

CHAPTER 7

CONCLUSION AND RECOMMENDATION

7.1 Thesis Conclusion

The main objective of this thesis is to introduce the company to the Kano model of quality theory and adopt the model to suit company's environment. Kano model is made up of three distinguish attributes, where level of customer's satisfaction is the indicator of whichever the attribute; 1st "Must-be" attribute is the primary needs, 2nd "One-Dimensional" attribute the more things are provided the more satisfaction customers are, finally 3rd "Attractive" attribute the ability to provide the unforeseen product and/or service that customers not yet have demand for such. The aim of the thesis is to meet expectation, satisfy, and delight/excite customers according to these various stages.

Base on a similar framework as Kano model, this thesis has been set out in to three STAGEs in the same way that Kano model has three attributes. In the thesis each STAGE represents customers' attitude/satisfaction towards a certain action, task and responsibility that company do, which are as follow:

STAGE 1 when customers purchase swimming pool from company they expected that all the primary features are to be working perfectly, otherwise customers would be disappointed because their primary expectation have been failed by not getting what was paid for. Such a disappointment (customer survey) was largely caused by a random occurrences of problems (past data) defined in Chapter 4 and according to Pareto analysis *Problem 18 – Water in the swimming pool not clean and clear*, *Problem 14 – Floor tile is not laid down properly/perfectly* and *Problem 11 – Water pump machine breakdown or faulty* were the problems that seek for immediate resolution. A problem solving team was formed to closely analyse the chosen problems and with the help of problem solving tools such as Cause and Effect diagram (Ishikawa fish bone) and the Why-Why analysis, root causes of the three problems were identified and all of the problems were proposed with

the most appropriate solutions, however, only Problem 18 and 11 were implemented, while Problem 14 was not. After the implementation of Problem 18 and 11, customers were questioned (Customer survey on Implementation) before and after the implementation in which improvements is evident below:

Problem 14 - Floor tile is not laid down properly/perfectly, the analysis had identified the root cause of the problem to be the fault of the blue collar work force and subcontractor's lack of responsibility to control their work force. In resolving this problem author and the problem solving team suggested that there should be an evaluation on subcontractor base on their performance, costs, quality and other factors prior approving as qualified subcontractor. The time factor necessary to evaluate subcontractor usually take no longer than a year nor would it be appropriate if the evaluation period (probation period) is anytime earlier than 6 months. Hence author was unable to implement solution proposed for Problem 14, because the least required evaluation period is 6 months, and any shorter evaluation period would not reveal real subcontractor's identity. Since time was the constraint, Problem 14 was not implemented but instead it was only dealt with to the extent that it would be ready for future implementation, and so author could only propose Subcontractor Evaluation Form, which was created through group meeting of problem solving staffs and together came up with 11 evaluating criteria in which subcontractors' performance would be rated on (refer to Appendix 2 under Proposed Solution section for Subcontractor Evaluation Form).

1. Customer satisfaction and system manoeuvring ability were increased.

Table 7.1 - Rating on Improvement

Determined category	Before (Mean rating)	After (Mean rating)
1. Ability to operate systems without technical helps?	4.25	7.20
2. Ability to use & handle machines correctly?	4.55	7.10
3. Ability to use & handle machines quickly?	3.85	7.15
4. Ability to understand what you are required to do (e.g. operating procedures)?	5.15	6.85
5. Ability to operate machines without causing problem/breakdown?	4.15	6.40
6. Ability to perform water treatment tasks involving chemical products correctly?	4.05	6.80
7. Ability to perform basic cleaning tasks properly?	5.15	6.75
8. What would you rate company for the effort in trying to help you operate machines?	4.25	7.20
Mean Mean Rating	<u>4.425</u>	<u>6.931</u>

A Comparison of customers' rating on eight categories BEFORE and AFTER Implementation

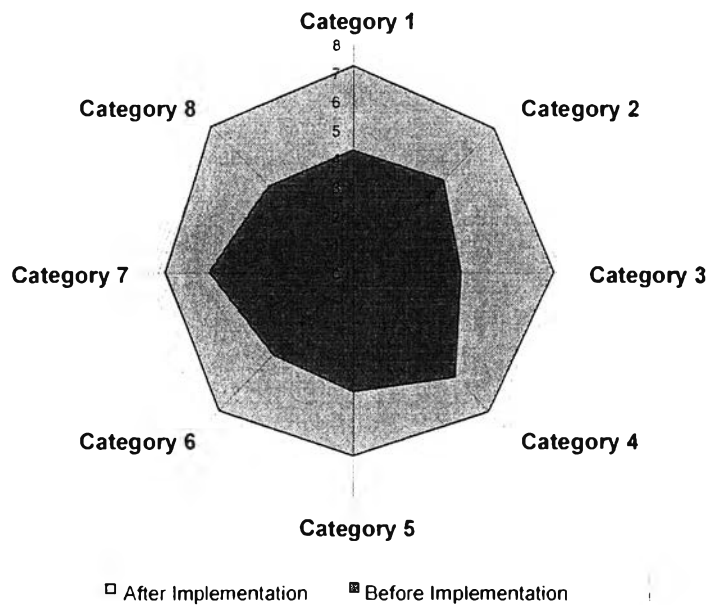


Figure 7.1 - Radar chart showing improvement on BEFORE and AFTER Implementation

- 2. The total customer complaint of the two months implementation has been reduced to 0 complaint

Problem 18 – Water in the swimming pool not clean and clear

Table 7.2 - Improvement in customer complaint on Problem 18

<i>Comparison of Result After Implementation for Problem 18</i>				
<i>Problems</i>	<i>Before</i>			<i>After</i>
<i>When</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>
October	3	4	3	0
November	3	3	2	0

Reduction in the number of Occurrences during the two months implementation period

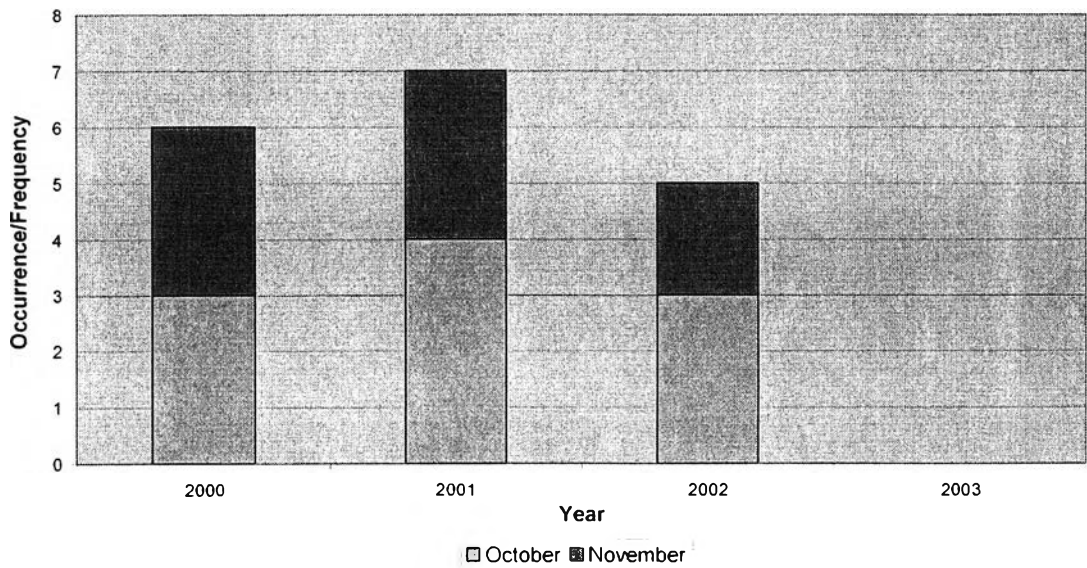


Figure 7.2 – Reduction in the number of customer complaint on Problem 18

Problem 11 – Water pump machine breakdown or faulty

Table 7.3 - Improvement in customer complaint on Problem 11

<i>Comparison of Result After Implementation for Problem 11</i>				
<i>Problems</i>	<i>Before</i>			<i>After</i>
<i>When</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>
October	2	3	3	0
November	2	2	3	0

Reduction in the number of Occurrences during the two months implementation period

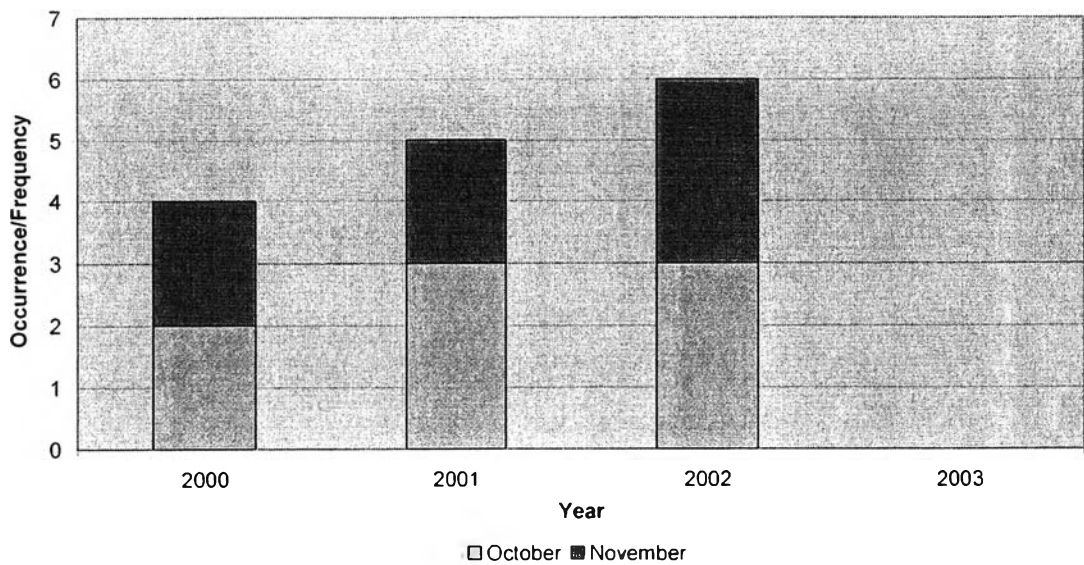


Figure 7.3 – Reduction in the number of customer complaint on Problem 11

STAGE 2 customer satisfaction is proportional to value added, meaning that the more value added customers benefited from the purchase the more they are satisfied with the company. The principle of value added in this thesis was focused at the after sale, what additional product/service or even program beside the ordinary purchase is to be given in benefit to the customers in order to satisfy them even more. In recommending appropriate solutions suitable for this stage, author and along with the associating functions such as Sales, Technician, QA, and Designer together brainstorm several criteria as well as benchmark product and/or service against other companies' that thought would satisfy customers even more, which is proposed in Chapter 5 as action plan **Proposed Solution for STAGE 2**. The proposed solutions were then validated by customers through the use of questionnaire (customer survey on interest) and the finalised action plan is presented in Chapter 6 under the heading **Revised Proposed Solution for STAGE 2 (Section 5.2)**. Customer validation of the proposed solutions obtained from the survey are summarised in the table below (where 10 is most desirable and 1 is least desirable).

Table 7.4 – Summary of customer rating on proposed solution to STAGE 2, as obtained from the survey

Proposed Solution	Customer Rating from Customer Survey on Interest
Sales Representative are to become more Customer-Centred	All the customers voted for this particular option 10
Free maintenance package: Pool keeping, check up and maintenance	Impressive response from customers 8
Offer opportunity to join up for a membership card	A fair interest shown by customers on the criteria and the offer so was rated at 7
Extend manufacturing warranty period to 3 years	The majority was pleased but not excited by it therefore was rated at 7

STAGE 3 what must be done to excite/delight customers through the use of product and/or service. Similar process to STAGE 2, criteria of the proposed solution to STAGE 3 must result in customer excitement and delightedness, which must be beyond their expectation. The ability to be the first company to introduce fascinating technology and/or new level of service that customers have not yet become aware of their needs'/wants', thus providing them solutions of this nature would excite them and accumulate satisfaction or greater scale than the solution proposed in STAGE 2. Again author and the team sit around a ground in the meeting as well as benchmark internationally with foreign companies from Italy and America, which enable the team to formulate new exciting/delighting features to product and/or service, which were then proposed as an action plan in Chapter 5 under the heading **Proposed Solution for STAGE 3**. The initial proposed solutions were validated against 20 customers (customer survey on interest) for their feedback and interest which the useful feedback enable author and the team to revise and finalise more accurate action plan presented in Chapter 6 under the heading **Revised Proposed Solution for STAGE 3 (Section 5.3)**. Also refer to Table 7.5 below for customer validation summary.

Table 7.5 - Summary of customer rating on proposed solution to STAGE 3, as obtained from the survey

Proposed Solution	Customer Rating from Customer Survey on Interest
Special occasion greeting	Customers will be excited only for the first two years 7
New attraction for product development – swimming pool floor customised painting	Majority of customers rated in favour of this solution 9
New added feature for swimming pool – automatic floor cover	A fair interest of customers voted for this solution 7

7.2 Thesis Support & Constraint

7.2.1 Team work – Author would not be able to analyse, identify, and propose solution to the problems this quickly if it was not because of the support provided by the staffs offered from various functions, who had put a lot of effort into the finding of root cause and together help resolve problems.

7.2.2 Business structure - Since the market has got extremely competitive than ever before, ABC must understand and accept the fact that business under a family management is limiting the company from other sources of brain. The management team (family) should open up their mind, by mean of giving staff members' opportunity to express new thoughts and accept fresh ideas from those, who deal directly to work. Furthermore, company as a whole this should include the top management working and supporting along side other functions and together concurrently working slowly towards other problems in order to fulfil customers' primary expectation.

7.2.3 Time factor – Proper implementation required all the time that is needed in order to analysed and resolved the problems correctly. Inadequate time can limit the team to finding the real root cause to the problems.

7.3 Recommendation for Further Research

7.3.1 Benchmarking - Author recommends that the company continuously in search for more interesting and exciting criteria for both the STAGE 2 and STAGE 3 as overtime, those proposed solution will soon become customers' primary expectation. Therefore, author sees further opportunity to perform serious benchmark against other companies of different business nature.

7.3.2 Servicing - GSP "Good Servicing Practice" having dealt with customer satisfaction throughout the thesis, author is able to realise the importance of customer service and how it can tremendously maximise customer satisfaction. Especially in the future companies would be competing against one another through service. So author sees this opportunity to recommend further research on all-round service in whatever industry the business is in.