



Analysis of the Implementation of Honda Motor ECU Remap in Increasing Customer Engagement and Sales

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Abstract

This research aims to find out how the Panjol Motorbike repair shop can increase customer engagement and sales in its workshop business through the use of Honda Motor ECU Remap. By using an effective customer engagement strategy, workshop businesses can increase customer loyalty, retain existing customers, and increase new sales opportunities. The research method used is a qualitative descriptive method with data collection in the form of interviews and literature studies to strengthen the results of the writing. The results of the study show that the successful implementation of ECU remap at Bengkel Panjol increases customer engagement, satisfaction, and loyalty. However, sales at the Panjol Motorbike repair shop did not increase 100% due to the implementation of this ECU remap but from standard or daily services. The implementation of the remap has not fully increased workshop sales due to the lack of consumer understanding in suburban areas such as Tanjung Morawa. Several strategies, such as providing education to customers, conducting promotions, providing special packages to regular customers, and providing test drives and warranties can be carried out to increase customer engagement and sales in the future at the Tanjung Morawa District Panjol Workshop.

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1. INTRODUCTION



The business world in Indonesia is experiencing rapid growth, with companies now focusing not only on attracting buyers but also on converting them into loyal customers through satisfaction with their products and services (Nurofik & Wiana, 2022; Susiang et al., 2023). In today's competitive environment, businesses aim to build a strong customer base by ensuring that products and services meet customer expectations, which in turn leads to customer satisfaction. When customers are satisfied with a product or service, they are more likely to make repeat purchases and become loyal supporters. According to Alma and Buchori, satisfaction results from the perceived performance of the product or service compared to customer expectations. When expectations are met, satisfaction arises; however, if expectations are not met, dissatisfaction follows (Pradata et al., 2023).

Various businesses in Indonesia, from small workshops to large enterprises, are adopting strategies to improve customer satisfaction and loyalty. These strategies include enhancing service quality, improving product offerings, and creating strong emotional

connections with customers. A prime example is Panjol Workshop, located in Tanjung Morawa District, which focuses on offering motorcycle servicing. While the workshop strives to maintain high service standards, customer complaints regarding issues such as limited space, poor front-line service, and employee attitudes highlight the need for further improvements. Compared to other motorcycle repair businesses across Indonesia, Panjol Workshop faces specific challenges in optimizing its service delivery, making it an ideal case for studying customer engagement strategies in the service industry. Panjol's efforts to enhance service quality and customer loyalty, through strategies such as improving customer engagement, are pivotal in boosting customer retention and sales, which in turn fuels the business's long-term success.

For businesses to thrive in the market, paying attention to customer satisfaction is essential. Satisfied customers are likely to make repeated purchases and may even attract new customers through word of mouth. Therefore, maintaining high product quality is necessary for companies to build loyalty and ensure long-term success (Nurlaila, 2021). For this reason, businesses should actively seek customer feedback and continuously improve their products and services to meet evolving needs (Mokogwu et al., 2024).

One strategy to increase customer loyalty is the remapping of the Honda motorcycle ECU, which enhances performance and fuel efficiency. Sometimes, factory-set ECU configurations limit a motorcycle's potential, but remapping allows for better performance by optimizing beyond the standard factory settings. This tool is being tested for the first time by Panjol Workshop in Tanjung Morawa to increase customer engagement, aiming to build deeper connections between customers and the business. A review of previous studies reveals that there has been no research specifically analyzing customer engagement and sales increases through the Honda Motor ECU Remap. Previous research, such as the work by Hendriyani et al. (2020) on WhatsApp Business and sales growth at PT Saung Angklung. Zebua et al. (2022) on marketing strategies at CV. Bintang Keceraik Gunungsitoli, highlight the importance of marketing strategies and technological tools in boosting sales. These studies show that effective marketing strategies and tools can positively influence sales and customer relationships.

Given the novelty of this research, it aims to examine how Panjol Workshop can increase customer engagement and sales by utilizing the Honda Motor ECU Remap tool. The findings will provide insights into how workshop businesses can improve customer loyalty, retain existing customers, and create opportunities for new sales. By focusing on customer engagement strategies, the workshop can optimize its services and offerings. The specific focus on Tanjung Morawa District is significant as it offers a unique opportunity to study the impact of the Honda Motor ECU Remap on a local service business. The research will contribute to understanding how innovative service strategies can lead to increased customer engagement and business growth in this context.

This research is important because it fills a gap in existing studies by analyzing the specific relationship between the Honda Motor ECU Remap and customer engagement in the workshop sector. It also offers a practical approach to enhancing customer loyalty and sales in the motorcycle service industry, making it a valuable study for business owners and entrepreneurs in similar industries.

2. METHODS

This study employs a qualitative descriptive research approach to examine the implementation of Honda Motor ECU Remap in enhancing customer engagement and sales at Panjol Workshop. The research will be carried out in several stages, starting with the identification of the research problem. Data will be collected through interviews, observations, and documentation, ensuring a thorough exploration of the topic (Rijali, 2019). Primary informants will be selected from Panjol Workshop's management, service staff, and a few loyal customers who have utilized the ECU remapping service. These

individuals are chosen due to their direct involvement and experience with the service, which will provide crucial insights into how the remapping affects customer engagement and the workshop's performance.

The data analysis process will involve coding the responses from interviews, followed by the identification of recurring themes related to customer satisfaction, loyalty, and the impact on sales. Afterward, a thematic analysis will be conducted to identify patterns and insights into the effectiveness of the ECU remapping service in fostering customer relationships and driving sales growth. To ensure the findings' validity, the study will utilize triangulation, cross-referencing data from different sources. The aim of the research is to offer a thorough understanding of how the Honda Motor ECU Remap implementation influences customer loyalty and sales at Panjol Workshop, and to provide actionable recommendations for business development.

To gain a comprehensive understanding of how the implementation of Honda Motor ECU Remap influences customer engagement and sales at Panjol Workshop, a detailed data analysis process will be employed. This process involves several steps to ensure that the gathered data is thoroughly examined and valid conclusions are drawn. The following steps outline how the data will be analyzed:

- a. **Data Collection**
Conduct interviews with Panjol Workshop's management, service staff, and loyal customers who have experienced the ECU remapping service. These interviews will provide direct insights from key stakeholders about their perceptions and experiences. Then observe customer interactions with the ECU remapping service and document their experiences. This will provide valuable context to the interview data and reveal any patterns that emerge from real-time service delivery.
- b. **Data Organization**
The responses from interviews will be coded to categorize the data into meaningful segments. This will help identify specific themes related to customer satisfaction, service quality, and loyalty. Then the documentation and observations will be organized into themes that align with the research questions, ensuring that all relevant aspects of the customer experience are covered.
- c. **Thematic Analysis**
Key themes such as customer satisfaction, loyalty, and the impact of the remapping service on sales will be identified from the coded data. This step will highlight the core areas where the ECU remap influences customer engagement. Then patterns will be examined to understand the relationship between customer engagement and business outcomes. For example, how does satisfaction with the ECU remapping correlate with repeat visits or increased sales?
- d. **Triangulation**
Triangulation will be used to cross-check the findings from interviews, observations, and documentation. By comparing data from multiple sources, the validity of the conclusions can be strengthened and any discrepancies can be addressed.
- e. **Analysis and Reporting**
The analysis will culminate in a summary of key findings, highlighting the impact of Honda Motor ECU Remap on customer engagement and sales. Then based on the findings, practical recommendations will be provided to Panjol Workshop for improving customer engagement, increasing loyalty, and driving higher sales.

3. RESULT AND DISCUSSION

3.1. Results

Introduction to ECU Remapping On motorcycles with injection

Good combustion process is needed to get maximum performance, which can be done by remapping the motorcycle ECU or commonly called ECU Remapping. REMAP is a

standard ECU that has been reset, reflashed, or can also be called a tuning ECU (Lapisa et al., 2023). ECU (Engine Control Unit) remap is the process of modifying or adjusting existing parameters on the ECU to optimize engine performance. This process can improve power, fuel efficiency, and motor responsiveness. The purpose of Remap ECU is to improve the performance of Honda motorcycles according to customer needs, both for daily use and for racing purposes." ECU remap is a change in data or an upgrade of ECU data, such as software. If the standard default data from the showroom or manufacturer is the standard from the results, so if the remap is upgraded or updated, there are special additions that must be made to improve motorcycle performance," said Panjol as the owner of the Workshop. Based on the results of the interview above, it can be known that the Ecu Remap is a workshop software that is used to improve engine and fuel performance. A software that can convert factory default standard data into new, updated data.

Implementation of ECU Remap in the Panjol Motorbike repair shop of Tanjung Morawa District.

The Panjol Motorbike repair shop has been implementing the use of Remap ECU for about 2 years, precisely in early 2023. Workshop owners learn on their own with the help of groups provided by workshop vendors. From that group, every member who remaps on consumer motorcycles pours out the problems he faces and as a member of the group, the workshop owner listens to the knowledge he gets from the group. For the implementation process itself, according to Panjol as the owner, it cannot be explained in detail because the ECU remap is a software whose application is only known by people who understand the workshop, especially this Ecu remap. However, the owner said that there is a tool in the form of a connecting cable used to connect the Ecu motorcycle with a computer that will display vehicle data which will then be carried out the Ecu remap process according to the customer's wishes. It can be seen in the image below the results of motorcycle data that have been remapped by Ecu.

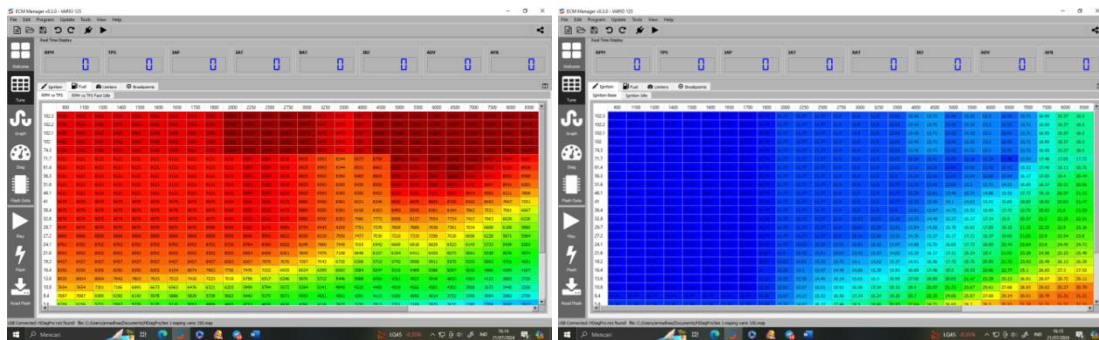


Figure 1. The Remap of The Honda Motorcycle Ecu at the Panjol Workshop
Source: Data Processed (2024)

Based on the image above, you can see the results of the remap data that has been upgraded or updated. As the owner said, the data cannot be explained directly to the customer but the customer can feel the changes to his motorcycle after the remap is applied. The owner admitted that the remap work process was not long and depended on each workshop, as in the interview that the following researcher has conducted; "The data upgrade does not take long depending on each workshop. In this workshop, the longest work is only 1 hour and it is not only the process of entering data but also the process of experimenting with data that has been remapped. Incidentally, in this workshop, we give 3 experimental data. Every incoming data of consumers is on the road, which one according to him is the most convenient and the most convenient to use." - said Panjol as the owner of the workshop.

At the Panjol Motorbike repair shop in Tanjung Morawa District, the cost incurred for a single remap depends on the type of motorcycle and the engine spec. For the daily

standard spec it costs around 250-350k, the special spec is 350-500k and for racing motorcycles it is around 700k-1 million for a single ECU remapping. Workshop Panjol also provides a warranty for customers who have remapped for 1 month. If within 1 month the customer wants to exchange between the three trial data above, they can return to the Panjol Motorbike repair shop and will not be charged any additional fees. According to the workshop owner, the implementation of Remap ECU has no side effects on customers' motorcycles, "there are no side effects. Remap will not damage or there will be changes or after remapping the data back to the manufacturer's standard it does not exist. The data that has been remapped will never change unless it is remapped again or returned to the manufacturer's data, then it will return to the way it was before, like before the ECU remap was carried out," he said. Based on the results of the interview, it can be seen that the ECU remap process carried out is safe and does not pose a risk of motorcycle damage. Customers also do not need to worry about side effects after the ecu remap. The resulting data will also not change unless it is remapped or restored to the manufacturer's data settings.

Increased Customer Engagement and Sales at the Panjol Motorbike repair shop in Tanjung Morawa District

After the Implementation of Honda Motor ECU Remap The successful implementation of the ECU remap at the Panjol Motorbike repair shop increased customer engagement, because they felt that they got more value from the services provided. This customer satisfaction also has an impact on increasing word-of-mouth and customer loyalty. Many new customers come after hearing positive testimonials from customers who have remapped. This was clarified by Panjol in his interview, "until now there have been no complaints and accordingly, they are also satisfied and there have never been any problems or unwanted things. In my opinion, many customers are loyal and even they can be said to be marketing without a salary. Their motorcycles are given deliciously, next week or next month they will definitely bring their friends. So they recommend this workshop indirectly. And it also happens that in this area, this workshop is the only one that implements the motorcycle ecu remap." This was justified by Fajar, one of the customers at Wokshop Panjol, "if you say you are satisfied, I feel satisfied with the service, even if there is a problem on the train, I immediately bring it here. Like yesterday I had a fall, yes, I immediately brought the train here, I believe in this workshop. I also sometimes recommend this workshop and my friends invite me here. Either the person is servicing the train, changing the oil, or if it is damaged in the train," continued Fajar. "That's right, Fajar, I also got a recommendation for this workshop from him. What I think is also a good result, suitable" added Akmal confirmed.

Based on the results of the interview above, it can be seen that Fajar as a customer gave positive testimonials about the workshop, which shows that he has high confidence in the quality of the services provided. Fajar as a customer often recommends this workshop to his friends for various needs, such as servicing, oil changes, and motorcycle repairs, while Akmal corroborates this statement by mentioning that he came to the workshop based on recommendations and was satisfied with the results. This reflects the importance of word of mouth as an effective marketing strategy, where customer satisfaction encourages them to refer the workshop to others. Although customers were satisfied with the results, some of them complained about their vehicles that were old to handle, given the busy state of the workshop and only 2 workers, namely the owner and 1 employee. Even though they had to wait for their turn for the bike to be worked on, they admitted that the results obtained were in accordance with their wishes and the price offered was also in accordance with the quality. Testimonials from customers like this not only increase customer engagement but also help the workshop expand its network through direct referrals, which has a positive impact on sales. Customer engagement at the Panjol Motorbike repair shop increased, not fully followed by an increase in sales of Remap Ecu Motor services. The workshop owner realizes that sales at the workshop have not increased 100% because of the implementation of this ECU remap but from the sale of other services and goods such as standard or daily

service, monthly service, oil change, purchase of vehicle spare parts, CVT service, throttle body washing and others. "It is said that the increase has not been seen, maybe because this is a suburb, not like in Medan, which is indeed the capital, so the implementation of the remap has not been too much because in general, consumers do not understand what a remap is.

Most of those who already understand it are usually those who get recommendations from friends on average. Maybe they said they had complaints about the vehicle 'why is this, why is that' after being serviced in some places there is still no change, so friends on the advice to try it on the remap. Well, most of them are like that, even many of them even ask back what a remap is, what is it used for. So, it is not totality for the suburbs like in Tanjung Morawa." said Panjol as the owner of the workshop. Based on the explanation above, it can be seen that although the implementation of ECU remap plays a role in increasing customer engagement, it has not had more of an impact on increasing sales of remap services in workshops. This is due to the lack of understanding of consumers in suburban areas such as Tanjung Morawa about the benefits of remapping ECUs. Most consumers focus more on routine maintenance services such as daily, monthly service, oil change, and CVT service, which are better known and needed directly. Consumers who use remap services generally come based on recommendations from friends or after looking for solutions to problems that have not been solved by other workshops. This indicates that education related to ECU remapping is still needed, especially in areas that do not have a high level of understanding such as in big cities. The text should be typeset in Arial Narrow, 11 pt, Line spaces Single, Alignment justify, First Paragraph Indentation None, in rest of the text, First line Indentation at 1cm).

3.2. Discussions

Improving Customer Engagement at the Panjol Motorbike repair shop in Tanjung Morawa District

The successful implementation of the Honda motorcycle ecu remap at the Panjol Motorbike repair shop in Tanjung Morawa District provides satisfaction to customers which then has a positive impact on increasing customer engagement. Many of the customers get more value from the services provided by the workshop on the performance of their motorcycles. Customers who are satisfied with the results provided make them give positive testimonials which then recommend the workshop to others so that many other consumers come whether it is to do remaps or other services. The resulting increase in motorcycle performance not only makes customers feel satisfied with their motorcycles but also makes them feel comfortable and safe so that they feel confident in the Panjol Workshop. As the owner said, many customers voluntarily recommend the workshop to their friends so that they indirectly act as "unpaid marketing". This is also related to word-of-mouth recommendations that attract new customers. Customers who have benefited from the remap ecu not only return for treatment, but also bring others. In addition to word of mouth recommendations, the Panjol Motorbike repair shop is also fortunate because of its position as the only workshop in the area that implements the motorcycle ecu remap service. The innovations provided by the workshop have a positive impact on increasing customer engagement which allows the Panjol Motorbike repair shop to develop further by utilizing customer satisfaction and loyalty.

Increase in Sales at the Tanjung Morawa Workshop

The success of customer engagement at the Tanjung Morawa Motorcycle Workshop, which has increased, does not necessarily make sales increase by 100% from the implementation of the motorcycle ecu remap but from standard services that are more widely known and used directly such as daily, monthly, oil change, throttle body washing, CVT service and others. The owner realizes that the location of the workshop in the suburbs such as Tanjung Morawa makes not many people familiar with technology such as motorcycle ecu remapping. Most of those who use the service are people who are indeed

hobbyists and understand about motorcycles. In contrast to big cities, such as Medan, there are already many workshops that have applied these services, making the understanding of this ECU remap greater. Therefore, the resulting increase in customer engagement is not followed by an increase in sales of motorcycle ecu remap services. The lack of understanding makes consumer interest in using motorcycle ecu remap services less so that more education is needed to consumers related to ecu remap technology which is expected to make many consumers feel interested and can increase sales of ecu remap services in the future.

Strategy for Improving Customer Engagement and Sales in the Implementation of Ecu Motor Remap at the Panjol Motorbike repair shop in Tanjung Morawa District

The strategy is to determine the company's long-term goals and objectives, implement these goals, and allocate the necessary resources to achieve the goals (Fitria et al., 2024). Several strategies can be used by the Panjol Motorbike repair shop to increase customer engagement and sales, including the following: 1) Providing Education to Customers, this can be done by providing a further understanding of the benefits of remap such as improving motorcycle performance, fuel efficiency, and others, it can also be by conducting counseling (demo) to the community or maybe the motorcycle community. So that it can make people understand more and feel confident in the services provided. 2) Doing Promotion Through Social Media, can be done using various platforms such as Instagram, Facebook, and even TikTok. Owners can make videos or brief explanations about the remap so that it can attract consumer interest and a wider reach. 3) Providing special packages to regular customers. This can be done by providing special discounts for loyal customers, such as providing a free service package when remapping ecu. This encourages customers to come back and even recommend the workshop to others. 4) Provide Test Drive and Warranty. The Panjol Motorbike repair shop can provide services in the form of vehicle tests after the application of remap and warranty if it turns out that there are problems after the implementation of the remap is carried out. This can increase consumers' sense of security and trust in the workshop.

4. CONCLUSION

Based on the data and results of the discussion, it can be concluded that the ECU (Engine Control Unit) remap is a process of modifying or setting parameters on the motorcycle ECU to optimize engine performance. This process can improve power, fuel efficiency, and responsiveness in vehicles. At the Panjol Workshop, the ECU remap has been carried out for about 2 years and the cost of the remap depends on the type of motorcycle and the engine specifications. There are no side effects of remapping, and the data will not change unless it is remapped or restored to factory data. The successful implementation of the ECU remap at the Panjol Motorbike repair shop has increased customer engagement, satisfaction, and loyalty. However, sales at the Panjol Motorbike repair shop did not increase 100% due to the implementation of ECU remap but from standard or daily services. The implementation of the remap has not fully increased sales due to the lack of consumer understanding in suburban areas such as Tanjung Morawa. Several strategies, such as providing education to customers, conducting promotions, providing special packages to regular customers, and providing test drives and warranties can be carried out to increase customer engagement and sales in the future at the Tanjung Morawa District Panjol Workshop.

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