

# Study of lift market through GAP analysis

*by Niken Parwati*

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## STUDY OF LIFT MARKET THROUGH GAP ANALYSIS

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### ABSTRACT

*This study was conducted with cooperation with local company name X whose produce lift. Their product champion are passenger lifts. Now, they were struggling with decline sales. So the company wants to know about their current product performance in the market. Study was made for their product champion, passenger lift. Then this study conducted a survey to know the customer satisfaction level of existing product and what the customer expectation. After this, gap analysis was conducted to know which part of the product should be improve.*

*Key words: existing product, expected product, gap analysis*

### 1. INTRODUCTION

Due to decreasing sales for passenger lift in company X since 2013, company wants to know the market real situation and also make sure that they are already made the real decision in marketing operation.

This study began with market identification by conducting market research in passenger lift from November until Desember 2015 for 30 company in Jakarta, Bogor, and Tangerang.

This study also conduct basic analyses to create effective marketing strategy: gap analysis existing vs expected product.

Gap Analysis is a comparison between actual performance and potential performance or expected performance. This method is tools to evaluate business that focus on gap between recent company performance with target performance. This gap analysis also identified what action needed to reduce gap and reach future performance goal. Sometimes this analysis also predict time, cost, and resource needed to reach company goal<sup>(b)</sup>

### 2. THEORETICAL BACKGROUND

#### 2.1 Market Definition and Marketing Management

From management point of view, marketing is organization function and series of process to create, communicate, and bring values to customer and to manage relationship with customer to create profit for shareholder. Marketing management is the art and knowledge to chose target market and to attain and cultivate customer through creation, delivery and communication of excellent value to customer<sup>(a)</sup>

#### 2.2 Gap Analysis

### 3. RESEARCH METHOD

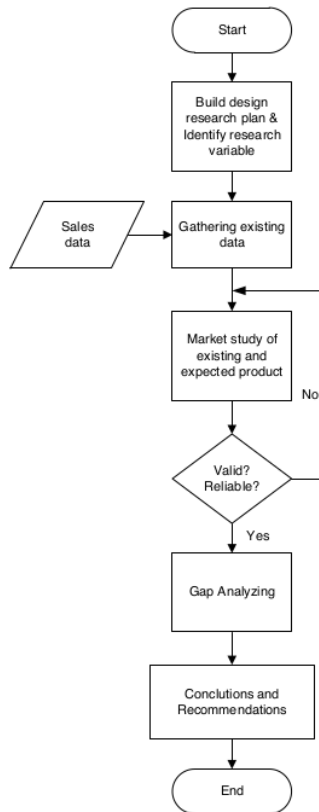


Figure 1. Research Flowchart

PT X was a local company that produce lift with brand X. passenger lift, home lift, bed lift, dumbwaiter dan freight lift.

Based on managerial data in PT X, sales of all lift type was significantly decreasing. The company want to increase their sales. To resolve this problem they want to know their lift performance according to the market. And also to know what level of performance the market wants.

This study would make an gap analysis between existing product vs expected product based on market research. This study will focus on passenger lift that have the biggest sales.

#### 4.1 Garvin Dimension Priority Ranking

To sharpen the market research, the questionnaire was designed to be simple and concise and effective. It designed to use selected Garvin dimension that according to management was important. The selection process was using AHP. The 5 dimension that already chosen was describe in Table 1. Based on table 1, comparison result of every element will be between 1 to 9, that show the rank of the element. When an element were compared with themselves, the value will be 1. Scale 9 show that it proven to be accepted and could distinguish between element intensity.

Important rank data were processed with expert choice software. Figure 2 was the result of data processing using expert choice software.

#### 4. RESULT AND DISCUSSION

Table 1. Garvin Dimension Priority Ranking According to PT. X Management

Garvin Dimension	Performance	Durability	Serviceability	Aesthetic	Perceived Quality	Conformance	Realiability	Features
Performance	1	1	3	3	5	1	1	7
Durability	1	1	3	7	7	1	1	7
Serviceability	1/3	1/3	1	7	3	1/3	1/3	3
Aesthetic	1/3	1/7	1/7	1	1/3	1/7	1/5	1
Perceived Quality	1/5	1/7	1/3	3	1	1/9	1/5	3
Conformance	1	1	3	7	9	1	7	9
Realiability	1	1	3	5	5	1/7	1	9
Features	1/7	1/7	1/3	1	1/3	1/9	1/9	1

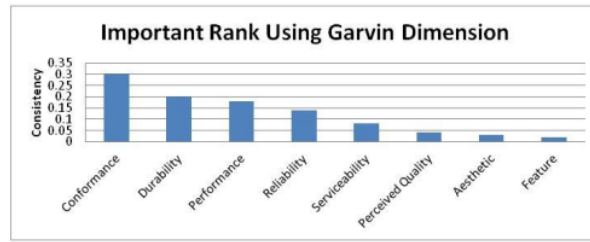


Figure 2. Important Rank Using Garvin Dimension

From that calculation, consistency value obtained was 0,08, so we could rank that the first priority was conformance, with value 0,306. The second rank of Garvin dimension is durability with value 0,199. The third dimension was performance with value 0,176, the fourth dimension was reliability with value 0,135 and the fifth dimension was serviceability with 0,087 value.

After determined the five Garvin Dimension, the next step was to determined attributes for every dimension. The 5 dimensions attributes chosen priorities could be seen in These attributes will be used as based for the questionnaire.

Table 2. Dimension Garvin Attributes

No	Attributes
<i>Performance</i>	
1	Minor disruption while operating
2	Optimal operational safety
3	Non noise and low energy lift
4	Lift speed
5	Lift capacity as written on the cabin
6	Responsive button
<i>Conformance</i>	
7	Consistency between offering specs and what they get
8	Conformity between design offering with the installed lift
9	Conformity between quality the customer get with the customer paid
10	Lift type that continuously produced
11	Up to date interior design
12	Customized product especially for disabled people
13	Consistency product quality
<i>Reliability</i>	
14	Product installed is perfect
15	Product performance still optimal after several years.
16	Complete product warranty
17	Minor malfunction and no repeated malfunction
<i>Durability</i>	
18	Qualified product material
19	Spare part durability
20	Interior material durability
21	Lift lifetime as mention or longer than what is offering
<i>Serviceability</i>	
22	Quick response services
23	Hospitality customer service
24	No discrimination while serving the customer
25	Simple procedure while complaining or asking for repair
26	Rarely maintenance
27	Fast moving spare part always available

#### 4.2 Respondent data for Expected Product

Expected product is what the customer wants to have. The market study was using questionnaire and interview 30 respondents, with convenience method. The respondent are technician, engineer manager, owner estimator, top management, architect, and building management. The result of this questionnaire could be seen in table 3. Respondent could choose the rank of important for every Garvin dimension with Likert scale.

Table 3. Expected Product

Scale	Explanation
5	Very Important
4	Important
3	Moderate
2	Not Important
1	Not required

#### 4.3 Respondent Data of Existing Product

Existing product is the real value of the product performance now. With 30 respondents, using convenience methods. The respondent were the same with the previous one: technician, engineer manager, owner estimator, top management, architect, and building management. The result of this questionnaire could be seen in table 5. Respondent could choose the rank of important for every Garvin dimension with Likert scale.

Table 5. Likert Existing Product Scale

Scale	Explanation
5	Very good
4	Good
3	So so
2	Not good
1	Bad

**4.4 Data Calculation**

After collecting the data, we did validation and reliability test then we did data processing to analyze the gap.

12	2.96	3.10	-0.14
13	3.01	3.23	-0.22
14	3.28	3.07	0.21
15	3.33	3.17	0.17
16	3.44	3.10	0.34
17	3.65	3.10	0.55

**4.4.1 Validity and Reliability Expected and Existing Product**

1. Validity and reliability tes of expected product were done using Spearman Correlation. With 30 respondent, r calculation>r table 0,361, then we could conclude the result all is valid. And reliability test , using Cronbach's Alfa 0.752 > 0.7 the result also reliable, it mean the respondent answer the questionnaire consistently.
2. Validity and reliability tes of existing product were done using Spearman Correlation. With 30 respondent, r calculation>r table 0,361, then we could conclude the result all is valid. And reliability test , using Cronbach's Alfa 0.751 > 0.7 the result also reliable, it mean the respondent answer the questionnaire consistently.

Tabel 7. Gap Analysis Lift Passenger Brand X Continue

rComputation	rTable	Explanation
3.33	3.23	0.10
3.28	2.93	0.35
3.07	2.70	0.37
3.36	3.00	0.36
3.68	3.23	0.45
3.31	3.13	0.17
3.39	3.20	0.19
3.41	3.13	0.28
3.23	3.20	0.03
3.65	3.00	0.65

**4.5 Gap Analysis**

Gap analysis were obtained from the previous data, that compare performance between expected vs existing product of the passenger lift.The comparison based on 5 Garvin dimension, with 27 attributtes that had been choosen according to the important level to the company. Gap value were computed as the different between expected product with existing product, as written in Table 6 below.

Based on Table 6 could be identified that value for attribute 6,7,10,11,12, and 13 which were -responsive button, consistency between offering specs and what they get, lift type that continuously produced, customized product especially for disabled people, consistency product quality – all were already above expectation. And the other attributes had not been reach the market expectation. Therefore performance of those attributtes should be increased. Figure 3 show the relation between existing performance and expected performance of the product.

Table 6. Gap Analysis Lift Passenger PT X

Attribute no-	Expected	Brand X Existing	Gap
1	3.31	3.13	0.17
2	3.55	3.03	0.51
3	3.33	3.07	0.27
4	3.36	2.73	0.63
5	3.31	3.10	0.21
6	3.23	3.27	-0.04
7	2.99	3.33	-0.35
8	3.36	3.00	0.36
9	3.36	3.07	0.29
10	3.01	3.10	-0.09
11	2.72	2.70	0.02

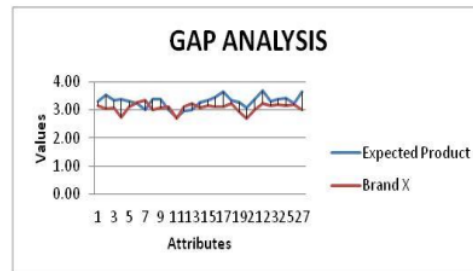


Figure 3. GAP Analysis

From the later discussion with production manager and marketing manager, could be concluded the average cause of the problem, as written below:

1. The company fail to respond to the customer complain. Low quality of layer paint
2. Lack of fast moving spare part inventory
3. Some lift already obsolete, need more attention and maintenance
4. Unattentive technician in customer service
5. Lack of technical skill in problem analytical
6. Customer service discrimination
7. Several lift malfunction when operated: stop in the middle of operation, out of power also in the middle of operation.
8. Lift design less artistic compare to their competitor

## 5. CONCLUSION

There were several attributes of the brand X already fulfilled the expected performance: responsive button, consistency between offering specs and what they get, lift type that continuously produced, customized product especially for disabled people, consistency product quality. And the others were still below expected performance. The company management already informed and plan several improvement.

## 6. ACKNOWLEDGMENT

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