

AGRICULTURE BUSINESS PLANNING

Chapter 9

Selling and Defining the Market Problem

Lecturer: Liska Simamora, S.P., M.Sc

Lecture Overview

- Market situation

Introduction to this chapter:

“Selling and Defining the Market Problem”. This is the continuation of Chapter 8. The selling section is about to identify the progress of last week selling and capture some of customer feedbacks particularly for product comments or insights. Hence, this chapter will talk more about the situations faced by the customer, further leads to creating products adjusted to the market situation.

Twenty minutes of the lecture will be allocated to each twelve groups to present your selling situations and your customer feedback related to the utility of your offered product. The rest minutes will discuss about the new product development plans.

Understanding Consumers and Their Needs

The key question here is, will the new product excite consumers into spending money? To answer this question, we have to understand the customers. We have to know at least the following:

- What are their critical needs and how well are these being met present?
- Who are the consumers, what products do they use, how do they use products, and under what conditions are the products used?
- How are current market products received and perceived with respect to meeting their needs?
- How do consumers know that a product is working, what signals convey that a product is working?
- Are products being used for physical reasons (e.g. hammering a nail), emotional reasons, (e.g. feel good products) or both?

Market research techniques help in understanding consumer needs. These techniques can be broadly classified in to two categories: qualitative technique and quantitative techniques.

Under qualitative techniques, the following techniques generally are grouped: focus group interviews, one-on-one or in-depth interviews, and in-home visits. The focus groups approach is used most frequently. Typically, a group comprising 6-10 individuals of similar background and demographics, led by a moderator, discusses a topic. The one-on-one, or in-depth, interview focuses on one individual at a time in order to learn his or her habits, motivations, needs, and so forth. In-home visit allows for a closer interaction with consumers in their own environment. However, to be effective, households have to be representative of the general population or the population that is to be the focus of the new product development.

Qualitative techniques, while providing information that can be quite enlightening and creative in nature, are limited by small group size of numbers. In such cases, it is better to use quantitative techniques. Among the widely used quantitative techniques are brand image research, segmentation research, and conjoint analysis. (1) The brand image research, using an “important” to “not at all important” scale, attempts to determine which attributes are most important to customers, their opinion of all key brands regarding these attributes, and which attributes tend to best predict the overall brand opinion. (2) In segmentation research, consumers are grouped into segments and their response patterns examined. (3) Conjoint analysis is based on the concept that a brand, product, or concept can be considered as a bundle of attributes that make some contribution to overall customer acceptability. In contrast to qualitative techniques, quantitative techniques provide objective and reliable information leading to understanding the consumer.

To test the concept idea among the consumers, it is important to know how many consumers are likely to buy the product in order to try it. This number of consumers who will try the product is determined as follows:

Consumer trial = Interested universe x consumer awareness x retail distribution

The interested universe is determined by using the purchase interest scale (a weighted 5-point scale from “definitely would buy” to “definitely would not buy”). This universe is adjusted downward by multiplying by factors for the expected consumer awareness and retail distribution the company expects to achieve.

It also important to know how many consumers who try a new product will buy it. Consumer behavior research indicates that consumer buying behavior is both regular and

predictable. Their loyalty, however, is greater in the case of big brand name customers than small brand name customers, as shown by laundry detergent purchase data gathered by information Resources, Inc., shown in Table 1.

The market research techniques described here should lead to a clear and concise statement of customer needs from a customer perspective. Table 2 shows an example of customer needs statement for electric toothbrush. Another example of customer needs statement is shown in Table 3.

Table 1
Laundry Detergent Purchase Trends in the United States (Information Resources, Inc., 1985)

Brand	Market Share (%)	Repeat Purchase (%)
Tide	25	71
Wisk	10	62
Bold	8	58
Era	6	55
Cheer	5	55
A&H	5	57
All	5	53
Ajax	2	50
Dash	1	54

Table 2
Customer Needs Statement for Rechargeable Electric Toothbrush

Small, compact, good fit in hand, nonslip grip
Attractive modern styling
Easy to charge; charge should last at least seven days
Solid base; to double as charger
Both 110 and 220volt operation
Brushing head-to-head to have rotational and reciprocating movement
Interchangeable and variable-size cleaning heads
Price to be less than \$100
Attractive colors and packaging
Brand name

Table 3
Customer Needs Statement for Blender

Ability to puree
Ability to mix ingredients evenly
Ability to crush ice
Sturdy base to prevent tipping
Variable-speed motor (three to five speeds) and quiet operation
Attractive styling and availability in assorted colors
Easy to use
Easy to disassemble and clean
Dishwasher-safe components
Detachable, nonrusting blades
Weight less than 2.5 pounds
Motor not to overheat quickly
Pulse grind operation
Easy operating controls
Wide-mouth jar for easy loading
Pour spout on jar for easy pouring
Easy to read English and metric graduations on jar
40-60ounce capacity
Spill-proof lid
Clear jar for easy visibility
Cord storage area
110/220volt operation
Price under \$35

Understanding the Market

To properly evaluate the potential for new products success, it is necessary to understand the market. This market understanding should clarify how the product will benefit both the consumer and the company and should focus on the following factors:

1. Market fit with the overall mission of the company
2. Synergy between the market and the company
3. Attractiveness of the market.

While the first factor is obvious, synergy between the market and the company is determined by answering a series of question, such as

- Is the market new to the company?
- Will the company have to learn a new business?
- How well do its management, talent, and skills apply to this market?
- Can the company use its technological skills in the market? Its production facilities?
- Will the company have to learn new technologies?
- Have the technologies been acquired by acquisition? How well does the acquired management fit with the market?
- Are significant capital investment required to enter the market?
- Can the existing marketing and sales forces and strategies be used? Or, must new ones be developed?

A poor fit between the core competencies of the company (knowledge, experience, and capability bases) and unfamiliarity with the market is a recipe for disaster. It is important for survival that relationship between the old and new business be properly understood.

Attractiveness of the market also is determined by answering a series of questions:

- Is the market a large one? How large? Geographical and population sizes?
- What are the past market trends? Growing? Stagnant? Shrinking?
- What competitors already are in the market? What are their strengths and weaknesses?
- Does one competitor dominate the market? Which one?
- What are the cost and sales profiles of the leading competitor? Marketing and sales strategies? Technologies? Patents? Reaction to new competition?
- How do the consumers perceive the competition? How well are their needs being met?
- What market share is held by competition?
- What are the trends in consumer needs? What are the features of the new product?
- How are the pricing and features likely to attract the consumers?
- Is the timing of new product introduction good?

Response to these questions can be weighted to determine the market attractiveness and the market share one expects to gain, initially and over a period of time.

Product Attributes and Specifications

Once the assessment of customer needs and market condition is complete, it is time to develop product specifications. The elements that should be included in product specifications include the following:

- Performance: primary operating characteristics of the product
- Features: characteristics of the product
- Reliability: mean time between failures
- Durability: product life estimate
- Serviceability: ease of repair, part replacement, maintenance.
- Aesthetics: look, feel, sound
- Packaging: packaging requirements, labeling, handling
- Perceived quality: subjective reputation of the product
- Cost: manufacturing, servicing.

The details pertaining to all elements are tabulated, resulting in product specification. Table 4 shows product specification for electric toothbrush.

Table 4

Product Specification for Rechargeable Electric Toothbrush

<p>Performance:</p> <p>Effective cleaning effects; two-minute cleaning cycle time</p> <p>Long-lasting battery life (rechargeable); at least 30 minutes</p>
<p>Features:</p> <p>Capability to reach different areas with ease</p> <p>Small, lightweight; no more than 1.3 ounce</p> <p>Ergonomic grip, comfortable; 1-5inch circumference</p> <p>Exceeds the American Dental Association requirements for storage and replacement</p> <p>Timer</p> <p>Waterproof assembly</p>
<p>Reliability:</p> <p>Effective cleaning each use</p> <p>Cleaning head to last 12 weeks</p>
<p>Durability: all components to last two years under normal usage</p>
<p>Serviceability:</p> <p>Easy to replace head design</p> <p>Easy to replace floss design</p>
<p>Aesthetics: New ergonomic styling concept</p>
<p>Packaging:</p> <p>Small and compact box-packaging</p>

Lightweight package design and packing material; no more than 1 lb
Attractive labeling and graphics
RFID (Radio-Frequency Identifier) for added security and easy inventory tracking

Cost:

Manufactured cost less than \$80
Service and warranty cost less than \$15

Schedules, Resources, Financial, and Documentation

Developing an agreeable schedule is the next step in the product development planning effort. While the schedule and achievable milestones should be realistic, attention should be paid to competition and profitability realities. Tools such as the program evaluation and review technique (PERT), critical path method (CPM), and Gantt charts should be used to determine a realistic working schedule. The schedule also should be kept in mind in allocating and phasing resources (types, quantity, timing, etc.).

The next logical step is the development of financial data, also known as product per forma in some circles. The kinds of financial details needed are

- Development cost: investment, hours, people, and so forth
- Cost of developing prototypes
- Capital costs, tooling costs, setup costs, training costs, and the like
- Direct labor, materials, and overhead costs
- Packaging, distribution, marketing, and sales costs,
- Product manufacturing cost estimate, selling price determination
- Production volume, revenue, profit, and so on
- Return on investment, profitability, time frame for recovering investment, and the like

Putting all the information in a concise form, preferably on a single sheet paper, is a product plan. Table 5 and 6 show examples of product plans.

Table 5
Product Plan for Rechargeable Electric Toothbrush

Customer needs:	
Small, compact, attractive styling	
Easy-to-use	
Easy to clean	
Price less than \$100	
Key product Attributes:	
Rotating and reciprocating head design	
Overall weight less than 1.3 ounce	
Overall length no more than 8 inches	
Polymer-based ergonomic contoured handle	
Soft bristles, pressure, sensor limiting force 1,5 Newtons	
Dual head: front, brushing; rear: tongue cleaning	
Rechargeable battery with one hour life cycle	
LCD screen for charge display, brushing cycle time, sanitization status	
Quite (less than 60 dBA)	
Product Financials:	
Development costs, \$1,781,000	
Tooling and capital, \$3,500,000	
Manufacturing cost, \$70.70	
Distribution and administration costs, 15%	
Margin for profit, 20%	
Market and Competition:	
Gain > 25% of market share	
Penetrate all leading retail chains	
Development Schedule	
Phase	Completion
1. Customer needs	February
2. Product concept	May
3. Product design	August
4. Prototype development	September
5. Manufacturing	October
6. Product release	December
Resource Requirements:	
Weeks	Phase
6	Marketing and product management
24	Design engineering
12	Computer-aided design
16	Manufacturing engineering
10	Quality and test engineering

Key interfaces:

Marketing

Research and development

Reference

¹ Mital, Anil., Desai, Anoop., Subramanian, Anand., Mital, Aashi. 2008. Product Development. A Structured Approach to Consumer Product Development, Design, and Manufacture. Butterworth-Heinemann. Elsevier Inc.