HOUSE OF QUALITY

MEANING & DEFINITION

The **House of Quality** (HoQ) is a matrix diagram used in Quality Function Deployment (QFD). With the help of the House of Quality, customer requirements can be analyzed in order to develop products and services that meet these requirements. In addition, the necessary processes and technologies required for development and production are planned.

The House of Quality (HoQ) is a visual tool to help teams identify and prioritise customer needs and expectations while addressing technical requirements to meet those needs. It's a communication bridge between marketing, design, engineering and manufacturing.

Importance of House of Quality

- **Customer Focused Design**: The HoQ tells you to listen to and prioritize customer feedback. It keeps the voice of the customer at the heart of product design and development.

- **Cross Functional Collaboration**: The House of Quality encourages collaboration between different departments within an organization. Marketing, design, engineering and manufacturing teams work together to make sure the product meets customer needs.

- **Better Decision Making**: The matrix format of the House of Quality helps teams prioritize customer requirements and engineering characteristics. It gives you a clear visual of what needs to be done and enables better decision making.

- **Reduced Risk of Failure**: By addressing customer needs early in the design process and aligning them to technical specifications the risk of developing a product that doesn't meet market expectations is greatly reduced.

- **Optimization of Resources**: The House of Quality helps you identify the most critical engineering characteristics that will have the biggest impact on customer satisfaction. This allows you to allocate resources more effectively and focus on what matters most.

- **Higher Customer Satisfaction**: By using the House of Quality, you can ensure customer needs are integrated into the product design process and get higher customer satisfaction.

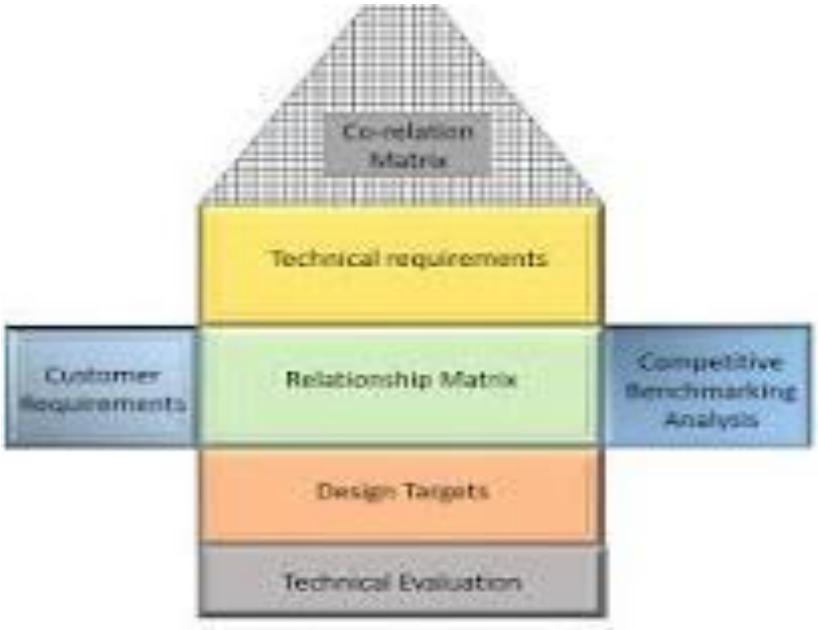
- **Increase Customer Satisfaction**: Employing models like the House of Quality and the Kano Model facilitates collaboration among various departments and leads to better planning and development. By incorporating the voice of the customer into project planning, these strategies ensure that products meet user needs, ultimately increasing customer satisfaction

STRUCTURE OF HOUSE OF QUALITY

The house of quality has six sections they are

- Section I: Customer requirements
- Section II: Prioritized customer requirements
- Section III: Technical Requirements(HOWs)

- Section IV: Relationship Matrix(WHAT Vs HOW)
- Section V: Trade off matrix
- Section VI: Prioritized technical Descriptors



Identify customer requirements

This is the inception, where teams focus on collating customer needs, wants, and expectations. Here, interactions with customers, market research, and feedback analysis are paramount in pinpointing what the customer truly desires from the product or service.

2. Translate requirements into technical descriptors

This is where you make the leap from customer desires to cold, hard technicalities. Translate the gathered customer requirements into detailed technical descriptors. It’s

about creating a coherent language that bridges customer expectations with the technical landscape, ensuring you address every nuance.

3. Competitor analysis

Once you've defined your technical descriptors, it's time to assess the competitive landscape. Examining competitors' offerings helps you spot gaps and opportunities for delivering a superior product or service. You'll also want to come up with a competitive positioning strategy during this phase.

4. Develop product concepts

When you understand customer needs and the competition, it's much easier for teams to develop coherent product concepts. This stage involves brainstorming and evaluating potential solutions, ensuring each concept is rooted in your customer needs.

5. Determine product characteristics

During this stage, teams define the product's characteristics, features, and functionalities, ensuring every element reflects both customer needs and the wider business goals.

6. Create detailed design

This is where the rubber meets the road. Teams develop detailed designs, encompassing every aspect of the product, from features to functionalities. It's about ensuring every element aligns with the defined product characteristics and meets customer expectations.

7. Develop production process

Finally, the focus shifts to the operational aspect. Here, teams fine-tune production processes, ensuring efficiency, precision, and adherence to quality standards.