

In practice, it is not easy to distinguish a process problem with a mixture problem, when the food product design is only concerned with recipe or formulation development.

In order to address these problems certain measures are used as described below.

A factorial experiment: It studies the effect of some independent variables on food quality indices (response) through varying two or more of these independent variables, such as temperature, time, pressure and pH value. A series of values or test levels of each factor is selected and certain combinations of their levels are tested.

A mixture experiment: An experiment in which the food quality indices (response) are assumed to depend only on the relative proportions of the ingredient components present in the mixture and not on the amount of the mixture. In such an experiment, if the total amount of the mixture is held constant, the value of the response changes when changes are made in the relative proportions of the ingredients.

The Step-wise Detailed Explanation of Food Product Development Strategy

Traditionally, there have been six key stages in the process of new product development:

1. Genesis
2. Preliminary evaluation
3. Early development
4. Advanced development
5. Introduction
6. In-market evaluation

Today, some companies are emphasizing shorter developmental timelines and “getting to market” more quickly. In these cases, the development process may be considerably changed, consisting of only four stages:

1. Genesis and evaluation
2. Early development
3. Introduction
4. In-market evaluation and advanced development.

Consumer research can be useful in name evaluation, although it is a complicated and involved process. Generally, research can reveal whether a name fulfills the criteria that were defined as essential for its success prior to its development, not whether the name is empirically “good” or “bad.”

A particularly frustrating aspect of name development is the extent to which names have been previously trademarked.

Pricing

Pricing decisions frequently are dictated by product costs and objectives and competitive pricing levels.

From a consumer perspective, price sensitivity is highly variable.

As a rule, the more innovative the product, the less capable consumers are of evaluating its price and value.

Consumers weigh the value of each product and make appropriate trade-offs. They may pay more for a product that they perceive to be of high quality or prestigious.

As a rule, qualitative research is not a reliable method for examining pricing issues. However, a qualitative framework for pricing can be determined by examining consumers’ motivations to buy, attitudes, geographical considerations, and category perceptions.

Critical to all pricing decisions is in-market experience, where price levels can be evaluated and adjusted to reflect such factors as the competitive environment, coupon and display alternatives, and promotional executions.

Product Optimization

At this point, the theoretical product becomes a prototype. R and D may independently or in conjunction with consumer research conduct a product-focused investigation to assess and determine the optimal levels of consumer acceptance in terms of necessary cost constraints and profitability expectations. Research methods at this stage include:

Focus group interviews: Focus group interviews may determine if the product satisfies the attributes requirements

3. **Purchasing power and reason:** These are factors which are related to specific situations which demand spending or buying. Promotion at workplace, mood swings, social reasons, festivals, etc. all greatly influence consumer buying behaviour.
4. **Need based or want based:** An important factor in consumer behaviour is the attitude of the individual, whether the individual is buying due to a need or simply as a wish or want or extravagance. Needs are the basic, motivating forces that shape decision-making while wants are the learned needs that extend beyond the basic needs.

COMPONENTS OF MARKET AND CONSUMER RESEARCH

The first step in the research process is the collection or gathering of data, which is later on converted into information. This is achieved by adopting two possible sources of data collection, viz. primary and secondary.

Primary Sources

These constitute the original or first-hand data. These are the first-hand accounts and are collected keeping in view the intended product itself. It is expensive, and time consuming, but is more focused than secondary research. There are many ways to collect primary data as mentioned below:

1. Interviews
2. Focus groups
3. Projective techniques
4. Product tests
5. Diaries

1. **Interviews:** This is one of the most widely used techniques in primary research and is either interactive or non-interactive. Interactive interviews are telephonic, face-to-face and to some extent via internet while noninteractive is through mail survey. It usually involves the participation of two people an interviewer and an interviewee. The data is collected on the basis of answers to questionnaires.

- a. **Telephone interview:** It is practiced more in developed countries, as most people own a telephone. It is ideal

○ **Marketing and sales related:**

- **Demand estimation:** To determine the approximate level of demand for the product.
- **Sales forecasting:** To determine the expected level of sales given the level of demand. With respect to other factors like advertising expenditure, sales promotion, etc.
- **Online panel:** A group of individual who accepted to respond to marketing research online.
- **Store audit:** To measure the sales of a product or product line at a statistically selected store sample in order to determine market share, or to determine whether a retail store provides adequate service.
- **Test marketing:** A small-scale product launch used to determine the likely acceptance of the product when it is introduced into a wider market.

All of these forms of marketing research can be classified as either problem-identification research or as problem-solving research.

THE MARKETING MIX

A famous quote by Sun Tzu goes “*Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat.*”

Therefore there has to be a strategy along with tactics to make a venture successful.

The name given to the strategy adopted based on a few variables to make the product a hit in the market is referred to as the “marketing mix”. It is kind of a mixture of parameters that govern whether or not the target audience will accept the product.

In services marketing, a modified and expanded marketing mix is used, typically comprising **seven Ps** made up of the original 4 Ps plus *process, people, physical environment*. Occasionally service marketers will refer to **eight Ps**; comprising the 7 Ps plus **performance**.

In food product development there are also used 5 Ps. They are the variables that marketing managers can control