Abstract. PT Mandiri Tunas Finance is a company engaged in financing new or used cars, motorcycles, and commercial vehicles, with a network of 102 branches spread throughout Indonesia. In its business process, sales performance monitoring is still considered ineffective, because the information about sales performance is in the form of an excel calculated manually. The salesperson could not monitor it directly. This study aims to produce a MTFSales application design using Human Centered Design. The prototype was tested using the user testing method and the SUPR-Q questionnaire. The results of the test using user testing are positive results with some suggestions from users. The test results using the SUPR-Q method for sales officers are 88.19%, sales heads are 88.65% and branch managers are 83.81%. All three are in the excellent and acceptable categories so it can be said that the design can be accepted by the users.

Keywords: Human Centered Design, Sales Performance, SUPR-Q, User Testing

1 Introduction

Established companies have the same common goal: to make a profit [1]. Gains can be obtained more quickly if all stakeholders in the company work together. Companies require professional and qualified employees or stakeholders. Quality human resources can help the company achieve its objectives [2]. Employees with good marketing skills are necessary for companies that have a business model of selling their products, both service products, and goods [3][4]. One of the essential roles in the company's marketing department is sales officer. The sales officer must find customers. Sales officers are the company's leaders and are directly involved in marketing and distributing the company's products to the general public.

According to Amaliah Niswan, Market Intelligence and Research Head of PT Mandiri Tunas Finance, PT Mandiri Tunas Finance currently does not have an application or website to monitor sales performance and sales officer productivity. As a result, monitoring sales performance and sales officer productivity are only possible after reporting on specific days. Sales performance calculations are still done by hand using Microsoft Excel. The Sales Officer will report to the Sales Head the customer acquisition results and total payments, and the Sales Head will report to the Branch Manager. Sales officers and Sales Heads get updated information, targets that must be
achieved, or tasks that must be done only during meetings. So they still find it challenging to directly know the performance on that day.

In this study, a web-based application user experience was designed using the human-centered design method to assist sales officers, sales heads, and branch managers in monitoring sales performance and productivity [5]. The Human Centered Design method was chosen because it focuses on human-centered design with a more in-depth analysis of target users and involves stakeholders in the process. It concentrates not only on general human characteristics and perceptions but also on the specific traits and features of the target user. Human-Centered Design pays attention to details about the target user who is the object of the design, such as professional background, product usage environment, emotional characteristics, and physical perception, as well as the level of technology awareness and other factors. The human-centered design method follows the various characteristics of stakeholders or potential users of the MTF Sales website. User experience design is needed so that users get a good experience when using the website with several indicators, including easy to use, easy to learn, efficiency and effectiveness, fun, and so on [6][7]. Based on these problems, a design for an integrated website is needed, which will be developed in this study.

2 Research Methodology

Research conducted by Human Centered Design Method. Human Centered Design (HCD) is a method used to design application designs that are oriented to humans as users so that UX Designers know what users really and directly need [8][9]. The application of the Human Centered Design method, basically it must be based on a sufficient understanding of the user, where the user will be the source of information from the research. The first step in this method is Specifying Context and System Usage. This stage also includes identifying stakeholders and users, conducting interviews with stakeholders and users, identifying user characteristics, determining user goals and tasks, and determining the system's completeness.

The second step in this method is Analysis of User Needs and Requirements. At this stage, all the information obtained is then analyzed to find out the problems and needs felt by the user by creating personas, empathy maps, pain points, user journal maps, and user needs specifications. The third step in this method is Design Solutions. At this stage, a task flow is created that determines the process flow of each application functionality, a wireframe as a sketch of the initial appearance of the application, and a mock-up as the final display of the application designed using Figma software. The last step in Human-Centered Design method is Solution Design Evaluation. At this stage, testing is carried out using user testing and the SUPR-Q questionnaire. Before doing user testing method evaluation, it is necessary to create a task scenario to determine the flow that will be carried out by the user and evaluated.

3 Results and Discussion

The usage context specification phase begins with identifying the stakeholders involved and the potential users who will use the MTFSales application.

3.1 Identify the Stakeholder and User

The stakeholder involved is the Strategic Marketing Intelligence Division of PT Mandiri Tunas Finance. This division regulates and supervises the performance of sales officers and monitors the sales performance of all branches in Indonesia. Users are a group of people who interact directly with the system. Table 1 below describes potential
users who will use the MTFSales website.

Table 1. Identify the users

<table>
<thead>
<tr>
<th>User</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales officer</td>
<td>People who market Mandiri Tunas Finance retail products directly to customers.</td>
</tr>
<tr>
<td>Sales Head</td>
<td>The person who leads and determines the tasks that need to be done by the sales officer.</td>
</tr>
<tr>
<td>Branch Manager</td>
<td>The person who leads the Mandiri Tunas Finance branch and manages and supervises the sales head and sales officer at that branch.</td>
</tr>
</tbody>
</table>

3.2 Interview Result

Interviews were conducted with five people for each user group and with stakeholders. The stakeholder is from the Strategic Marketing Intelligence division of PT Mandiri Tunas Finance. The results of interviews with stakeholders explain the problems of sales performance and salesperson productivity that exist at this company. This company still does not have an information system that can facilitate monitoring of sales performance and sales officer productivity. Stakeholders want a website-based application that is easily accessible to users, namely sales officers, sales heads, and branch managers. The interview results from users show that there are problems with the sales performance monitoring system, which is still done manually using an excel file. Stakeholders and users need an application or website that can make it easier for them to monitor sales performance more effectively.

3.3 Specify the User Requirements

The interviews with stakeholders and users obtained new insights that are useful for determining the point of view in determining the need to design the MTFSales website. Based on that result interview, the following user requirements specifications are generated. The requirements for sales officer are:

1. The system can display sales performance over a certain period with clear graphs.
2. The system can display the number of products successfully sold by the sales officer.
3. The system can display how many sales performance targets must be achieved and how much actual performance has been achieved. See how many total vehicle units the sales officer has successfully sold and the achievable targets.
4. The system can display the average number of total vehicle units sold by the sales officer under him.
5. The system can be used to display the total number of sales transactions successfully carried out by the sales officer under him and the target.
6. The system can be used to display the details of the status of the acquired applications and their number.
7. The system can be used to display every type of incentive earned in this month and the previous month.
8. The system can display a list of early payment defaults from customer accounts that have been acquired and detailed information.
9. The system can be used to display the ranking of sales officers.
10. The system can be used to create tasks on certain days, times and places.
11. The system can display existing tasks based on the selected date.
12. The system can be used to mark completed tasks.
13. The system can be used to display the progress of completed tasks.
14. The system can be used to display the current challenge levels to be achieved by the sales officer.
15. The system can be used to display various vouchers that the sales officer can choose to redeem.
16. The system can display a barcode or voucher code for the process of using the voucher by the sales officer.
17. The system can store vouchers that have been redeemed.
18. The system can display the profile details of the sales officer.

There are different requirements for each user group. Requirements sales head has a difference in dashboard access that can be seen. They can view and monitor the sales officer dashboard. Meanwhile, branch managers can access dashboards belonging to sales officers and sales heads. In addition, the difference between branch managers is that they do not require the challenge and redeem features because the branch manager does not go directly to the field to find customers.

3.4 Hook Model

The hook model (Figure 1) is a process used to create a user habit in using a product or service which consists of four stages [10][11]. If a pattern is formed, it will increase engagement or the frequency of accessing the website.

![Hook Model by Nir Eyal](image)

Figure 1. Hook Model by Nir Eyal

The first stage is the trigger, which is divided into internal triggers and external triggers. The internal trigger stage is the stage that becomes the mover or cue for action that can build a habit. The internal trigger on the MTFsales website is a sense of initiative from the sales officer or sales head to increase rankings. In addition, the sales officer or sales head desires to get more incentives, bonuses and vouchers. External triggers for users of the MTFsales website are notifications about daily tasks that must be done and notifications about challenges that must be achieved.

The second stage is action. After the user gets the trigger, the user will execute an action on the MTFsales website, namely signing up and logging in, monitoring the sales performance on the dashboard page, working on the tasks that have been recorded on the daily task page, doing existing challenges to get additional points and incentives, exchange points earned with vouchers provided by PT Mandiri Tunas Finance. In addition, users can also see their rankings or those of other salespersons.

The third stage is the variable reward. Variable rewards on the MTFsales website are getting incentives and points. The last stage is investment. This stage consists of getting a voucher that can be used at any time with a specified time limit. In addition to vouchers, users will also earn badges according to their level.

3.5 Mock-Up

Mock-ups are high-fidelity designs based on wireframes. After making a mock-
up, a high-fidelity prototype can be made, which aims to describe the system solution with appearance, interaction, and functionality close to the existing system. MTF Sales application mock-up is made for every user, namely sales officer, sales head, and branch manager. Figure 2 is a mock-up of the signup and login page, where users can enter some data in the available fields and it is mandatory if they want to create an account to use the MTFSales website. Users who have registered and have an account can log in by filling in the available fields.

![Figure 2. Mock up Design of Sign up and Login Page](image)

The next high fidelity design is a dashboard for Sales officers, sales heads and branch managers. Sales officers can view their sales performance information. Sales heads can monitor the sales officer's dashboard. The difference between the sales head dashboard and the sales officer dashboard is the variables displayed on the total productivity chart and the default early payment chart. Branch managers can monitor the sales performance of sales heads and sales officers. The difference between the dashboard display of the sales head and the sales officer and sales head is the variable in the total productivity and early payment default. This design is presented in Figure 3.

![Figure 3. Dashboard for Sales Officer, Sales Head, and Branch Manager](image)

If the user completes the task, they can mark the task as completed. Then, the percentage of daily task goals will increase according to the number of jobs that have been completed.
Figure 5 is high fidelity design for rank of sales officer and sales head throughout Indonesia. Ranking can be distinguished based on branch offices, area/region of branch offices and rankings throughout Indonesia. Ranking can also be seen by date.

The next design is for challenge page that sales officers and sales heads can access. Challenge consists of several different levels. If they achieve the target of the number of accounts acquired and the number of sales, they will get rewards in the form...
of points and incentives. In addition, users will also get badges for the levels they have achieved. This design is presented in Figure 6.

Sales Officers and Sales Heads can see a selection of vouchers, they can use if the points they have are sufficient. The choice of vouchers is very diverse, ranging from holiday vouchers to food vouchers. Using this voucher is by scanning the barcode on the partner's scanner or by entering the code on the partner's system. This design is presented in Figure 7. Redeem.

Users can view their personal information, namely sales officer ID (NIP), name, position, email and cellphone number. In addition, users can view information about the points they have and badges they have earned. This design is presented in Figure 8. Profile.

4 Evaluation and Analysis

This study's evaluation method for user experience design uses user testing techniques and the Standardized User Experience Percentile Rank Questionnaire (SUPR-Q) questionnaire method. Respondents for the user testing method are 5 sales officer respondents, 5 sales head respondents and 3 branch manager respondents. After that, the test was conducted by filling out the SUPR-Q questionnaire, which was conducted on 45 sales officer respondents, 25 sales head respondents and 21 branch manager respondents.
4.1 User Testing

The user testing technique is carried out by testing the MTF Sales website design directly to the user, to find out whether the design made is satisfactory and easy to understand. The result of the user testing evaluation is qualitative feedback for the MTF Sales website [12]. The first stage to perform user testing is to create a task scenario.

Table 1. Task Scenario

<table>
<thead>
<tr>
<th>Task Scenario</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register an Account as a sales officer</td>
<td>Sales officers are asked to create an account by entering your NIP, name, email, mobile number and email.</td>
</tr>
<tr>
<td>Login to the sales officer account</td>
<td>Sales officers are asked to log out of the account, then log in by entering the registered NIP and password.</td>
</tr>
<tr>
<td>Displaying sales performance and productivity</td>
<td>Sales officers are asked to open a dashboard page that displays sales performance and productivity information.</td>
</tr>
<tr>
<td>information on the dashboard</td>
<td></td>
</tr>
<tr>
<td>Create task</td>
<td>Sales Officers are asked to open the daily task page and fill out a form consisting of the task name, start time, end time, work location, and description.</td>
</tr>
<tr>
<td>Show tasks and complete them</td>
<td>The Sales Officers are asked to open the daily task page and complete the existing task.</td>
</tr>
<tr>
<td>Displays ranking information</td>
<td>Sales officers are asked to open the ranking page.</td>
</tr>
<tr>
<td>Displays challenge information</td>
<td>Sales officers are asked to open the challenge page and view detailed level information.</td>
</tr>
<tr>
<td>Displays a list of vouchers that can be owned</td>
<td>Sales officer is asked to display the voucher he already has on the redeem page.</td>
</tr>
<tr>
<td>Displays the profile page</td>
<td>Sales officer is asked to go to the profile page.</td>
</tr>
</tbody>
</table>

The sales officer task scenario has a lot in common with the sales head and branch manager. The difference only lies in accessing the dashboard page and the challenge/redeem page. The sales head can access the sales officer's dashboard page. Meanwhile, branch managers can access sales officers and sales head pages. Challenge and redeem pages are only owned by sales officers and sales heads.

There are positive and negative assessments or inputs from respondents. Based on the user testing evaluation, the positive value is that respondents understand the data displayed readily and are easy to use overall, increasing work motivation because of the transparency of sales performance data, rankings, and bonuses and rewards obtained. At the same time, the negative value is the lack of features in finding information about the salesperson under control.

4.2 Standardized User Experience Percentile Rank Questionnaire (SUPR-Q)

The Standardized User Experience Percentile Rank Questionnaire (SUPR-Q) method is a way to test the questionnaire and develop it through psychometric certification activities covering the eight best questions [13]. SUPR-Q assesses the aspects of usability, credibility, appearance, and loyalty [14][15]. Testing by filling out the SUPR-Q questionnaire will provide quantitative results.
The SUPPR-Q questionnaire has 8 questions. The calculation is done by adding the value of the questionnaire question items 1-7 (Q1 to Q7) to become the total value in the JM1 column. Then add half the value of the 8th question item (Q8) which is in column JM2, and add up the values in column JM1 with column JM2 to become column N-SCORES. The final stage is calculated using the formula for calculating the percentage of the SUPR-Q value.

The results of the evaluation using the SUPR-Q method for sales officer users have an average value of 88.19%, which is included in category A, namely Excellent, with the elaboration of usability aspects having a value of 84.77% (good), the credibility aspect has a value of 92.86% (excellent), the appearance aspect has a value of 85.23% (excellent) and the loyalty aspect has a value of 88.57%.

Evaluation using SUPR-Q for sales head users has an average value of 88.65%, which is included in category A, namely Excellent, with the elaboration of usability aspects having a value of 84% (good), credibility aspect having a value of 86.40% (Excellent). The appearance aspect has a value of 85.20% (excellent) and the loyalty aspect has a value of 86.40% (excellent).

Evaluation using SUPR-Q for branch manager users has an average value of 83.81%, which is included in category A, namely Excellent, with the description of usability aspects having a value of 84.77% (good), credibility aspect has a value of 92.86% (excellent), the appearance aspect has a value of 83.23% (good) and the loyalty aspect has a value of 88.57% (excellent).

4.3 Analysis of Human Centered Design Perspective

In the human-centered design approach, there are three essential idea perspectives that support this method. These perspectives intersect each other and result in the conclusion of the intersection between the three [16][17]. The two perspectives which are desirability and feasibility.

Desirability is the earliest stage in the design process of the Human Centered Design approach, which means gathering various desires and inspirations from participants. In the research, the needs analysis process begins with identifying stakeholders and users of MTFSales, which is part of PT Mandiri Tunas Finance. PT Mandiri Tunas Finance's stakeholder directly responsible for sales performance is the Strategic Marketing Intelligence division. The user group of the MTF Sales website is salespeople consisting of sales officers, sales heads and branch managers. The researcher interviewed stakeholders and users to find out the problems and needs in PT Mandiri Tunas Finance, especially in the sales field. To find out the problems and needs in PT Mandiri Tunas Finance, especially in the sales field, the researchers conducted interviews with stakeholders and users. The main objective at this stage is to get a
complete picture of the needs and desires of each stakeholder so that it can be used as an initial study.

**Feasibility**: The results obtained from desirability will be evaluated whether it is feasible in several aspects such as legal, socio-cultural, technical/technological aspects, and physical feasibility. Feasibility studies are used as the basis for determining commercial and non-commercial activities so that they become one of the instruments in the framework of preparing design plans. From the solutions contained in this research, there are strategies or feasibility studies from the business aspect, namely:

1. **Data Driven Selling Strategy**
   The daily task feature contains job information that must be done by sales officers, sales heads and branch managers. The data generated from this feature will produce an analysis that will be compiled into a Data-Driven Selling Strategy. Data-driven analysis of lending products can increase sales effectiveness. Focusing only on 14% of target customers, but can increase revenue by 16 and increase the probability of selling up to 3 times [18]. Based on Mandiri Tunas Finance's 2020 financial report, revenue from Consumer Financing and Lease Financing was 1.98 trillion rupiahs [18]. If the expectation of an increase in sales is up to 16 percent, then the expected revenue increase will reach 316 billion rupiahs. With the daily task feature and the data-driven selling strategy, it can increase PT Mandiri Tunas Finance's profits.

2. **Decrease in Labor Cost**
   The MTFsales website-based application is designed with a display that displays information and features for sales officers, sales heads and branch managers which when developed, the data are interconnected and integrated [19]. With an integrated system, in the long term many positions will no longer be needed. Based on Monsterlab's research, the digital innovation revolution can reduce labor costs (salaries and employee benefits) by up to 15%. Based on Mandiri Tunas Finance's 2020 financial report, employee salaries and benefits amounted to 491 billion rupiahs. With an integrated system, labor costs will be reduced by 15% and there will be savings of 73 billion rupiahs.

5 **Conclusion**

Based on the sales performance problems that exist at PT Mandiri Tunas Finance, user requirements specifications are generated which consist of 18 user needs for sales officers, 20 user needs for sales heads and 14 user needs for branch managers. The user experience design uses the Human Centered Design method which produces 6 features, namely dashboard, ranking, daily task, challenge, redeem, and profile. The results of the evaluation of the user testing method are qualitative data, there are positive and negative assessments or inputs from respondents. The test results using the SUPR-Q method for sales officers are 88.19%, sales heads are 88.65% and branch managers are 83.81%. All three are in the excellent and acceptable categories so it can be said that the overall website-based application developed is acceptable to the respondents.

**References**

10.1016/j.procir.2016.05.102 (2016)