

CHAPTER IV



IMPLEMENTATION AND RESULTS

4.1 About the Implementation

Before getting start, the team introduces new system to all dealers in Meeting September 2004 to make the commitment. Then they set the pilot dealers, Vipavadee and Ladplaow, for the preparation and launch it in January 2005. The pilot aims to determine if the newly designed process had the impact expected.

There are three areas to prepare for new system as below.

1. Commitment Recognition
2. System setting
3. Training

Commitment Recognition

The first step is to get all staff involved with the whole process gain an agreement on the need for change, and the process to be employed. The team made the presentation to the staff and the group of dealer, so it was made clear to staff that company was suffering, and would not survive if it did not change.

System setting

The system was set in December 2004. It was taken one day per dealer. The team prepares the area to use in new process and computer with web camera to dealer.

Training

Short one to two day for each training seminars below used to supplement the process.

- **Project Management**

The project manager was trained in project management techniques, either before or while the team action the plan.

- **Principle of Report**

Core of report is provided to technicians to let them know about main idea of TR, detail that need to be filled in, principle of picture they took, and etc.

- **System**

This training course focus on the skills needed to be used in the new process. In order to train about the system, the team goes to pilot dealer and train technician about content of new technical report and new correction process. They set three experiments of the whole process to give participants the chance to use their new skills needed in this new process.

4.2 Data Collecting

After the team gave the presentation, four of each dealer and eight of technician were appointed in this pilot. Their responsibility is to collect data in every step in the new process and also to call the customers after they get their car service for two weeks to ensure that the same problem will not occur again.

4.3 Observed Results

After the system had been implemented, results were collected from this pilot stage. There are two areas that the team concern with; time of the whole process and feed back and quality of service.

- *Time of the whole process*

The data of processes time were explored from Siam Nissan Vipavadee & Siam Nissan Ladplaoow from October to December 2004, before implement, and from January to March 2005, after implement, are addressed as table:

Table 4.1: Correction Process Time of Vipavadee (Oct-Dec04)

Process \ No.	Time (min)															AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
TR Receiving	46	45	53	49	52	45	50	38	48	47	50	46	49	55	47	48.33
Online Correction	10	14	22	15	13	13	11	14	17	13	16	12	14	13	16	14.33
Management Level Approval	52	48	55	-	55	63	54	72	-	39	47	51	49	-	45	42.00
Preparation for Outside Correction	10	8	5	-	9	7	6	8	-	6	9	8	10	-	8	6.27
Request for Company Car	155	200	173	-	128	270	283	196	-	260	108	84	112	-	134	141.53
Travel to Dealer	72	61	65	-	69	75	60	64	-	65	77	60	70	-	75	64.20
Investigate & Repair	7	12	15	-	11	15	18	13	-	14	14	13	10	-	12	10.27
Total	352	388	393	64	337	488	482	405	65	464	323	274	314	68	337	316.93

Table 4.2: Correction Process Time of Ladplaoe (Oct-Dec04)

Process \ No.	Time (min)															AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
TR Receiving	44	50	42	47	40	44	47	45	51	49	45	45	38	48	44	45.27
Online Correction	11	14	12	15	11	10	10	13	12	15	17	14	11	13	16	12.93
Management Level Approval	55	-	53	47	51	49	45	48	42	40	-	-	51	47	45	38.53
Preparation for Outside Correction	8	-	10	12	9	12	11	13	15	10	-	-	15	12	11	9.20
Request for Company Car	92	-	185	204	278	148	192	177	153	215	-	-	194	152	160	143.40
Travel to Dealer	58	-	74	60	63	77	80	65	62	73	-	-	77	63	72	64.93
Investigate & Repair	13	-	15	17	14	15	9	15	17	15	-	-	10	14	12	11.07
Total	281	64	399	402	464	355	394	376	352	417	62	59	396	349	360	315.33

Figure 4.3: Correction Process Time of Vipavadee (Jan-Mar05)

Process \ No.	Time (min)															AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
TR Receiving	8	7	8	8	7	8	8	8	7	9	8	7	7	8	7	7.53
Online Correction	9	7	11	12	8	8	10	15	13	8	17	9	13	9	10	10.60
Connect to Internet	-	1	1	-	2	-	1	1	2	-	1	-	-	1	1	0.73
Investigate & Repair (Web Cam)	-	22	18	-	12	-	18	14	13	-	15	-	-	17	15	9.60
Management Level Approval	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	1.47
Preparation for Outside Correction	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	0.67
Request for Company Car	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	0.33
Travel to Dealer	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	4.80
Investigate & Repair	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	0.73
Total	17	37	38	20	29	14	37	38	155	17	41	16	20	35	33	<u>36.47</u>

Figure 4.4: Correction Process Time of Ladplaw (Jan-Mar05)

Process \ No.	Time (min)															AVG
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
TR Receiving	7	8	7	7	9	7	8	7	8	6	8	7	8	7	7	7.40
Online Correction	11	6	12	15	14	12	17	9	13	15	6	12	10	11	13	12.00
Connect to Internet	1	1	-	1	2	1	-	1	-	1	2	-	1	-	1	0.90
Investigate & Repair (Web Cam)	11	9	-	13	13	15	-	13	-	12	7	-	14	-	13	8.00
Management Level Approval	-	-	-	-	15	-	-	-	-	25	-	-	-	-	-	2.67
Preparation for Outside Correction	-	-	-	-	12	-	-	-	-	10	-	-	-	-	-	1.47
Request for Company Car	-	-	-	-	7	-	-	-	-	8	-	-	-	-	-	1.00
Travel to Dealer	-	-	-	-	73	-	-	-	-	66	-	-	-	-	-	9.40
Investigate & Repair	-	-	-	-	12	-	-	-	-	15	-	-	-	-	-	1.80
Total	30	26	19	36	157	35	25	30	21	160	25	19	33	18	34	44.53

Obviously, the average cycle time of the whole process of Ladplaow and Vipavadee after implementation is decrease 85.88% and 88.49% respectively. This effect from improvement of TR receiving and reducing some of processes; management approval, company car, travel to dealer. It is also an effect of time reduction in online correction process of Ladplaow and Vipavadee that decrease 7.19% and 26.03%. Online correction process is improved than previous because technician can attach the picture to the report and that makes the expert clearly see the point of problem.

- *Service Quality*

Service quality is the very important part of correction process. The team realized that one of the major tasks was to assess the quality of new system. In order to assess how the success of this implementation, they made the survey to check the correction of service and feedback from customer. The survey express in three areas; company, dealer, and customer feed back.

- *Company and Dealer Survey*

This survey objective is to assess the improvement of the work process between dealer and technical centre. Each of staff involved in the process was asked to rate the assessment of the new system on a scale ranging from 1 to 5 prior and after implementation. (1=Poor, 2=Fairly Poor, 3=Fair, 4=Good, 5=Very Good). Result of the survey from technical centre, 12 persons, and each pilot dealer, 8 persons, is shown as below.

Table 4.5: Technical Centre Survey Results

Critical Process	Level ratio										Average
	1		2		3		4		5		
	f	%	f	%	f	%	f	%	f	%	
TR Sending Process											
<i>Convenience</i>	-	-	-	-	3	25%	9	75%	-	-	3.75
<i>Accuracy</i>	-	-	-	-	-	-	12	100%	-	-	4.00
<i>Time-Consuming</i>	-	-	-	-	1	8%	11	92%	-	-	3.92
<i>Effectiveness</i>	-	-	-	-	3	25%	9	75%	-	-	3.75
<i>Overall</i>	-	-	-	-	-	-	12	100%	-	-	4.00
Problem Correction (Web Cam)											
<i>Convenience</i>	-	-	-	-	10	83%	2	17%	-	-	3.17
<i>Resolution</i>	-	-	2	17%	10	83%	-	-	-	-	2.83
<i>Time-Consuming</i>	-	-	-	-	11	92%	1	8%	-	-	3.08
<i>Effectiveness</i>	-	-	-	-	12	100%	-	-	-	-	4.00
<i>Overall</i>	-	-	-	-	12	100%	-	-	-	-	4.00

Table 4.6: Dealer Survey Results

Critical Process	Level ratio										Average
	1		2		3		4		5		
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
TR Sending Process											
<i>Convenience</i>	-	-	2	25%	6	75%			-	-	2.75
<i>Accuracy</i>	-	-	-	-			8	100%	-	-	4.00
<i>Time-Consuming</i>	-	-	-	-	8	100%			-	-	3.00
<i>Effectiveness</i>	-	-	-	-	6	75%	2	25%	-	-	3.25
<i>Overall</i>	-	-	-	-	3	37.5%	5	62.5%	-	-	3.63
Problem Correction (Web Cam)											
<i>Convenience</i>	-	-	3	37.5%	5	62.5%	-	-	-	-	2.63
<i>Resolution</i>	-	-	2	25%	6	75%	-	-	-	-	2.75
<i>Time-Consuming</i>	-	-	2	25%	6	75%	-	-	-	-	2.75
<i>Effectiveness</i>	-	-	-	-	2	25%	6	75%	-	-	3.75
<i>Overall</i>	-	-	-	-	5	62.5%	3	37.5%	-	-	3.38
Training											
<i>Fit to Purpose</i>	-	-	-	-	8	100%	-	-	-	-	3.00
<i>Effectiveness</i>	-	-	1	12.5%	5	62.5%	2	25%	-	-	3.13

- **Other Comments**

- *Not flexible like the previous one*
- *Not convenience in web camera using area*
- *Need more technical training*
- *Etc.*

- **Customer Feedback**

This data was collected from calling to the customers, 15 persons per each Dealer, who brought their car to dealer in the pilot phase. Technician will call the customer after the car receives the investigation and repair for two weeks in order to check service quality.

From the feedback, there is *no return of problem*. The other point of satisfaction is as table below.

Table 4.7: Customer Survey Results

Critical Process	Level ratio										Average
	1		2		3		4		5		
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
Time-Consuming	-	-	-	-	9	60%	6	40%	-	-	3.40
Satisfaction	-	-	-	-	5	33%	10	67%	-	-	3.67
Overall	-	-	-	-	7	47%	8	53%	-	-	3.53

- **Other Comments**

- *Need more quality of product*
- *Need of service spare part in the short of time*
- *Need more model of product*
- *The customer room is uncomfortable*
- *Need more discount and campaign*
- *Need more warranty period*
- *Technician should be able to answer the question*
- *Etc.*

4.4 Example Case (After Implementation)

Roof Drip Water Strip Problem





Figure 4.1: Customer Complaint

Description:

The Customer came to dealer and claim about tear of the roof rubber. He used the car for two months and found that the rubber was destroyed. Therefore the customer wants to change the new roof rubber. Reception records the customer objective and he basically investigate the condition of the rubber that the customer complained.

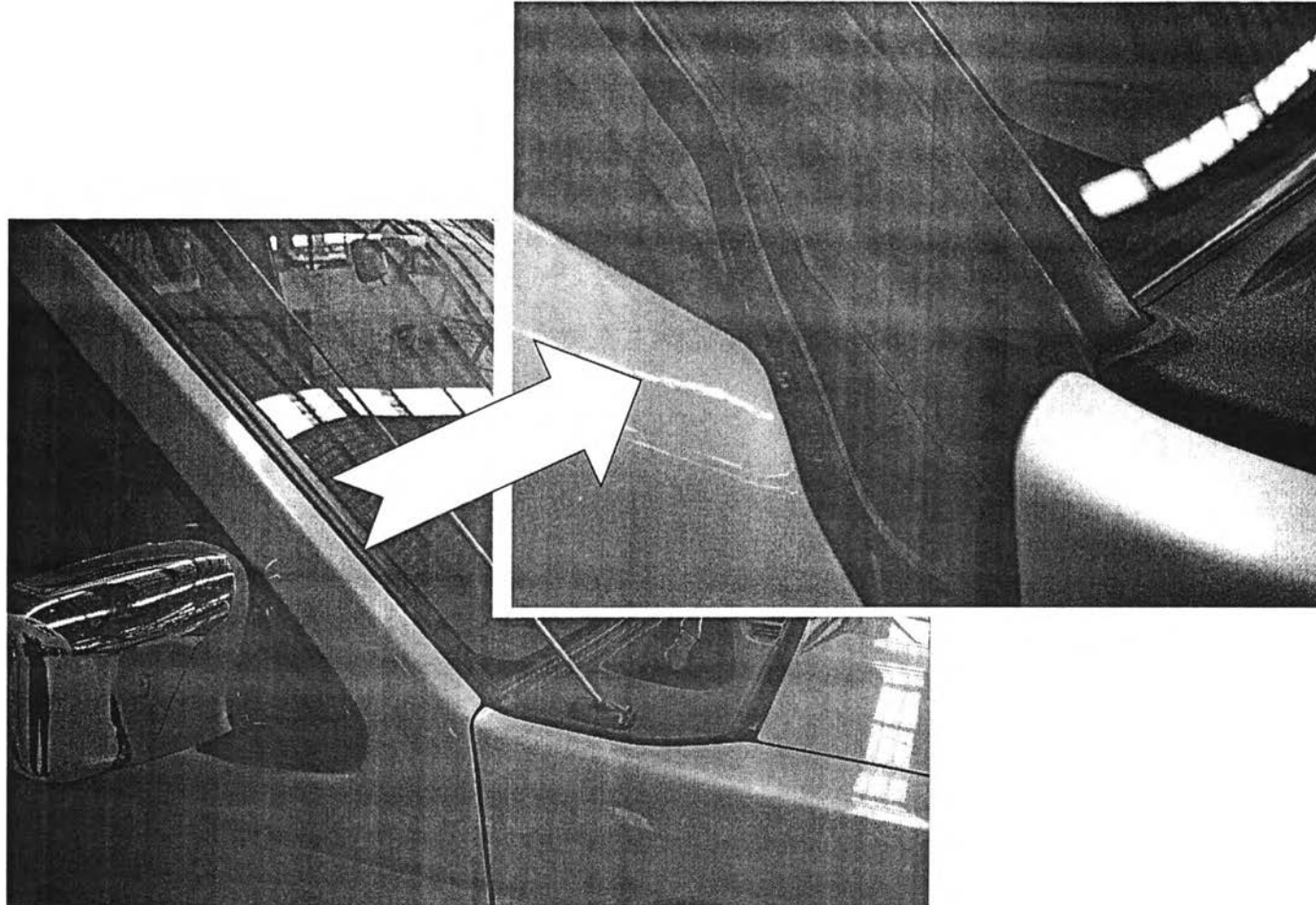


Figure 4.2: Basically Inspection

Description:

The technician performed basically inspection. He analyzed that this occurred from the alignment of the door.

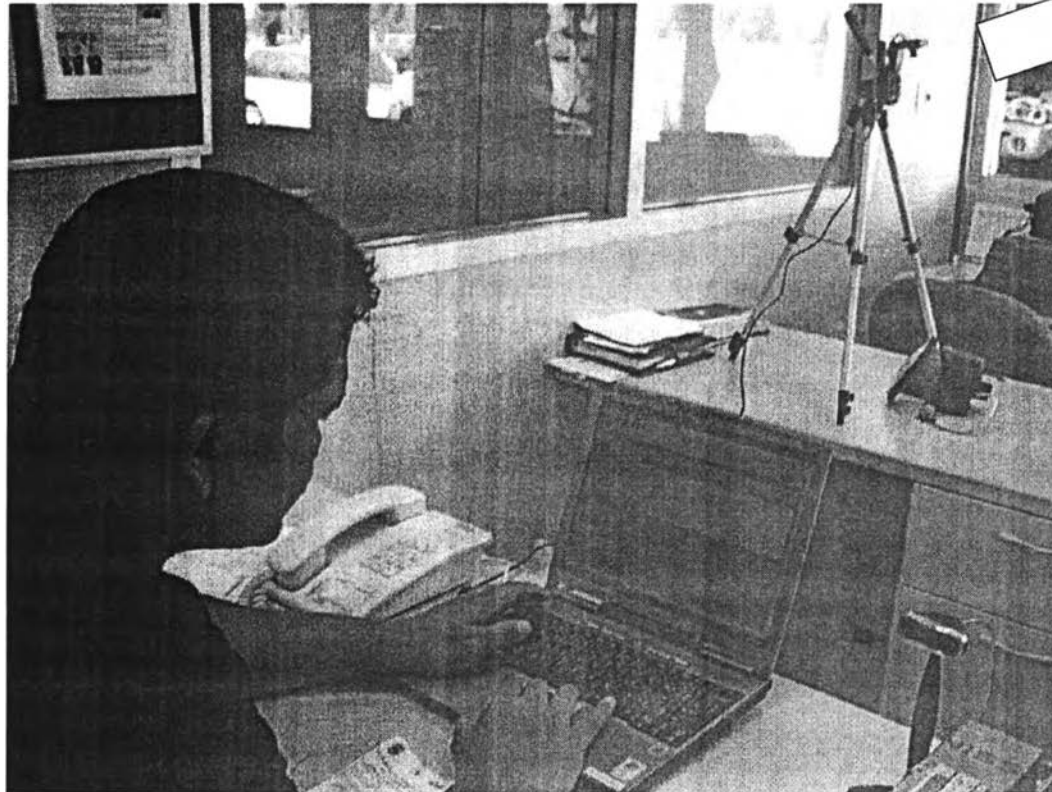
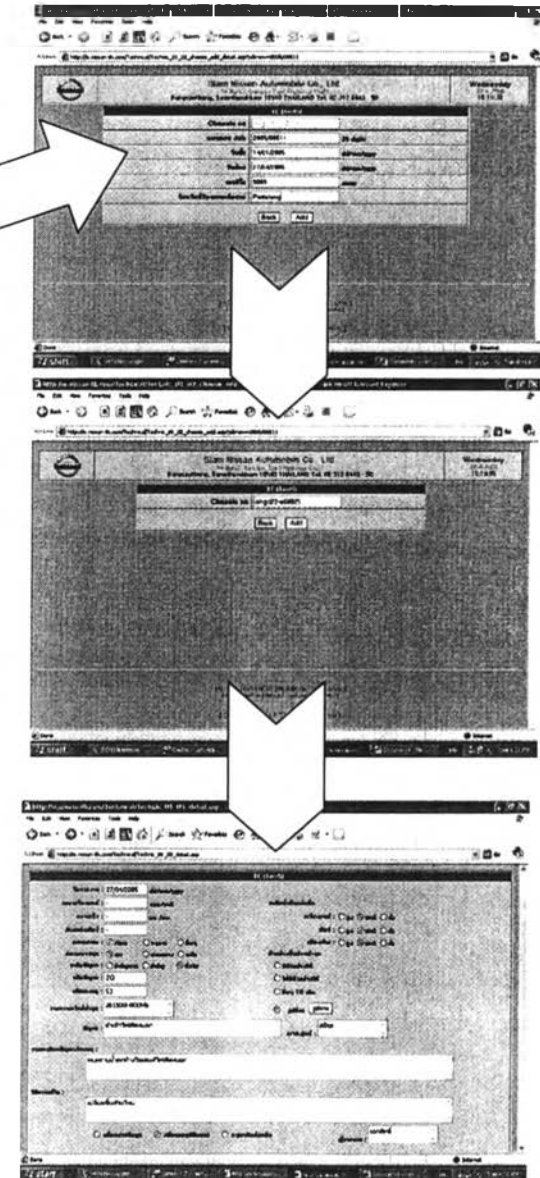


Figure 4.3: Technician keys the detail of customer

Description:

The technician fills Technical Report. The purpose of this report is to request for claim Roof Drip Water Strip.



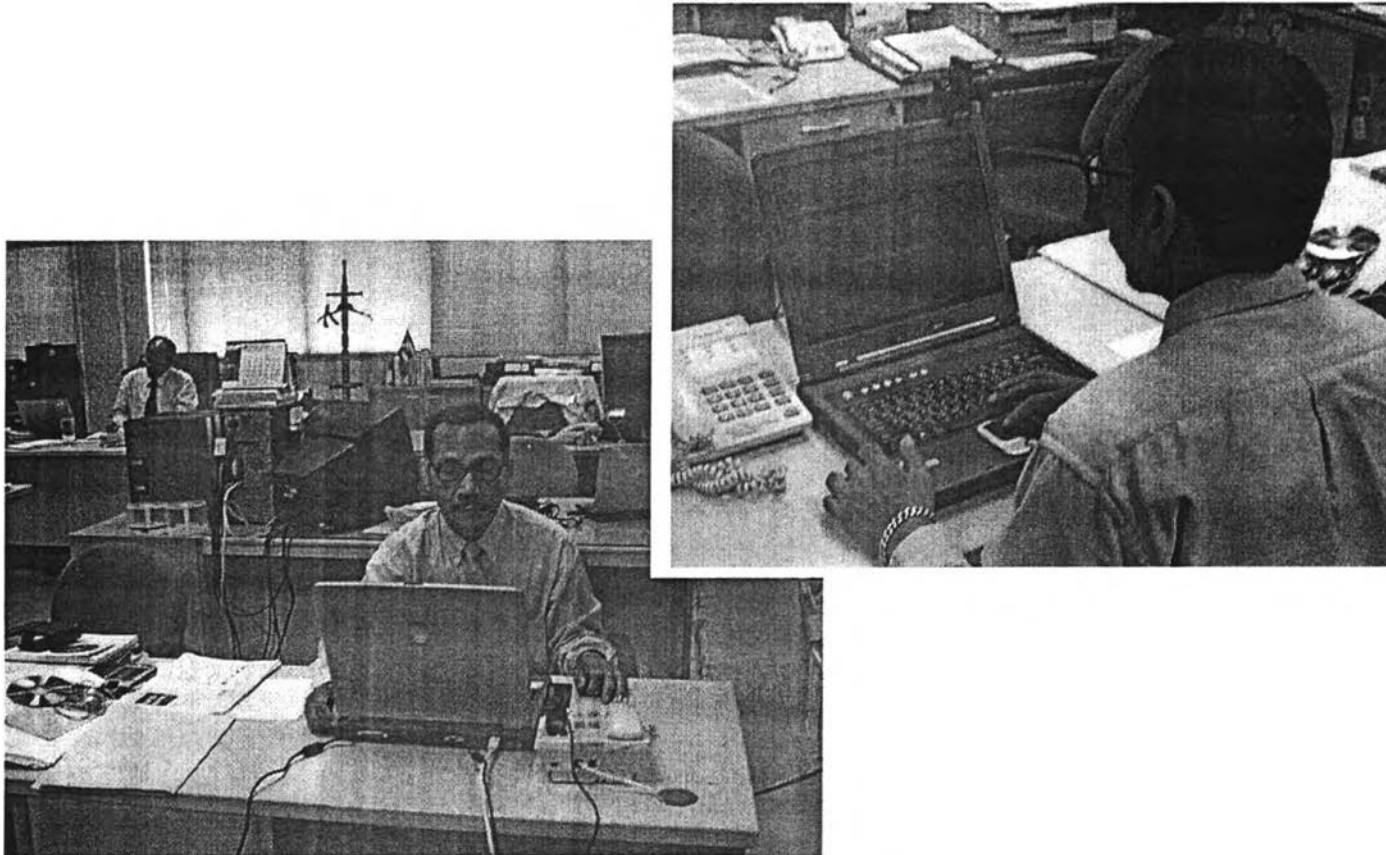


Figure 4.4: Expert was received the technical report

Description:

In a couple of minutes, expert got technical report, which attaching with the picture of the incident. The report is not clearly to identify cause of problem so he asks technician to unassembled the rubber and connect the web-cam to see more of it.

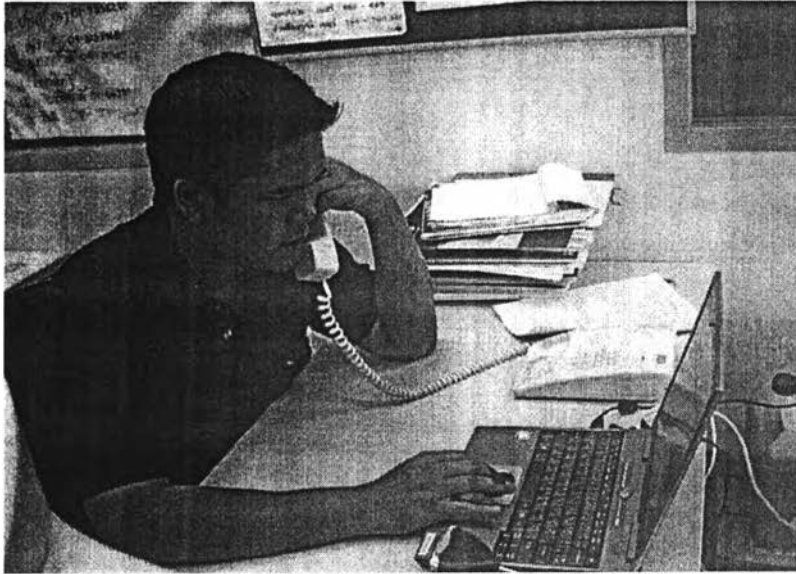


Figure 4.5: Technician was connected by expert to talk about the incident of problem.

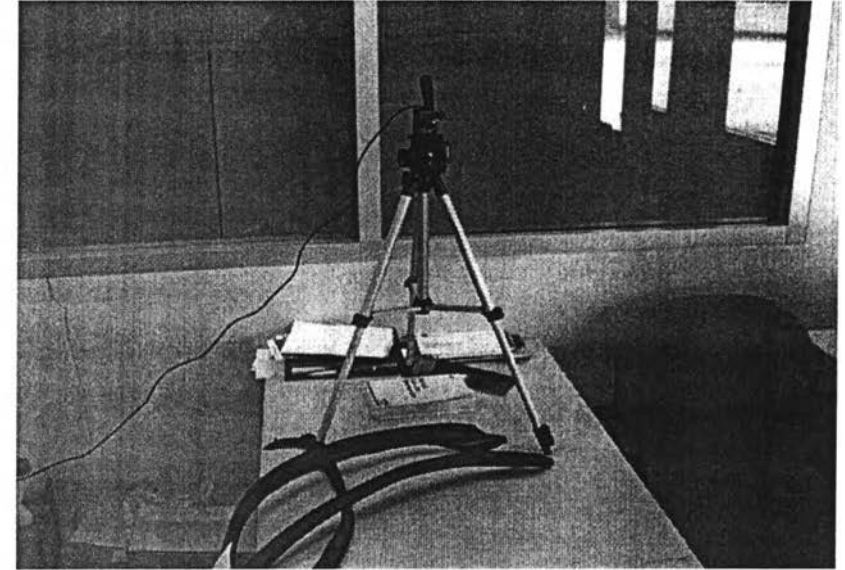


Figure 4.6: Web Camera setting

Description:

Technician received the call of expert, so he set up the camera, which focuses on the roof rubber part

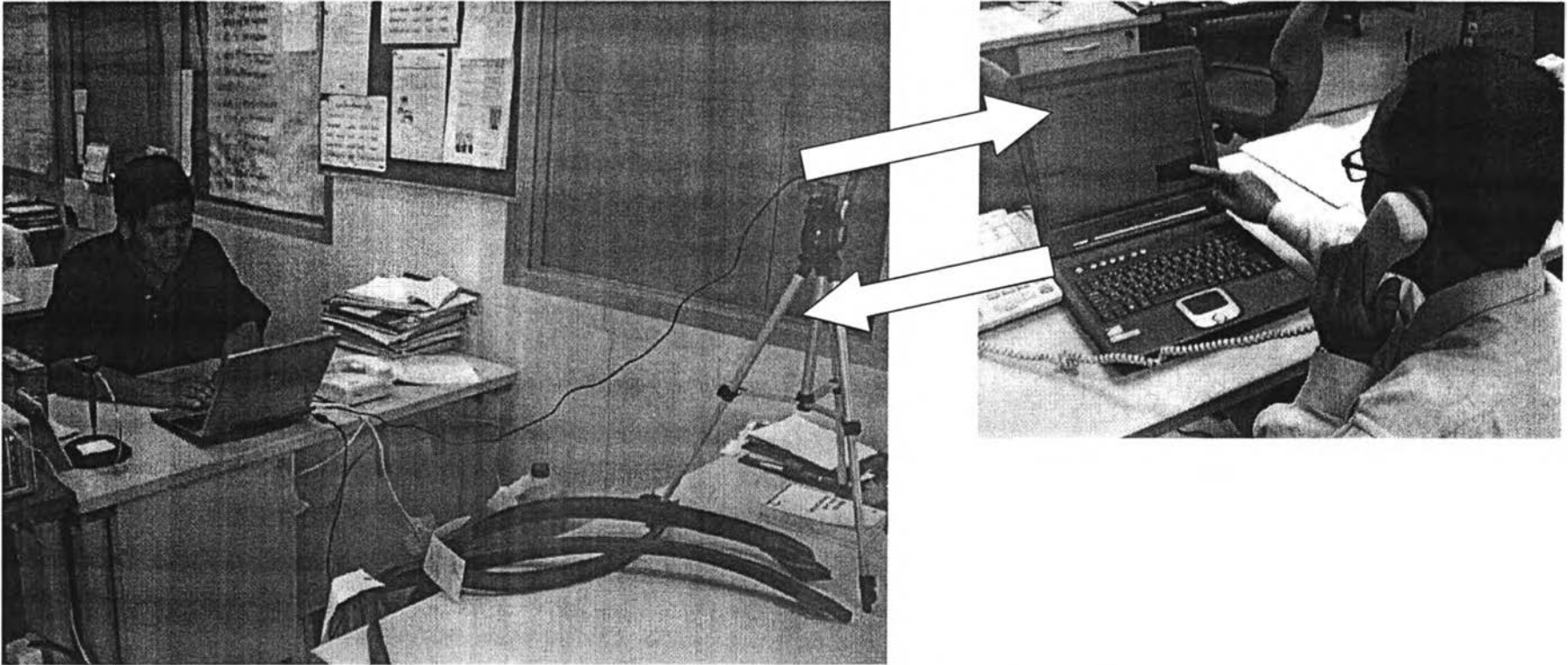


Figure 4.7: Expert analyses the condition of the rubber

Description:

After expert see the web cam picture, which was focused the entire angle he want, so he clearly see the position of the tear so he give the approval to technician. And recommend for position point to correct the problem.

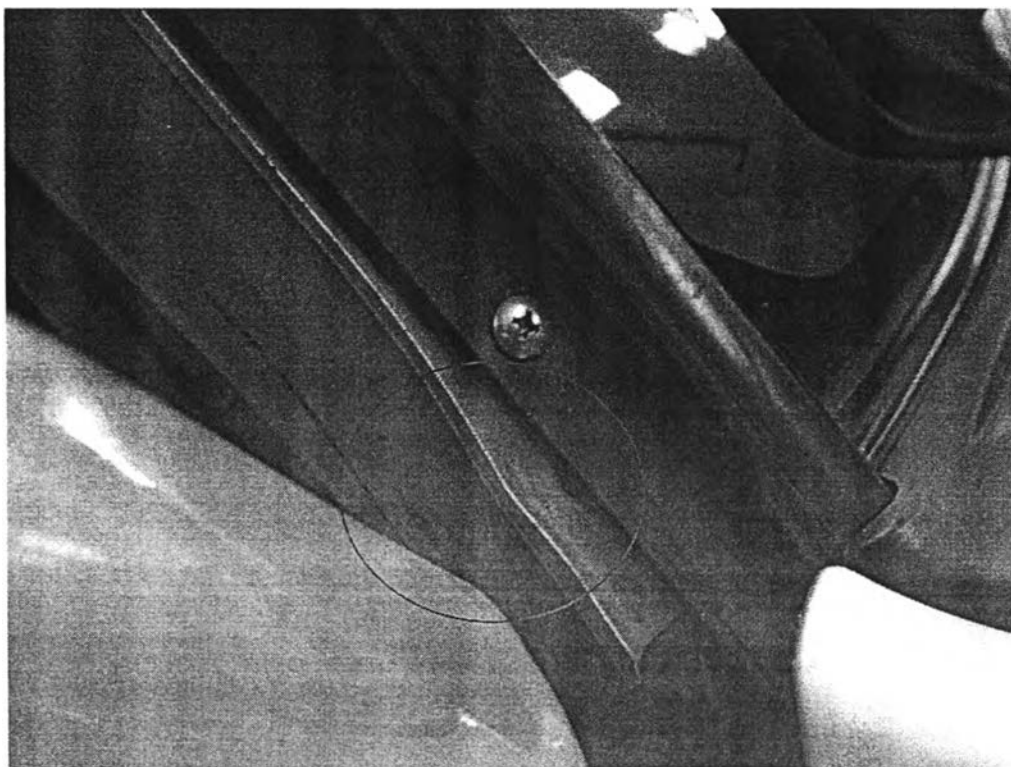


Figure 4.8: Door is not alignment
(additional Picture)

Description:

The cause of problem is the alignment of the door. It is not the mistake of the roof rubber producer but manufacturing.