HOUSE OF QUALITY



Team 1

Ahmet Baran
Ajay Manoharan
Ankit Bhayani
Bharat Bhardwaj
Tim Bender
Ernesto Arroyo
Prashant Arora

QUALITY FUNCTION DEPLOYMENT QFD

- It is a method for developing a design quality aimed at satisfying the consumer and then translating the consumer's demand into design targets and major quality assurance points to be used throughout the production phase.
- It is a way to assure the design quality while the product is still in the design stage.

HOUSE OF QUALITY

- It is a diagram, resembling a house, used for defining the relationship between customer desires and the firm/product capabilities.
- It is a part of the Quality Function Deployment (QFD).
- It utilizes a planning matrix to relate what the customer wants to how a firm is going to meet those wants.

Steps in QFD

- Prioritize spoken and unspoken customer wants and needs.
- Translate these needs into technical characteristics and specifications.
- Build and deliver a quality product or service by focusing everybody toward customer satisfaction.

Applications of QFD House of quality

- Plan new products
- Design product requirements
- Determine process characteristics
- Control the manufacturing process
- Document already existing product specifications

House of Quality – Coal Mine Accident

- The quality issue at the coal mine arises mainly due to lack of safety & bad operational conditions.
- Thus, the worker is chosen as an input to bring about change.
- The voice of the customer is replaced by the Worker Demands.
- Voice of engineer is represented by the various processes shown.

| Workers Needs Wt. | Customer Support & Order Management | Worker Productivity | Safety Standards | Company Reputation | Human Resource Management | Providing an Effective Environment | Providing and Growing People | Maintenance | Measure Ta | arget Actual |
|----------------------------|-------------------------------------|---------------------|------------------|--------------------|---------------------------|------------------------------------|------------------------------|-------------|---------------|--------------|
| Communication 3 | Δ | O | O | 0 | Θ | Δ | Δ | Ι | Credibility # | 10% 12% |
| Benefits 1 | Δ | Θ | Δ | Δ | 0 | Δ | Θ | Δ | ROI # | 5% 6% |
| Safety Equipments 5 | Θ | Θ | Θ | Ι | O | Δ | 0 | Θ | Adherance 1 | 00% 81% |
| Good Working Environment 5 | 0 | 0 | Θ | 0 | 0 | Δ | Θ | Θ | PMA 1 | 00% 72% |
| Internal Inspections 3 | 0 | Δ | Δ | Δ | Δ | Ι | Φ | Θ | SLAs met 1 | 00% 96% |
| Training Programs 2 | Δ | Θ | 0 | Ι | Θ | T | Δ | Δ | Retention 1 | 00% 84% |
| Better Regulations 3 | Δ | Δ | Θ | Θ | 0 | 0 | Δ | 0 | # Projects | 4 3 |
| Ranking | 78 | 102 | 136 | 40 | 75 | 100 | 77 | 129 | | |

Inference

Based on the CFD House of quality, the following are the major areas of concern:

- Safety Standards
- Working environment
- Worker productivity

REFERENCES

- http://www.ciri.org.nz/downloads/Quality%20Function%20D eployment.pdf
- http://www.public.iastate.edu/~vardeman/IE361/f01mini/johnson.pdf
- http://en.wikipedia.org/wiki/Quality function deployment
- http://en.wikipedia.org/wiki/House of Quality
- http://www.qimacros.com/free-lean-six-sigma-tips/qfdhouse-of-quality.html

THANK YOU

Questions