

NEW PRODUCT DEVELOPMENT BASED ON CUSTOMERS EXPERIENCE IN NĀU

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ABSTRACT : *The main problem for most businesses is how to make the right product for the right target market. Considering customer wants and needs is very important to make the right strategy and product development for this kind of business. NĀU is a new business that sells services and products using an Augmented Reality (AR) system. NĀU's main product is customizing AR technology system pairing according to consumers' wishes to express their feelings to recipients through hidden messages. This research was conducted to look at NĀU in terms of customer experience and product development. The result is to obtain strategies that NĀU must carry out in the future. The author uses qualitative methods in conducting this research. The qualitative method uses the Focus Group Discussion (FGD) method. The results of the FGD analysis combined with the results of internal and external analyzes from NĀU. The authors determine several strategies and products that suit consumer needs. The most suitable solution are developing webAR for NĀU, developing more product variants and also developing a promotional strategy*

KEYWORDS: *Augmented Reality (AR) technology system, New Product Development, Product Variants, Customer Experience, NĀU*

I. INTRODUCTION

There are a lot of new businesses on the market these days. The use of technology in business is also well-known, beginning with making the buying and selling process easier for consumers. One method is to use Augmented Reality technology. The Augmented Reality (AR) technology system uses technology to incorporate digital elements into the physical world. It enhances the physical world by incorporating previously static objects with textual content, URL links, video, and audio (Vaughan-Nichols, 2009).

To be able to compete with other similar businesses, NĀU faces various challenges. This challenge inspired NĀU to expand its customer base by providing Augmented Reality (AR) technology system services and goods to B2C and B2B customers. NĀU has also been trying to gain visibility through social media and personal selling to potential customers. However, to be accepted by the market, NĀU requires a good strategy and products following customer's desire.

According to research, customer experience and value creation are inextricably linked. Both areas are important because of the company's emphasis on the customer (Havír, 2019). A complete customer experience journey is mapped, during which value is created and delivered to the customer, data for customer expectations is obtained, the entire customer life-cycle is optimized, and even future customer expectations are influenced. (Verhoef et al. 2009; Sørensen & Jensen 2015). As a result, the focus of this study will be on finding value for consumers, such as developing new value-added products and improving customer experience.

II. LITERATURE REVIEW

Customer Experience (CX) is the sum of all interactions a customer has with a company and its products or services, and it represents the customer's perception of the company (Behare et al., 2018).

New Product Development (NPD), or the process of changing these products, is the responsibility of a company's research and development department and requires the collaboration of design, engineering, manufacturing, and marketing departments. The research and development department first evaluates NPD ideas that come from channels such as universities, customers, employees, competitor company examples, and so on, after which an NPD idea is created, the design department designs the idea, the engineering department arranges the idea, its prototype definition and technical details, and the marketing department launches it. (Bhuiyan 201)

III. RESEARCH METHOD

This research employs a problem-solving approach to arrive at a solution that will be implemented as improvement or solution recommendations. Problem-solving is the process of defining a problem, determining its cause, identifying, prioritizing, selecting alternatives for a solution, and implementing a solution. A critical issue is determining how to obtain solutions from various recommendation solutions (Ke, 2013).

This research author used the qualitative research method widely used in various academic fields and market research. According to Denzin and Lincoln, "qualitative research is a method of inquiry used in many different academic disciplines, traditionally in the social sciences, but also in market research and other contexts." (Denzin & Lincoln, 2018)

In this research will be used two types of data collection which are primary and secondary data collection. In collecting primary data, the author collects the data itself through focus group discussions and observations. While collecting secondary data, will go through the research and journal of other people following what is being sought.

IV. RESULT AND DISCUSSION

Through the use of focus groups discussion for 23 people with different gender age from 17 to 30, they are people who has business and not. NĀU attempts to gain customer insight into products and values. Furthermore, NĀU learned from this FGD how and what decisions and considerations customers made when selecting and purchasing NĀU products.

FGD questions are designed to meet the needs of current and prospective NĀU customers in terms of product, value, customer experience, and how NĀU can make better products in the future. The following table is FGD questions:

Table 1 FGD Questions and Result

No.	Questions	Results
1	What is the first thing that comes to your mind when you hear Augmented Reality?	The majority of participants answered games, when they heard the word Augmented Reality technology system
2	What are things (features) that you liked about this product? Why?	The majority of participant answered they like it when the image start revealed hidden message
3	What are things (features) that you would like to change about this product? Why?	All of them said that they don't like they have to download an application first
4	Do you have any questions? What else would you want to know about this product?	The majority of them didn't answer and said it's already cleared
5	Have you heard of something like this? Where?	The majority of participants said they never heard a company who sell products and service like this
6	Would you be interested in using a product like this?	They all interesting using products like this.
7	If you could have this product, what would be the greatest benefit?	
8	Describe how you would use this product?	They suggest many different products that they will use using Augmented Reality (AR) technology system
9	How often could you use or buy something like this?	If participants are business owner, they probably use it or buy it every 3 months but if they are just casual user they will buy or use it occasionally.
10	Is there anything that would prevent you from using this product?	Mostly participants said they won't use this product because they have to download an application first, it required effort and somewhat complicated to them
11	How would having products like this make you feel?	Participants said they feel happy and proud

Source: Internal Data

Participants in the FGD were given a thank you card made by NĀU and instructed to follow the instructions on the thank you card until they could see the hidden message displayed on the thank you card. Following the author's FGD, it was discovered that customers did not like the customer experience because the steps taken by customers to view AR were quite long and required a lot of effort; customers desired simpler and easier steps. In addition to a fairly lengthy step, the visual appeal and functionality of the product determines whether or not people are interested in opening AR.

Five participantssaid the first thing that comes to mind is a game when they heard the word "Augmented Reality". While four people said they couldn't think of anything when they heard the word

augmented reality, two people said ITB Insight or Pasar Seni ITB. The rest provided a variety of responses, including education, clothing, animal cards, children's books, and clothing.

The majority of 12 people said their product has engaging visuals that piqued their interest. In this case, they explained that the image changed from static on the card to be moving images when scanned using an app in their smartphone. It was well-received by the vast majority of those who took part in it. One person also stated that he feels a sense of privacy and belonging because only the card owner can open and read the hidden messages on the card.

The majority of 19 said it was complicated and not appealing because they had first had to download the app. They want to know if it can be done directly from the phone camera without downloading an app. One person said it was difficult for parents to use and that the products design needed to be improved to make it more appealing.

No one responded when asked if they had any questions about the product or NĀU. They wanted to know if NĀU used a template or if the customer had to provide their design. Another question is whether opening AR requires two internet connections or just one. Some wonder what services are available and what other products AR can be installed on.

In the FGD, all participants said they had no idea anyone sold NĀU which is customized AR services. They know some sell AR as finished goods like books and clothes.

20 FGD participants wanted to use NĀU products, while three did not. Here are some examples of participants' responses. Seven people said they will get it because it is rare to use a product like this. 6 people said it has a lot of information but it's can be store in simple form. They also get a new experience because this product is interactive.

Seven people said they would use a product like this as a gift, such as a greeting card to give to others. If someone asks for a greeting card, two business owners will use this for thank you cards and also for additional products.

Another response stated that it would be used for the green living concept, thereby reducing paper usage. Some people use it in their daily lives, such as making a cleaning schedule at home and putting memos in the refrigerator that only the people who live there know about and that can be replaced every week without scribbling. Some want to use it as a custom t-shirt to meet their specific requirements. There are also those who use business cards or resumes to appear creative and simple. The following are some examples of how participants responded to the question.

Nine participants said they would buy or use this product on special occasions like Eid, Christmas, weddings, birthdays, and graduations. 2 business owner participants said they will use it every 3 months to evaluate new products. 4 people said they will keep buying this product as long as the design changes, but if no changes are made, they will stop buying and using it.

Eighteen people said they would not use it if the steps to enjoy AR were too long and difficult. The monotone and unattractive design is also a factor in whether they open the AR.

Using this product made eight participant feels happy and three participants said proud. 4 people were intrigued by this product. 3 people will be proud and promote the product.

V. CONCLUSION

The results of this FGD analysis are because NĀU still uses applications to open AR so that potential consumers and consumers are bothered to download applications first, which makes them not even try the products in the first place, and secondly, there is a lack of product variations from NĀU there are still many products that customers require. NĀU is also a new brand, with very low brand awareness and few people aware of it.

Creating new products with more variants and innovations to provide customers with more options. The first solution is to create a WebAR, where AR can be opened without using an application, customers only need to scan the barcode which will go to the website and show the AR. Furthermore, in terms of promotions and advertising, NĀU must be more active and develop a schedule for content and advertising in their social media to be more consistent and increase brand awareness. NĀU will also work with other brands to benefit each other.

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