



# AAI Invitational Symposium Non-Price Effects of Mergers

## What is Quality?

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# Bases of Competition

- Price
  - But, most firms don't want to compete solely on price
- Non-price bases of competition
  - Quality
  - Branding and differentiation
    - Which include quality
  - But, what is quality?





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# Definitions, Definitions, Definitions

TABLE 1  
Definitions Used in the Integrative Quality Framework

## Quality

1. *Quality* is a set of three distinct states of an offering's attributes' relative performance generated while producing, experiencing, and evaluating the offering.
2. *Offerings* are products, services, or a combination of both.
3. *Attributes* are components, properties, or features that comprise an offering.
4. *Attribute characteristics*
  - *Performance* is the extent or level of an attribute's functionality.
  - *Reliability* is the probability of an attribute performing at its intended level of functionality.

## The Quality Production Process

1. The *quality production process* occurs when firms use attribute design and process design specifications to convert their resource inputs and those from customers into produced attributes.
2. Within this process, the state of *produced attribute quality* is an offering's produced attribute performance relative to the firm's attribute design specification.
  - *Attribute design* specifies the resource inputs (from firms, customers, or both), attribute performance, and attribute reliability that an offering must deliver.
  - *Process design* implements the attribute design by specifying how resource inputs are converted into produced attributes.
3. *Quality control methods* consist of a set of procedures for monitoring produced attribute quality and maintaining or improving the process design specifications.
  - *Offline methods* use experiments and simulations to improve produced attribute quality through changes in process design.
  - *Online methods* monitor produced attribute quality and make necessary adjustments to the production process while it is in progress.
  - *Inspection methods* measure resource inputs or produced attributes and reject those that do not meet specifications.
4. *Resource inputs* are the material and human resources used to generate produced attributes. Material resources include raw materials and intermediate offerings provided by the firm's suppliers. Human resources include physical labor, knowledge and insights provided by the firm's employees, suppliers, and, in cases of co-production, its customers.

## The Quality Experience Process

1. The *quality experience process* occurs when firms (alone or with customers) deliver attributes for customers to experience and customers perceive these attributes through the lens of their measurement knowledge and motivation, emotions, and expectations.
2. Within this process, the state of *experienced attribute quality* is an offering's delivered attribute performance relative to a customer's 'ideal' expectation.
3. *Attribute types*
  - *Universal attributes* are those for which customer preferences are homogeneous and measurement is unambiguous.
  - *Preference attributes* are those for which customer preferences are heterogeneous and measurement is unambiguous.
  - *Idiosyncratic attributes* are those for which customer preferences are heterogeneous and measurement is ambiguous.
4. *Measurement knowledge* is the customer's ability to assess attribute performance with minimal bias and variance relative to more objective measures.
5. *Measurement motivation* is the customer's desire to assess attribute performance with minimal bias and variance relative to more objective measures.
6. *Emotion* is the set of feelings evoked in customers during the quality experience process.

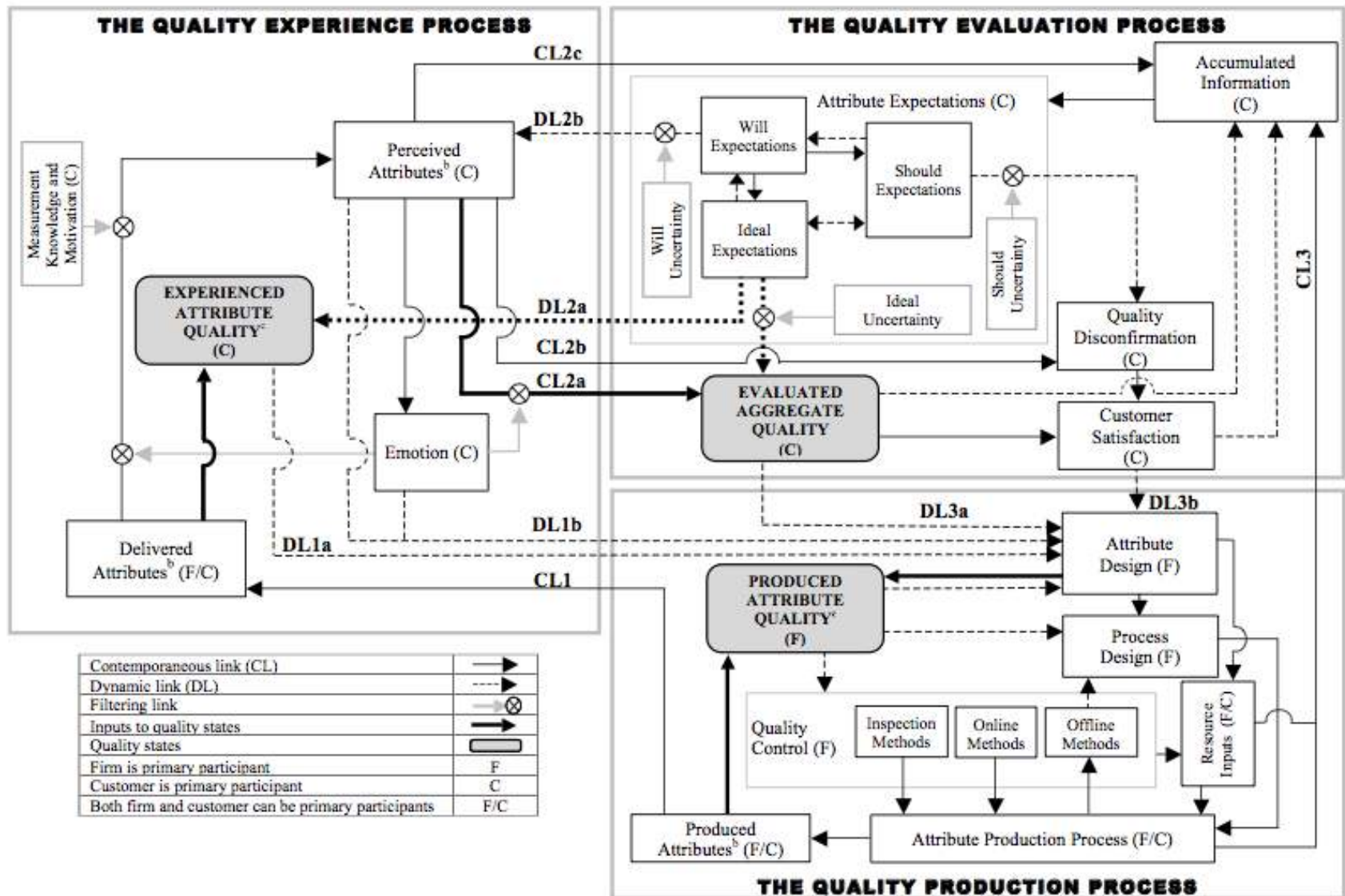
## The Quality Evaluation Process

1. The *quality evaluation process* occurs when customers compare an offering's perceived attributes with their expectations to form summary judgments of quality and then satisfaction.
2. Within this process, the state of *evaluated aggregate quality* is the aggregation across attributes of an offering's perceived attribute performance relative to a customer's 'ideal' expectation.
3. *Expectations* are attribute performance reference levels a customer uses when perceiving and evaluating individual attributes.
  - *Will' expectations* are the attribute performance levels a customer predicts or believes an offering is going to deliver.
  - *Ideal' expectations* are the attribute performance levels that reflect a customer's ideal preferences across all offerings in a category.
  - *Should' expectations* are the attribute performance levels a customer believes competing offerings in a category ought to deliver.
4. *Expectation uncertainty* is the variance in a customer's expectation of an attribute's performance. Each type of expectations has a corresponding uncertainty: 'will' uncertainty, 'ideal' uncertainty, and 'should' uncertainty.
5. *Accumulated information* consists of stored customer knowledge accrued from a customer's own experiences, other customers' experiences, firm strategies (e.g., customer relationship and brand strategies), media reports, and quality signals associated with each attribute.
6. *Quality disconfirmation* is the aggregation across attributes of an offering's perceived attribute performance relative to a customer's 'should' expectation.
7. *Customer satisfaction* is a postconsumption judgment that compares an offering's evaluated aggregate quality with its quality disconfirmation.



# The Comprehensive Quality Framework

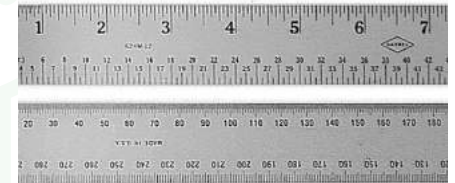
FIGURE 2  
Details of Integrative Quality Framework<sup>a</sup>





# Point 1: Quality is difficult to define and measure

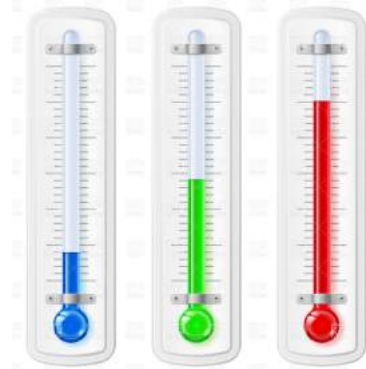
- A dictionary definition of quality is how good or bad something is (Merriam-Webster)
  - But, who determines what performance level is good or bad?
- Our customer-based definition of quality is perceived performance relative to each customer's ideal preference
  - Perceived performance is often different from delivered performance
  - The same product often has different quality for different customers because of different preferences







# Point 2: The type of attribute matters (a lot!)



ment Ambiguity

## Customer Preference

		Heterogeneous	Homogeneous
Unambiguous	Attribute Type: Preference Attributes	<p><u>Airline example:</u> Arrival and departure times, meal cuisine type, cabin temperature, location of exits and lavatories, seating configuration, seat material (cloth or leather).</p>	<p><u>Airline example:</u> Flight delay incidence, legroom, seat width, cabin noise, flight attendant response time, airline safety record, baggage handling time, baggage mishandling rate.</p>
	Attribute Type: Idiosyncratic Attributes	<p><u>Airline Example:</u> Aesthetics of an airline lounge, physical appearance of agents and flight attendants, interactions with fellow passengers.</p>	<p>Higher-level construals (e.g., helpfulness) of multiple attributes. See the Quality Experience Process section for a discussion of this point.</p>





## Point 3: Which metric is better— quality or customer satisfaction?



- Customer satisfaction is a comprehensive post-consumption judgment reflecting perceived performance, a customer's ideal preferences, and his/her expectations about what performance "should" be delivered
- Both quality and customer satisfaction can be influenced by many factors besides delivered attribute performance

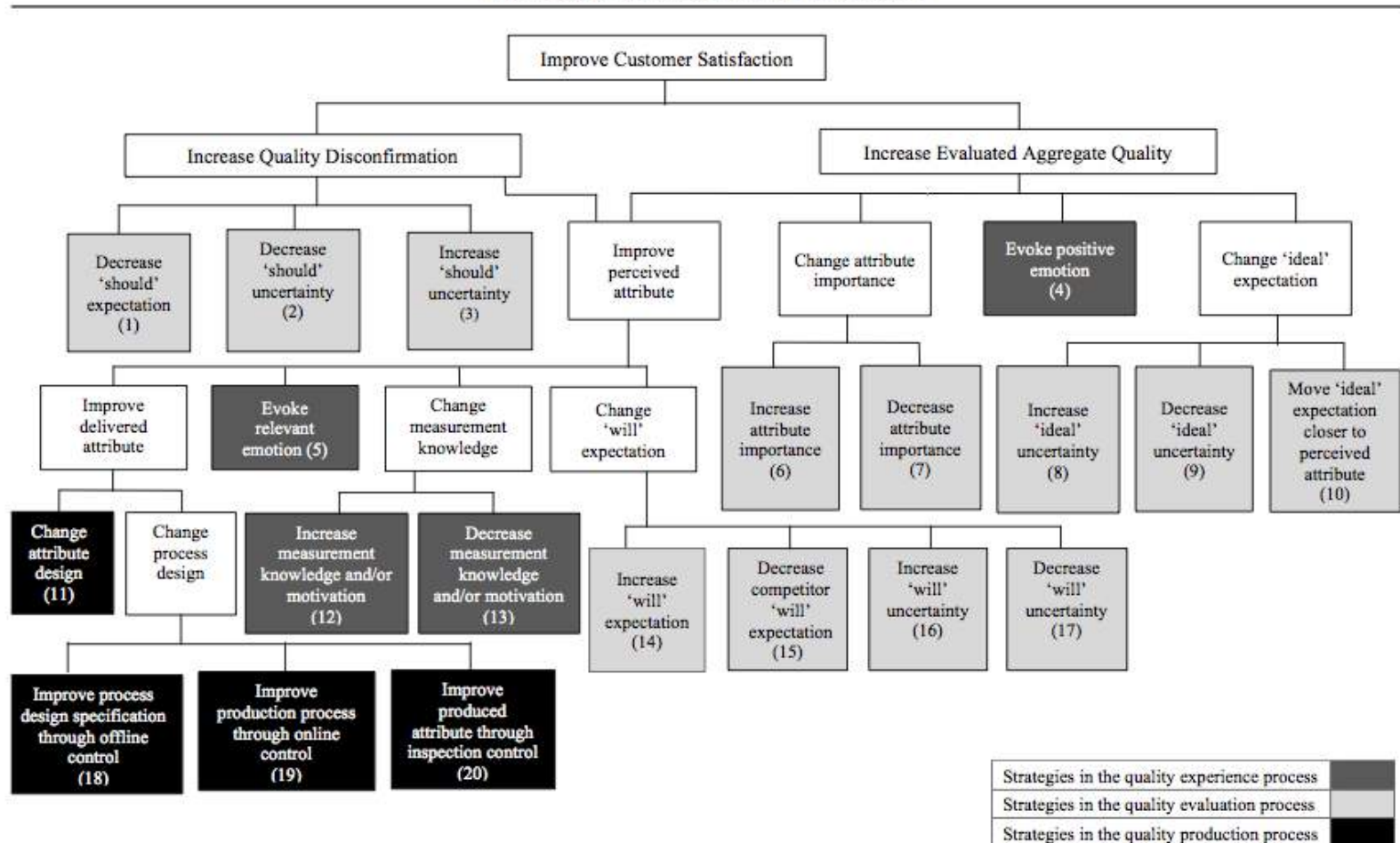




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# Strategies to Improve Quality and Customer Satisfaction (most have nothing to do with the product or service itself)

FIGURE 3  
Strategies to Improve Customer Satisfaction<sup>a</sup>







# Conclusion

- Our paper provides a comprehensive, integrative perspective on quality
- Quality is difficult to define and measure
  - Should it be defined by “experts” or customers?
- The type of attribute matters (a lot!)
  - Many attributes important to customers...
    - Are not valued equally by all customers
    - Cannot be measured with mechanical instruments, but require consumer surveys to measure
- Which metric is better—quality or customer satisfaction?