



# Implementing QFD for improving service quality and social fund management

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## ABSTRAK

Fokus utama penelitian pada Yayasan Dana Sosial "X" adalah mengembangkan dan meningkatkan kualitas layanan dengan mengidentifikasi atribut jasa pelayanan yang akan dikembangkan dengan sarana dan prasarana yang dimiliki oleh yayasan. Metode yang digunakan adalah dengan menerapkan *Quality Function Deployment (QFD)*. Setelah survey dan melakukan wawancara, kemudian mengolah kuisioner yang telah diisi oleh responden donatur sehingga menghasilkan *Voice of Customer*. Selanjutnya mengolah data dengan metode QFD. Penelitian ini menghasilkan: 1) Atribut "Transparansi" sebagai atribut dengan tingkat kepentingan paling tinggi dengan nilai sebesar 4,62. 2) Atribut "Program Layanan Donatur" merupakan atribut jasa yang diprioritaskan untuk ditingkatkan kinerjanya dengan nilai sebesar 4.65129. 3) Respon teknis berupa "Laporan Penerimaan/Pengeluaran Rutin ke donatur" menjadi prioritas utama untuk ditingkatkan kinerjanya dengan nilai 3.00852 dan kontribusi ternormalisasi sebesar 15.9%. Implikasi strategis penelitian ini adalah yayasan dapat membuat kebijakan untuk meningkatkan kinerja atribut-atribut tersebut sehingga dapat meningkatkan kepuasan dan loyalitas donatur.

## ABSTRACT

The research conducted at Foundation X aimed to develop its services to improve the quality by identifying the attributes of the services and describing the facilities. The analysis used Quality Function Deployment (QFD). Following the preliminary survey and interviews, questionnaires were then distributed to respondents (consumers) to determine the voice of customers. Furthermore, the data were processed using QFD. The research results are as follows: 1) Transparency is the attribute with the highest importance level and with a value of importance of 4.62; 2) the Donor Service Program is the service attribute with the top priority to be developed or improve the performance and with a weight value of 4.65129; 3) the Report of Revenue/Routine Expenditures to Donors is the technical response with the top priority to be developed or improved, with a priority value of 3.00852 and a normalized contribution of 15.9%. Implication in research refer to the foundation can make policies to improve the performance of these attributes so that it can increase donor satisfaction and loyalty.

## I. INTRODUCTION

One of the targets of religious affairs development in the National Medium-Term Development Plan (RPJMN) of 2020-2024 is to improve the quality of religious education, religious services, and the religious role in national development [1].

The Social Fund Foundation X of Surabaya (*Yayasan Dana Sosial X Surabaya ~Ind.*) is an amil zakat institution that collects Muslim funds and channels them for dawah and humanitarian activities. The total number of donors has amounted to thousands since its establishment a dozen years ago. So far, some of the benefits of social funds collected include supporting the activities of dawah, education, and economic empowerment of people experiencing poverty.

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The challenges often faced are transparency and accountability in managing funds since some still do not believe and doubt the professionalism of this institution; moreover, the HR management is considered unprofessional. Other issues related to programs and objectives in managing these funds are still focused on consumptive and short-term-oriented problems that have not yet been planned for long-term investment and non-optimal distribution.

Concerning the very strategic role of the institution as a form of actualization of practicing religious teachings that also supports national development in the form of poverty reduction, this institution is aware of the importance of improving the quality of fund service and management so that the distribution and utilization are more targeted, can increase community's trust, and can be developed in the form of long-term investment [2].

Consumer involvement is needed in the approach taken to achieve continuous quality improvement (in this case, the donors) in developing services as an element of the key [3]. The participation of donors is the main objective of the Quality Function Deployment method. This method makes customers/donors part of the company's product/service development cycle.

Research related to QFD in non-profit organizations has often been carried out, but there has been no research on social fund management and distribution organizations where donors are the main key to the sustainability of social programs organized by the foundation, so this research is important to be conducted. The contribution of donors as respondents in the application of the QFD method in this study produces data in the form of which attributes receive priority importance to improve their performance. The purpose of the QFD method in social foundation services is to know the needs and desires of donors so that foundations can develop and make policies to improve service performance that has an impact on increasing donor satisfaction and loyalty.

## II. MATERIALS AND METHOD

### Validity and Reliability Test.

The first step is to identify whether the questionnaire created is valid and reliable. Identify using SPSS 22 software. The sample used in this study is 50 respondents.

From the results of the validity calculation, it is known that all statement items used to measure consumer expectations and the reality of service quality have a corrected total item correlation value above 0.361, so that all statement items can be declared valid and can be used to measure service quality. Meanwhile, the cronbach alpha value for expectations is 0.994 and 0.958 for reality. Thus, it can be said that the questionnaire is reliable and can be used to measure the level of expectations and reality of respondents because the cronbach alpha value is  $> 0.6$ .

### Identification Using QFD

QFD is a structured method used in the product planning and development process to determine the specifications of consumer needs and wants, as well as evaluate a product in meeting consumer needs and desires.

The data is processed using the QFD (Quality Functional Deployment) method, i.e., customer voting through observation, interviews, and questionnaires. The next was making the House of Quality by compiling customer characteristics (Whats), technical characteristics (Hows), relationship matrix, determining How Muchs (Goal), technical correlation matrix, importance rating, and column weight. This resulted in a conclusion: what attributes are needed, and what needs improvement to improve services.

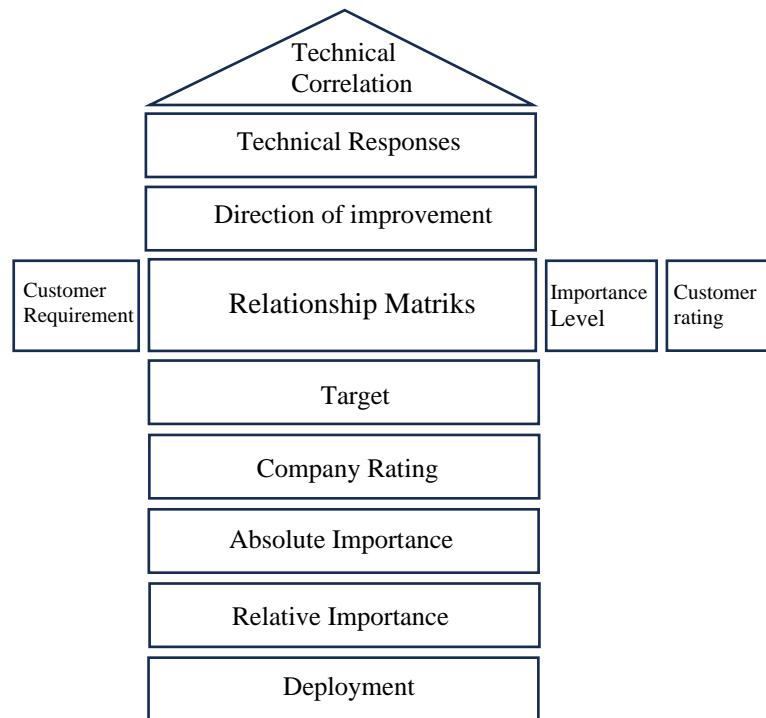


Figure 1. House of Quality

### III. RESULT AND DISCUSSION

After the respondents' data has been collected and tested for validity and reliability, the data will be used as material for the formation of a planning matrix.

#### 1. Level of Importance of Service Attributes (*Relative Importance Rating*)

The ranking order of the importance of service attributes can be seen in table 1.

Table 1 Ranking Order of Relative Importance Rating

No.	Service Attributes	Importance	Ranking
1.	Transparency	4.63	1
2.	Accountable	4.51	5
3.	Service Distribution	4.49	8
4.	Target Accuracy	4.50	7
5.	Donor Services Program	4.52	4
6.	Dhuafa Service Program	4.55	3
7.	Easy Access to Donation Services	4.51	6
8.	Professionalism	4.57	2
9.	Informative & Communicative Officer	4.48	9

#### 2. Competitive Priority Level Determination (*Competitif Priority Ratings*)

The performance of the above attributes obtained the average value of respondents which can be seen in table 2.

Table 2 Competitive Priority Level Value (*Competitif Priority Ratings*)

No.	Service Attributes	Company Foundation "X"	Competitor Foundation "Y"
1.	Transparency	3.81	3.77
2.	Accountable	3.51	3.49
3.	Service Distribution	3.55	3.58
4.	Target Accuracy	3.62	3.58
5.	Donor Services Program	3.52	3.63
6.	Dhuafa Service Program	3.65	3.52
7.	Easy Access to Donation Services	3.65	3.71
8.	Professionalism	3.66	3.57

9.	Informative & Communicative Officer	3.77	3.65
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### 3. Service Attribute Target Value

The target value is an objective that will be used to reach the rating of performance of the foundation's services to be analyzed, shown in Table 3.

**Table 3 Target Value Analysis**

No.	Service Attributes	Target Value Analysis		
		Foundation "X"	Target	Information
1.	Transparency	3.81	3.81	Target
2.	Accountable	3.51	3.51	Target
3.	Service Distribution	3.55	3.56	Improved
4.	Target Accuracy	3.62	3.62	Target
5.	Donor Services Program	3.52	3.61	Improved
6.	Dhuafa Service Program	3.65	3.65	Target
7.	Easy Access to Donation Services	3.65	3.71	Improved
8.	Professionalism	3.66	3.66	Target
9.	Informative & Communicative Officer	3.77	3.77	Target

### 4. Improvement Ratio (IR)

The value of the ratio of improvement to service attribute of Foundation service "X" is shown in Table 4.

**Table 4 Improvement Ratio of Foundation "X"**

No.	Service Attributes	Foundation X Performance	Target Value	Repairment Ratio	Performance
1.	Transparency	3.81	3.81	1.00000	Maintained
2.	Accountable	3.51	3.51	1.00000	Maintained
3.	Service Distribution	3.55	3.56	1.00847	Improved
4.	Target Accuracy	3.62	3.62	1.00000	Maintained
5.	Donor Services Program	3.52	3.61	1.03133	Improved
6.	Dhuafa Service Program	3.65	3.65	1.00000	Maintained
7.	Easy Access to Donation Services	3.65	3.71	1.01648	Improved
8.	Professionalism	3.66	3.66	1.00000	Maintained
9.	Informative & Communicative Officer	3.77	3.77	1.00000	Maintained

### 5. Determination of Weight Value /Raw Weight (RW)

The order of service attribute weight values is shown in table 5.

**Table 5 Order of Service Attribute Weight Value**

No.	Service Attributes	RW	Development Sequence
1.	Transparency	4.63000	2
2.	Accountable	4.51000	7
3.	Service Distribution	4.51895	6
4.	Target Accuracy	4.49100	8
5.	Donor Services Program	4.65219	1
6.	Dhuafa Service Program	4.54030	5
7.	Easy Access to Donation Services	4.57436	3
8.	Professionalism	4.56021	4
9.	Informative & Communicative Officer	4.47012	9

### 6. Normalized Raw Weight (NRW)

The order of normalized values of service attribute weights is shown in table 6.

**Table 6 Order of Service Attribute Weight Normalization Value**

No.	Service Attributes	NRW
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1.	Transparency	0.11299
2.	Accountable	0.10997
3.	Service Distribution	0.11041
4.	Target Accuracy	0.10973
5.	Donor Services Program	0.11367
6.	Dhuafa Service Program	0.11094
7.	Easy Access to Donation Services	0.11178
8.	Professionalism	0.11144
9.	Informative & Communicative Officer	0.10924

From the table above, it can be seen that the attribute "Donor Service Program" has the highest value of 0.11367, which means that the attribute contributes 0.11367 in meeting the wishes of consumers / donors.

### 7. *Technical Respon and Relationship Matrix*

At the technical response level, the top level management team will discuss with related parties and literature studies for each need, as well as the targets to be achieved to improve the performance of service attributes [5]. The relationship matrix is a matrix that shows the closeness of the relationship between customer needs/whats attributes with substitute quality characteristics (How). The magnitude of this relationship level is shown in a full-round visual symbol that shows a powerful relationship, a half-full-round that shows a moderate relationship, a triangle that shows a weak relationship, and an empty that shows no relationship between attributes and SQC [6].

### 8. *Technical Corelation*

Determining technical correlation contains reciprocal relations between technical responses. The stronger the technical response affects the other technical responses, the stronger the relationship [7]. From the results of interviews with the foundation's management, relationships between the technical responses can be formulated [8]. The correlation in the technical response can be seen in the House of Quality.

### 9. *Determining Technical Matrix*

The technical matrix maps amount contribution each technical response contributes to the quality of the services provided. The priority value of this technical response shows the magnitude of the contribution of the technical response to fulfill consumer desires [9]. The magnitude of the priority value will affect the contribution of the technical response in meeting customer needs [10]. The priority value of the technical response that needs to be developed is shown in Table 7.

**Table 7 Order of Technical Response Priority Values that Need to be Developed**

No.	Technical Response	Priority	Normalized Contributions
1.	Zakat Mobile Outlet Services	1.00594	7.04858
2.	Quick Fetch Service	2.33659	12.34906
3.	Service Outlets in Malls and Markets	1.33363	7.04858
4.	Regular Receipts/Expenses Report to Donors	3.00853	15.90093
5.	Regular evaluation of Results/Benefits to donors (via monthly magazine)	2.01889	10.67039
6.	Long-term Economic Empowerment Program & various facilities for the poor	2.00125	10.57716
7.	Area mapping and surveying	2.30878	12.20255
8.	Facilities for donors (health services, hearses, ambulances, etc.)	1.02295	5.40655
9.	HR Training	0.54782	2.89535
10.	Administrative Order	3.00853	15.90093

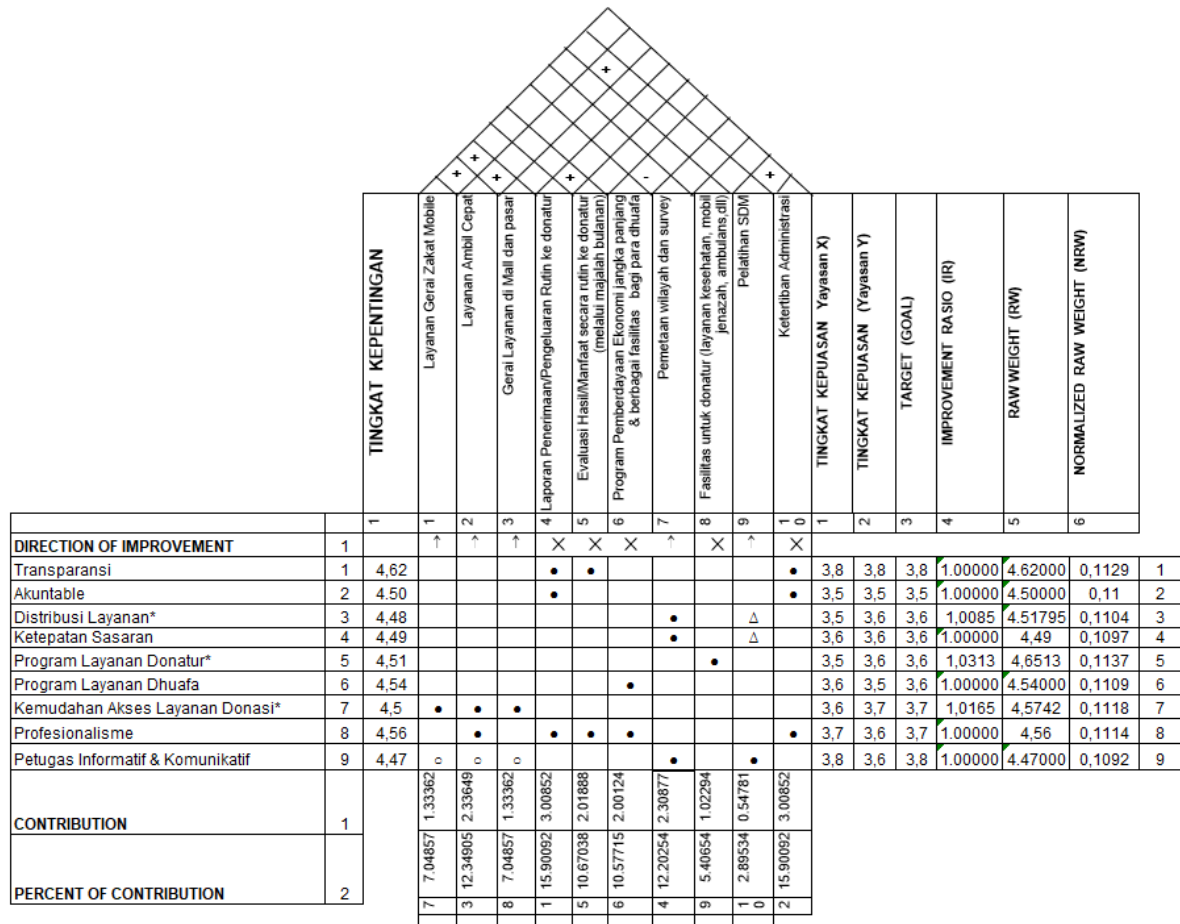


Figure 2. House of Quality Yayasan X

#### IV. CONCLUSION

The data collection, process, and analysis of the House of Quality resulted in conclusions as follows:

1. *Transparency* is the attribute with the top level of importance, with a value of interest of 4.63.
2. The *Donor Service Program* is the attribute with the top priority to develop or improve performance, with a weight value of 4.65.
3. The *Report of Revenue/Routine Expenditures to Donors* is the technical response with the top priority to be developed or increased, with a priority value of 3.00853 and a normalized contribution of 15.9%.
4. In improving the quality of foundation services, the management should focus more on attributes with the largest priority ranking to be improved and developed following the ratio of improvement and weight value.
5. By observing the priority ranking of the technical responses obtained, the management can further direct their attention to the technical responses that will be improved and developed in stages following the priority of the technical responses and capabilities of Foundation X.
6. To improve the quality of the foundation's services, the foundation's management can take several concrete and strategic steps, namely: evaluating the quality of services, developing human resources, improving processes and procedures, using technology (data management systems, customer tracking applications, and communication platforms), customer-based approaches, continuous supervision and evaluation, commitment to innovation (launching new programs, collaborating with external parties), transparency and accountability (orderly and timely reports, accompanied by documentation).

The suggestion for the next research is to evaluate the quality of service on the beneficiary side with the aim of improving the quality of service continuously so that the foundation management can develop further policies to improve the quality of services to donors and beneficiaries.

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