School of Business and Management / Bandung Institute of Technology, Indonesia)