



## Proposed New Product Feature Development of Video Communication Platform in PT. XYZ Using Six Sigma DMADV

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**ABSTRACT:** Over time, technology has developed quite rapidly. The development of technology is also motivated by the Covid19 pandemic. One of the things affected by the pandemic is the face-to-face habit which is starting to be replaced by using video communication platforms. As a company engaged in the digital industry in Indonesia, PT. XYZ needs to be adaptive in accordance with the values held within the organization. This is done by providing a video communication platform that can help the Indonesian people. Not only providing, but organizations also need to adjust whether the products offered are in accordance with the wishes and needs of users. find out what factors influence the number of clients who register and what product features are desired by the user. Problem analysis is carried out using the Six Sigma DMADV method, which is a method in developing new products or processes within an organization. After identifying the problem and analyzing the root cause of the problem, it was found that so far there has been no clear document guide related to the products offered, causing confusion for all teams, especially the developer team and design team. There must be some guides or documents, and new products that are in accordance with the wishes and needs of stakeholders. It was found that customer desire can be answered by developing new products, such as: Automization Quality Assurance and Dashboard Admin. In developing the product, the organization needs to ensure 3 things for this plan to be successful. 3 things that need to be considered are: cycle time, resource capabilities, and the costs required to develop the product.

**KEYWORDS:** House of Quality, Product, Six Sigma DMADV, Video Communication Platform

### INTRODUCTION

Along with the times, technology continues to develop rapidly. The development of technology can be said to be very fast, especially with the Covid-19 pandemic which has accelerated the application of technology in every sector.

The Covid-19 pandemic has also changed the interaction of the world community to be adaptive in using digital technology. Many industries have been affected by Covid-19. Some of the industries that have grown to adapt to the use of technology as well as those that have experienced setbacks due to Covid-19. Example of industry that experienced rapid development was the media and telecom. Since Covid-19, human interaction is very limited. This makes media and telecom technology develop quite rapidly. Although previously it has been applied in everyday life. Its use in business and companies has not been widely used.

Technology is helping all sector to adapt to the situation. Many institutions started offering online systems through online platforms such as Google or Zoom to ensure that the quarantine didn't disrupt the interaction. For this to continue, the use of video communication is a solution that is being widely implemented.

Video conference or video communication is a data workstation which also acts as a video terminal connected to the network to provide interactive audio, video, animation, spreadsheets, databases, real time telecommunication and other applications. It has begun to experience rapid growth since the beginning of the Covid-19 pandemic, namely March 2020. Then this has become a new habit for every sector to take advantage of video communication. Until finally video communication became a new need for every sector, especially for interaction between people.

As one of the companies engaged in information and communication technology services, PT. XYZ strives to be adaptive and innovative by providing a video communication platform that hopes to assist in the development of technology in Indonesia. Video Communication Platform is one of the digital products managed by PT. XYZ in managing video communication platform products is certainly not easy. This product is required to always develop following the trends and desires of the market (customers). This challenge has occurred in this company, so that in Q1 and Q2 2022, the company cannot achieve their own target. The actual registered client which their target customer is lower than the targeted registered client.



## LITERATURE REVIEW

External factors that affect sales performance are consumer expectations, laws and regulation, and market position. Internal factors that affect sales performance include how the product is offered to the market, the strategy used to market the product, and the relationship between the product and its resources, both human resources and material resources. Further explanation regarding the factors that affect sales performance are as follows [4]:

### 1. Product

To produce products that are acceptable to the market and have good quality to increase sales, it can be assisted by using the theory of New Product Development (NPD). It is because in this theory, initiate with research. Research is necessary to find what customer wants and needs [1].

### 2. Marketing strategy

Marketing strategy is important for a product to be conveyed to its users. In the process of developing a product, this strategy becomes important. In addition, this strategy must continue to be considered along with products that are continuously offered to the market [13].

### 3. Integration with supplier

In order to maintain business, go well to produce some product, business must have a strong sustainable supplier. Building and maintaining a network of suppliers for sourcing raw materials and manpower can affect finished product. The availability of raw material and manpower can help development of product and help to speed up the delivery to consumer or user [10].

### 4. Consumer expectations

Consumer expectations are important, because they influence decision before purchase and help to determine satisfaction after purchase. This can be satisfaction or dissatisfaction. Customer satisfaction also appears in form of actual perception and expectations [5].

### 5. Laws and regulation

The laws and regulations that apply in a country or system can certainly affect economic activities, one of which is the existence of buying and selling activities. Specifically for a product, the impact of product market regulation on firms' incentive to innovate depends on the intensity of competition between firms and this can be either positive or negative.

### 6. Market position

Market position represents the sources of value to the customer that is achieved by a firm, relative to rivals in the marketplace. Market positions are achieved through the deployment of competitive advantage generating resources matched to the needs of target customers.

## METHODOLOGY

This research topic is to find the solution to the problem faced by the company. As discussed before, the main problem faced by the company is the mismatch registered client between targeted and actual. Conceptual framework can be used as a plan or method to solve the problem [4].

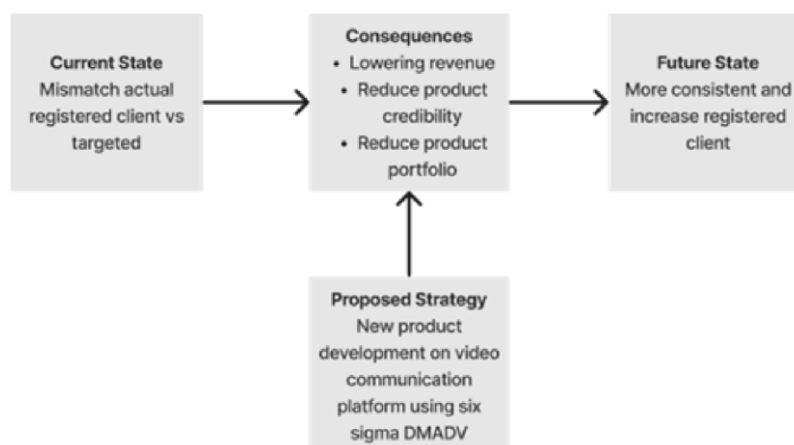


Figure 1.

## FINDINGS AND ARGUMENT

The mismatch between the registered client target with the reality is of course caused by the difficulty of getting clients. There are 2 types of clients. The first type is a client who is just about to use a video communication platform product, while the second type is a client who has already used a video communication platform and wants to extend their product contract. Despite its poor marketing and communication strategy, the product quality also affects client's decision to register the product.

To find the problem in a product, Six Sigma DMADV method can be used [1]. Six sigma methodology can be applied for product/assembly/ sub-assembly design, and it is very powerful tool which helps in launching right product. DMADV is a sixsigma method that help to find what product or feature needs to be developed. This method consists of define opportunity, measure performance, analyze opportunity, design the product, and verify the design [3].

In define phase, serious problem is identified. In this case, the company has not been able to achieve the target registered clients that have been set. The next step in this phase is to determine the goals, both from the user and the product owner. Previously, the good intentions of both parties had not been well defined. So, at this stage the goal must be redefined or improved from the previous one. For next period, the goal is to increase the actual registered client, so that it can match with the targeted registered client.

After defining the goal, next step is to measure the current condition. Goal of measure phase is to identify customers and their needs and derive specific requirements to the system. Quantitative analysis is carried out to separate users who need a video communication platform product from those who do not need a video communication platform. Next, a qualitative analysis was carried out to analyze their needs regarding the available product video communication platforms and what should be added from this existing product. The analysis begins with conducting interviews. The results of this interview can also be an initiative for future products. Product initiatives are all work and efforts that are considered to achieve the previously defined goals. Product initiatives are translated into requirements that can be provided by the product.

Cause of defects that most likely happened in this case will be determine in analyze phase. This phase has been done when the author does the 5-whys analysis. The hope is, by discussing the suma possibility of the source of this problem, it will be used as material for evaluation and design in the future.

When the problem and it causes has been find, we can start the design phase. Design phase consists of needs-gathering, engineering, and statistical method to be used during product development. The design phase begins with translating the product specifications from the interview results above into a House of Quality. The house of quality that has been formulated based on the voice of the customer is as follows.

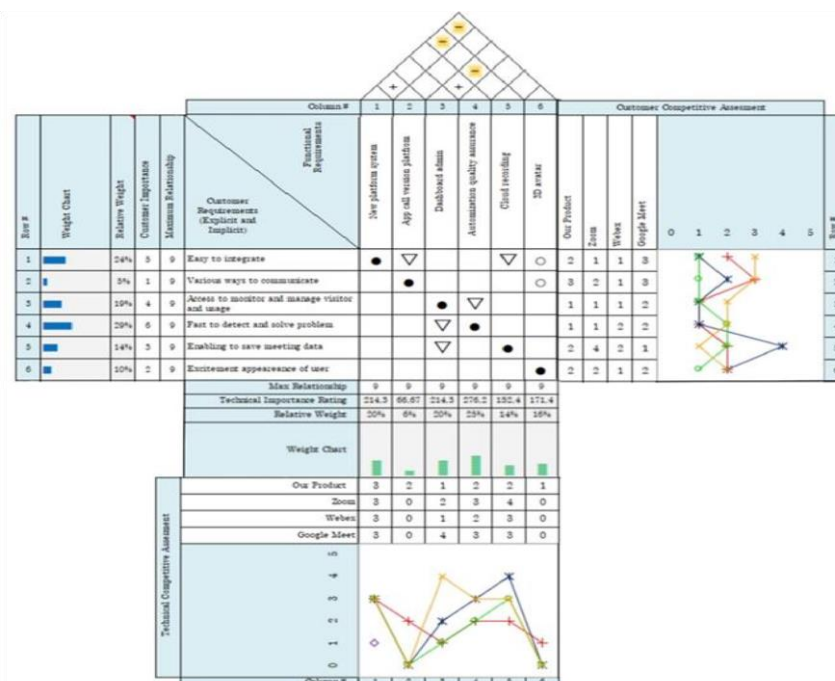


Figure 2.



## CONCLUSION

From the house of quality analysis, the top 3 requirements are occupied by automation quality assurance, new platform system, and admin dashboard. Not only look out for needs of customers, but the company also need to analyze the competitor that engaged in the same industry. Competitors engaged in providing video communication platforms include zoom, webex, and google meet. The three competitors are analyzed whether the quality of them has met the customer's wishes or not.

According to competitors' analysis, our product still has a lower point in requiring automatization quality assurance, dashboard admin, and cloud recording. It is important for the company to pursue in developing this functional requirement to compete with others. In short period, the needs of cloud recording are nor really needed by the customers. It has been effective if the company focus in developing feature that customers want and needs and also can increase value of the product among other competitors. Dashboard admin will make it easier for users to monitor meeting activities that have been used. In this feature, admins can create, view, read, and delete user data and user usage. Dashboard admin feature will somehow create new experience for user to be able to own their data related to their customer that used the video communication platform. Another feature that is still inferior to competitors is automatic quality assurance. This feature can speed up the problem reporting process and its resolution. The automatic quality assurance feature will change the business processes that occur in this video communication platform product. Especially in the process of reporting problems.

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