

PRODUCT OFFERING AND QUALITY WORKBOOK

ANALYSIS SECTION

VERSION 1.2

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PREFACE

This workbook is a part of a larger new venture planning tools development program. Its primary objective is to assist in the development of new business without large development staffs.

The tools consist of a series of workbooks designed to provide a check list of key issues that need to be addressed during the development of most business concepts. We believe that the process of venture development is an active one. While much of the workbooks focus on data collection, analysis and planning, we believe, that most activities should be dedicated to "hands on work" with the product, the process, and the potential customers. We hope that these tools will act to focus activities on "what must be done". The philosophy expressed in this workbook reflects that of the authors and not of the organizations or corporations involved.

We intend that this workbook and all others in the series will be "evergreen". New versions of the workbooks are expected to be published periodically, reflecting constructive comments by users. This workbook reflects the efforts of many individuals who have provided ideas and comments.

INTRODUCTION

This is a *Product Offering & Quality Workbook*. It is designed as one of the tools for defining Venture Ideas as legitimate Business Venture Candidates. Proper definition and analysis of an idea in business terms is essential. This workbook is compatible with the *Business Plans Guide*.

We have come to recognize that many good Ideas, which might have become successful ventures, have gone undefined and undeveloped. There has been a perception that only big ticket "Ideas to Ventures", controlled by large organizations, would be of interest. In addition, "user-friendly" systems have not been available to individuals with candidate ideas.

We have chosen to consider Product Offering and Quality as tightly interrelated components of any Business or Venture. This is primarily because of strong belief that Quality must be an inherent part of the Product Offering from the beginning.

This *Product Offering & Quality Workbook* represents half of the Analysis Section, or Step Two of a detailed four-step process for taking an Idea to a Venture. The major steps are Definition, Analysis, Planning, and Venturing. The other half of the Analysis Section is the *Venture Analysis Workbook*. It is generally best to complete this workbook before the *Venture Analysis Workbook*.

Quality is defined as meeting the customers' expectations. This workbook focuses on the benefits that the offering gives to customers, the identity of his expectations, and the basic Quality program organization to assure meeting them. Issues regarding the establishment of operations and operational details of the Quality program are covered in the Planning Section, using the companion *Operations and Quality Workbook*.

It is not expected that you will have immediate answers to all the questions in this workbook. Developing adequate information is part of the analysis process.

Good luck. It is not supposed to be easy.

DEVELOPMENT

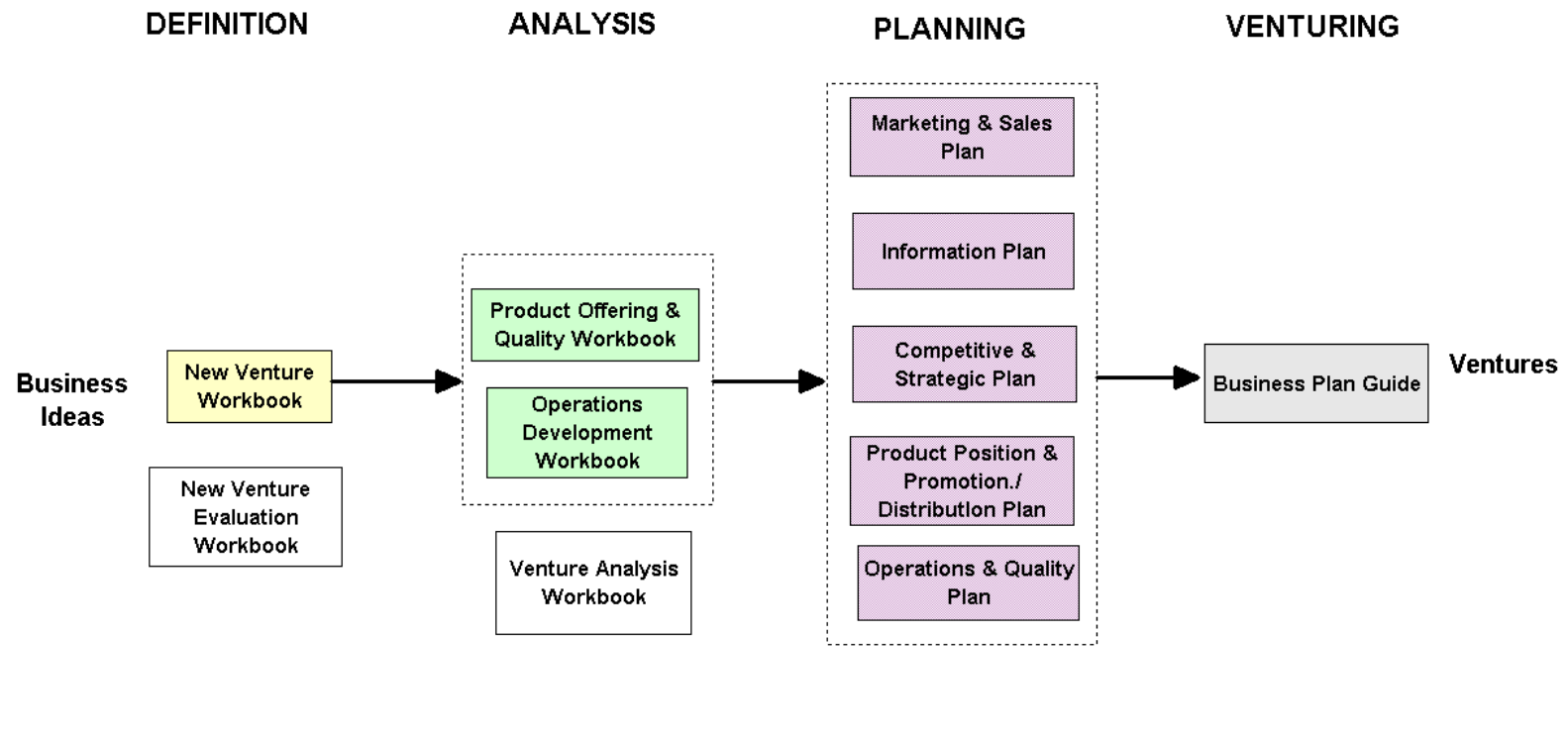


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I. BUSINESS DEFINITION

We assume before you start this section, that you have completed the *New Venture Workbook* and have reviewed your entries. In that workbook the Business concept should have been defined. However, much information is likely to have accumulated since that definition was formulated. Business concepts evolve. Do not feel constrained by the previous definitions.

This section asks you to define your Venture Candidate as a refined Business Definition. There are five sub-sections, covering Products, Markets, Manufacturing, Business Needs, and Marketing & Distribution.

If you can clearly outline each of these sub-sections, you will have formed a Venture Candidate Concept into a Business Definition.

If you can not clearly outline some or all of the sub-sections, you have an Undefined Business Idea. You either need additional information or another idea.

Well-outlined and reasoned Business Concepts translate into useful Business Definitions.

I. BUSINESS DEFINITION

A. Products

What products and services do you intend to sell?

This description can be as specific or as general as the present stage of development will permit. Try to be as specific as possible. The product definition limits the range of the business that will be considered. However, the more specific the product is, the easier it is to define the means of production. Recognize that the character of the products may change as the business is redefined during the development process.

At a minimum, specify the use of the product and service to the customer and user.

I. BUSINESS DEFINITION

B. Markets

To whom will you sell the products and services and who will use them?

The identities of buyers, specifiers and users of the products and services are critical for defining the business. It should be noted that the buyers, specifiers and users may be different individuals with widely different needs; however, all are considered to be customers.

Products are often purchased more than once. For example, products may be sold through a distributor or subsequently processed into end-use products which still carries the original product name. If the product is purchase multiple times, all customers should be identified. However, if the product loses its identity, i.e. sulfuric acid in a metal pickling process, subsequent elements of the use channel need not be identified.

If feasible, key perceived customer benefits should be identified along with the customers.

I. BUSINESS DEFINITION

C. Business Needs

What business need does the offering satisfy for the customers?

What does the offering do for the customer? For products to be purchased repeatedly, they must give value to the purchaser. Include here both direct functions of the products and the services provided with them. Focus on the customer benefits rather than the uses.

I. BUSINESS DEFINITION**D. Manufacturing****How will you make the products and services that you intend to sell?**

The proposed means of producing the products and services should be described in as much detail as possible. At least the general process of manufacture should be described. Alternative means of production should also be noted.

If new facilities are needed, a general description should be included. If toll production or a manufacturing partnership is contemplated, the arrangement should be described.

I. BUSINESS DEFINITION

E. Marketing and Distribution

How will you deliver the products and services to you customers?

The means of distribution and marketing must be described. Identify the proposed distribution channel including possible distributors or marketing partners.

Describe the way by which the product will be marketed to the customer needs to be described. For example, if the product is to be sold to an automotive company, direct selling is usually the method of choice.

II. MARKET STRUCTURE

This section asks you to define the market structure for your candidate venture. At the top of the Market Structure definitional effort is the question:

"Can a clear and useful picture of the existing or expected market structure be developed?"

There are five major elements in the Market Structures:

- o Applications
- o Primary Customers
- o Perceived Values
- o Product Attributes
- o Pricing

Knowledge of the Market Structure is important because this is the field upon which your candidate venture will have to play

II. MARKET STRUCTURE

A. Applications

What are the end-use applications and markets for the product?

The market for the products consists of users and applications. The end-use of a product is made up of those points where value is still gained from the product attributes. In most cases, end-use is achieved beyond the initial direct customers.

End-uses (and end users) extend to the point where the product loses its identity.

A. Applications

How do the products get to the end-user?

Most products and services are bought sold, or transferred several times before they get to the ultimate user. The structure of these transfers is the Distribution Channel.

A product flow diagram is used to track this flow. Indicate product flow diagrams for all major channels for these products. Indicate the sources of information, preferably from direct contact with the end-users through marketing research. Add additional steps if necessary.

Initial
Customer

Intermediate
or End-User

Final Customer

Application 1

Application 2

Application 3

A. Applications

What value is obtained for the intermediate customers of the product?

The intermediate customers consist of the distributors, intermediate processors, and retailers of the product. If a purchase or ownership transfer takes place, the intermediate owner must derive some value from the product. That value is often a profit derived from resale.

The nature and extent of the value of these customers should be identified on the product flow diagram. Indicate the sources of information, preferably from direct contact with the customer through marketing research.

A. Applications

What are the competitive products and firms?

There is generally some form of competition. In-kind competition consist of "drop-in" substitutes for your product. These include both generically equivalent products and those that can be used in the same way. No two products are exact substitutes. Some modifications of the user's process is generally necessary. If that modification does not require major investment, competition is considered "in-kind".

For example, a mechanical energy transfer mechanism might employ screw, chain, cable, pneumatic, hydraulic or spring components. All are competitors, but may be "in-kind" competitors only under certain conditions. List the competitive products and firms for your initial customer and users. Also list prospective competitive products.

A. Applications

What are the competitive technologies for this product?

These are products and technologies that could compete for the same applications as your product. This can extend to totally different approaches to satisfying the customers needs. This is usually referred to as Functional Competition. Functional Competition is more broad than "in-kind". List both the present functional competitors and those likely to arise in the near future.

II. MARKET STRUCTURE

Who are the primary customers of the product?

Within a channel there is generally one customer that chooses the product. This is the primary customer. He tends to have principal control of the market. It should be noted that this control may not be with the end-user. In some cases, distributors and retailers have extremely strong influence on the market.

B. Primary Customer

1. Buyer Structure

How is the product purchased by the primary customers?

Who are the principal decision makers for the product in the primary customer's organization? How is the decision made?

The identification of specifiers and decision makers is critical to gaining beneficial decisions. In many cases decision making is shared. The structure of the decision process can greatly influence the importance of offering attributes and the preferred method of approaching the customer.

B. Primary Customer

2. Primary Customer Benefits

What are the benefits required by the customers?

Purchases are made to gain benefits. List the key benefits for the main decision makers of the primary customer(s). This information should be obtained with direct customer involvement, preferably using marketing research.

B. Primary Customer**3. Customer Use Costs**

What costs are associated with using the product?

There are costs as well as benefits that are associated with using the product. List the all costs. Include both direct and indirect costs, as they would be viewed by the customer.

B. Primary Customer

What is the value-in-use of the product for the primary customers?

The value-in-use is the economic value of the product as it is used. For consumed materials, this corresponds to a comparison between using the product and its best alternative. The value-in-use should be compiled in terms of those customer benefits which reflect identified sources of value.

Value-in-use is measured only from the customers' perspective and only in economic terms.

II. MARKET STRUCTURE

C. Perceived Value

What do the primary customers consider the value of the product to be?

Perceived Value captures the monetary value that customers consider the product to be worth. There are attributes which can not be captured by value-in-use. These include: product image and nature, the quality and responsiveness of assistance, and previous experience with the seller. The Perceived Value may be greater or less than the value-in-use. Perceived Value estimates may not be "rational" as the seller sees it. Emotional factors often color customers' perceptions.

II. MARKET STRUCTURE

C. Perceived Value

What are the relevant product attributes that contribute to delivering customer benefits?

The attributes are physical characteristics of the product that give value, i.e. dimensions, color, weight, viscosity. In listing the attributes, focus on the customer benefits. Attributes that are irrelevant to benefits should not be listed. You may wish to review value-in-use and perceived value estimates as you compile this list. It may help to consider the attributes as "distinguishing characteristics" of the product. Generally, there are only a few product attributes which distinguish the product in an application.

D. Product Attributes

1. Product Performance

How well does our product perform on those attributes?

D. Product Attributes**2. Competitive Performance**

How well do our main competitors in each primary market compare?

Identify their strengths, weaknesses and characteristics. Indicate in what markets they have advantage and which they have weaknesses.

II. MARKET STRUCTURE

E. Pricing

1. Reference Price

What is the "expected" or reference price for similar materials?

Usually a product or offering can be associated with a class of products. For example a new high performance fiber will be associated with the existing high performance fibers. A ceramic part will be associated with other similar parts. For such groups of products, there is usually an expected range of prices. Exceeding that range significantly could generate buyer resistance, even though the product has greater value-in-use and perceived value.

E. Pricing

2. Competitive Price

What is the price of the best alternative product or technology?

Give the comparative price in similar units as viewed by the customer. Indicate which competitors have strengths and weakness in expected prices and in their ability to offer and hold lower prices.

E. Pricing

3. Market Isolation

Can different markets sustain separate pricing policies?

Markets and applications should be sufficiently different to allow independent pricing policies to be used in each market.

Markets can be regarded as separate for marketing communications, but still not be isolated enough to allow independent pricing. Products must be differentiated sufficiently to allow use in higher value markets.

Outline your estimate of these markets which could sustain separate pricing policies.

E. Pricing

4. Target Price

What price is being considered for the product?

List the prices and the arguments for it compared with its: value-in-use, perceived value, reference price, and competitive price. Discuss the potential impact of in-kind competition and buyer resistance.

Target
Price

Value-
In-Use

Perceived
Value

Reference
Price

Competitive
Price

App. 1

App. 2

III. CUSTOMER EXPECTATIONS

This section asks you to define the customer expectations of your candidate product offering.

Successful ventures rarely spring from forecasts of future markets. The most effective way to develop a strong business is through quick responses to customer needs as conveyed in their expectations.

Definition of customer expectations becomes critical in developing a new venture.

A. Sources of Customer Dissatisfaction

1. Customer Specifications

What are the customer's product specifications and how well do the products meet them?

Customers set specifications on broad ranges on products. Ideally, these specifications are set cooperatively by the customer with his quality seller. Usually the first perception of quality is the degree to which the customer is satisfied with the meeting of those specifications. List known product specifications and allowable variance(s) from those specifications.

	<u>Product/ Customer</u>	<u>Pertinent Specification</u>	<u>Variance</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

2. Apparent Consistency

How does the customer perceive the consistency of the product and how important is that consistency?

Apparent consistency goes beyond meeting specifications. Variations in product attributes can be noticeable yet still within specifications. This is particularly the case when appearance is not within specifications. Random visual variation of color, for example, is often the basis for apparent inconsistency.

	<u>Product/ Customer</u>	<u>Critical Item</u>	<u>Importance</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

3. Product Presentation

What attributes contribute to a quality image of the physical product?

The way a product is delivered to the user can alter his perception of it. A high quality product should be expected to be delivered in "quality" packaging. What aspects of the packaging and delivery constitute quality by the customer?

	<u>Product/ Customer</u>	<u>Critical Item</u>	<u>Importance</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

4. Customer Process Runability

What attributes of our product affect the runability of the customer's process?

The ability of the product to consistently run on the customer's process is a key measure of quality from the user's perspective. Runability centers on the customer's ability to process or use the product, given an apparently consistent operation. Runability reflects the consistency of the product. It also reflects the sensitivity of using the product. If the application is extremely sensitive to small changes in process conditions, it will appear to have runability problems.

Indicate customer's expected need for technical assistance in getting started and in problem solving on his line.

Product/
Customer

Sensitive
Process Area

Applicable Product
Attribute

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

A. Sources of Customer Dissatisfaction

5. Customer Process Flexibility

What attributes affect the ability of the customers process to run over a wide range of conditions?

The broader the range of conditions over which the product will perform satisfactory, the greater the flexibility the customer has with his process. If the product limits the use the customer's process, the product may not meet his expectations. Identify the limiting factors for runability. Indicate steps we can take to minimize the impact of the limiting factors.

	<u>Product/ Customer</u>	<u>Potential Process Limitation</u>	<u>Attribute</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

6. End-User Quality Constraints

What offering attributes (product key characteristics) affect the quality of the customer's products?

The offering may affect the quality of the customer's products directly through improved performance, or indirectly by improved quality through the customers process. In either event, the quality of the customer's products has been improved. List all attributes that gives rise to quality improvements of the customers products from either source.

	<u>Product/ Customer</u>	<u>Attribute</u>	<u>Performance Improvement</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

7. Life Cycle Costs

What offering attributes affect the long term costs to the customer?

Life cycle basis reflects the total cost to the customer of using the offering in his process. For equipment, the life cycle includes all aspects from installation to replacement. For materials and components, it includes equipment needs, maintenance requirements on equipment, as well as operating costs.

Indicate product failure costs, product maintenance and/or repair costs, and service or technical assistance, if relevant.

	<u>Product/ Customer</u>	<u>Applicable Attribute</u>	<u>Effect on Customer Long Term Costs</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction

8. Safety

What safety assurances, both to his employees and to his customers, does he expect of you?

Safety is a key selling point. It is reasonable for the customer to expect care in assuring that products are safe to use and safe to his customer. The conditions for safety depend on the nature of the product. List all appropriate conditions and requirements to assure safety.

	<u>Product/ Customer</u>	<u>Requirements to Assure</u>	<u>Comments</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction**9. Service****What service do your customers expect of you
and by whom?**

The product offering includes not only the product itself but whatever service is required. Some service can be considered an extra offering with an associated price. Some service is expected with the offering. List the services that are considered inherent to the offering, and those that are expected at additional cost.

	<u>Product/ Customer</u>	<u>Service Inherent to the Offering</u>	<u>Services at At Additional Costs</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction**10. Responsiveness**

How responsive does the customer expect the firm to be regarding sales and technical assistance?

Responsiveness is measured in terms of time. How quickly is a response expected? That timing will depend on the nature of the request. List the type of request and the expected responds.

	<u>Request</u>	<u>Response (hours)</u>
1.		
2.		
3.		
4.		
5.		
6.		
7.		

A. Sources of Customer Dissatisfaction**11. Assurance**

What assurances does the customer need to develop his business?

Every business requires some assurance from their suppliers. This assurance covers continuity of business and business practices. It may extend into credit and liability in some cases.

	<u>Product/ Customer</u>	<u>Areas of Required Assurance</u>	<u>Criticality</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

A. Sources of Customer Dissatisfaction**12. Unique Sources**

What are the unique issues that could make the customer dissatisfied with our offering?

What are unique issues that make customers of competitive products dissatisfied?

How can we act on this issues?

	<u>Product/ Customer</u>	<u>Unique Issues of Dissatisfaction</u>	<u>Potential Action</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			

III. CUSTOMER EXPECTATIONS

B. Interrelationship Among Expectations

How likely are the various expectations to interact?

Identify the key expectations that will most likely determine the customer's impression of the quality of the offering. Some of these expectations are independent; that is, meeting one expectation will not effect any other. Some will be interdependent. You will be unable to meet those expectations without meeting others to some extent.

On the attached table indicate the key expectations and the interrelationship with each other, with 0 being independent and 6 being extremely dependent.

		Customer Expectations																	
Customer Expectations		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			

III. CUSTOMER EXPECTATIONS

What types of complaints are anticipated?

Include all aspects of the offering. Price should be included as well as delivery terms. Concentrate on apparent product defects.

How does the organization respond to the complaints?

Indicate the how the business is organized to respond.

C. Defects

1. Catastrophic Levels

At what level of defect or not meeting key expectations would the customer consider changing suppliers?

Identify the defects and expectations which could cause the customer to change suppliers. Indicate the level of each defect that would produce that extreme response.

Defect/Expectations

Catastrophic Level

C. Defects

2. Expected Performance

C. Defects

3. Minimum Observable

What is the minimum observable level for each defect and key expectation?

For the defects and expectations listed for both expected performance and catastrophic behavior, list the Minimum Observable Level. Below this level the customer is unaware of any improvement or value. A "good" marketing effort may direct attention to reduce this level if it is in the interest of your offering.

Defect/Expectations

Minimum Observable Level

III. CUSTOMER EXPECTATIONS

D. Marketing Information

What activities will be established to continuously reassess customer potential uses, benefits and expectations?

Customer expectations and perceived benefits can be expected to change. It is critical that a program be established to monitor those changes and to determine real customer benefits. Indicate the program elements and resources allocated to that function.

IV. PRODUCT POSITION

This section asks you to define the Product Position of your candidate product offering. Product position is generally accomplished through segmenting the customers to take advantage of competitive strengths.

Product position is only meaningful in terms of the customers that are being targeted. It is important to first aggregate the customers into market segments.

It is natural to look at customers as groups. This has probably been already done during the Business Definition, where the market is defined as groups of customers with common characteristics.

There are several other ways of looking at the market. In this section, we endeavor to segment the market several ways to derive a robust vision of the product offering.

A. Segmentation

1. Attribute Segments

How do we wish to aggregate customers by product attributes?

Product attributes are modified to meet specific customer needs. This results in a number of product grades or variants. Segmenting markets by product attributes helps manage the proliferation of grades. The objective is to determine the need for additional variation or the potential for consolidation.

Identify both the customers in the segments and the key perceived attribute.

	<u>Segment Name</u>	<u>Customers</u>	<u>Key Offering Attributes</u>
1.			
2.			
3.			
4.			

A. Segmentation

2. Benefit Segments

How do we wish to aggregate customers by the importance of customer benefits?

Traditionally, market segmentation focuses on common and consistent customer behavior. The importance of specific customer benefits is viewed as a driving focus for behavior. Aggregating customers, based on their perceived importance of the benefits, is a traditional method of market segmentation.

Identify both the customers in the segments and the most important benefits.

	<u>Segment Name</u>	<u>Customers</u>	<u>Key Customer Benefits</u>
1.			
2.			
3.			
4.			

A. Segmentation

3. Quality Segments

How do we aggregate the customers to reflect common expectations?

All customers want Quality. Customers define Quality through their own expectations, which are different. Quality Segments focus on common and consistent expectations.

Identify both the customers in the segments and their most important expectations.

	<u>Segment Name</u>	<u>Customers</u>	<u>Key Customer Expectations</u>
1.			
2.			
3.			
4.			

IV. PRODUCT POSITION

B. Competitive Advantage

What offering attributes gives competitive advantage?

Competitive advantage is obtained by an offering being better than its competition. The advantage is generally restricted to particular applications. List the aspects of the offering which are believed to be unique and give competitive advantage. Compare the product with at least one in-kind and one functional competitor, if possible, for each major application.

<u>Application</u>	<u>Attributes</u>	<u>Comparison to In-Kind and Functional</u>
--------------------	-------------------	---

B. Competitive Advantage

1. Differentiating Issues

What attributes and issues can be used to differentiate the product from its major in-kind and technological competition?

Key to competing successfully is to differentiate your product from the competition. This differentiation can be a competitive advantage even if the attributes do not produce an application advantage. For example, the company trademarks or the Kodak yellow box both provide product differentiation and competitive advantage without effecting application performance.

List the aspects of the offering which contribute to differentiating the product from competitors.

Application

Differentiating Attribute or Issues

B. Competitive Advantage

2. Competitive Position

How well is the product expected to do compared with competition?

Give an overall assessment of the expected physical performance of the product compared with in-kind and functional competition for each key application.

Application

Product Performance Compared with Competition

C. Competitive Strategy

What aspects of the offering are to be emphasized to give competitive advantage?

Competitive advantage is obtained by the emphasis of specific aspects of the offering. This emphasis defines the type of product strategy that will be followed. These strategies include: (1) low pricing or a commodity strategy; (2) tailoring the product to the customer or a niche strategy; (3) high quality or performance strategy; (4) a second source strategy or (5) a partnership strategy.

Application

Strategy

V. QUALITY PROGRAM

This section asks you to define a Total Quality Program for the candidate product offering. We have chosen to consider three elements for this definition effort:

- o Total Quality
- o Product Quality
- o Quality Management

Issues regarding the implementation of the Quality Program and the specifics of quality assurance and control are covered in a separate *Operations and Quality Workbook*.

The important thing is that Quality must be built into the product offering from the beginning.

A. Total Quality

1. Quality Customer Partnership

What is the nature of quality customer partnerships that are considered for this venture?

Any partnership is based on assumed roles, responsibilities, and benefits. List those characteristics of customer partnerships for each major application.

Application

Characteristics

What are the advantages and costs for such partnerships?

Indicate the specific advantages, costs, and risks to the firm and to its potential customer partners to undertake this arrangement. These advantages may include the potential for sole sourcing.

To the Firm:

To Customer Partner:

A. Total Quality

1. Quality Customer Partnership

Who are the likely candidates for such partnerships?

Candidates for quality customer partnerships include direct and end-use customers. In some cases both are necessary to assure a satisfactory transfer of information.

Direct Customer Candidates:

End-User Candidates:

How will these partnerships be formed?

Indicate the mechanism for forming such a partnership.

Who must approve these arrangements?

Indicate the lines of approval needed within the firm to authorize such an arrangement.

A. Total Quality

What is the nature of quality supplier partnerships that are considered for this venture?

Any partnership is based on assumed roles, responsibilities, and benefits. List those characteristics of supplier partnerships for each major application. Indicate the mechanism for forming such a partnership. Indicate the lines of approval needed within the firm to authorize such an arrangement.

Application

Characteristics

What are the advantages and costs for such partnerships?

Indicate the specific advantages, costs, and risks to the firm and to its potential customer partners to undertake this arrangement. These advantages may include the potential for sole sourcing.

To the Firm:

To Customer Partner:

A. Total Quality

2. Quality Supplier Partnership

Who are the likely candidates for such partnerships?

Supplier Partner Candidates:

How will these partnerships be formed?
Indicate the mechanism for forming such a partnership.

Who must approve these arrangements?
Indicate the lines of approval needed within the firm to authorize such an arrangement.

B. Product Quality

1. Determinants of Product Quality

How do product attributes relate to customer expectations?

Relate the product attribute levels with meeting customers expectations. Indicate the key customer expectations and relevant product attribute goals. Note that there can be several attribute goals for a single attribute, including performance and consistency.

Customer Expectation

Attribute

Goal

1. Determinants of Product Quality

a. Correspondence with Customer Expectations

How do these measures of compliance correspond to each of the customers expectations?

Indicate the importance of achieving each attribute goal on meeting or exceeding each key customer expectation. 0 is unimportant and 6 is critical.

		Customer Expectations																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Attributive Goals		/ /																	
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
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16																			
17																			
18																			

1. Determinants of Product Quality

b. Standards of Measure

What are the measures of attribute compliance?
For each attribute goal, indicate the measurement and the technique used to determine compliance.

Attribute Goal

Measure

Technique

2. Costs of Poor Quality

a. Out-of-Specification

What is the cost of a product being out-of-specification?

Product that is out-of-specification may be reworked or sold as a low grade product or discarded. In any case, real and opportunity costs are incurred. These costs should be noted.

Include in the cost, any administration expense required to maintain the out-of-specification or derived "by-product" inventory and disposal fees.

	<u>Product</u>	<u>Cost/Unit</u>	<u>Maximum Volume</u>
1. Rework			
2. Sold as Lower Grade			
3. Discarded			
4. Other			

2. Costs of Poor Quality

b. Product Rejection

What is the cost of products that have been rejected by the customer?

If the product is rejected by the customer, what is the cost? Include here the direct quality costs of reinspection, storage, disposal, and the potential loss of business. In addition, indicate the direct costs of material, shipment and return, reshipment and any payments and services needed to satisfy the customer.

<u>Direct Quality Cost Items</u>	<u>Estimated Costs</u>
Reinspection	
Storage	
Disposal	
Loss of Business	
Material Shipment & Return	
Reshipment	
Payment & Services	

C. Quality Management

1. Quality Objectives

What are the immediate Quality objectives for the product and the organization?

Indicate the organizational objectives regarding Product and Total Quality. Everything can not be done immediately. Indicate the short range objectives and the time horizon for their accomplishment.

Short Range Objectives

Timing

What are the long term Quality goals for the venture?

Indicate the long range Quality goals that will be necessary to meet the business objectives for this venture.

Long Range Goals

Timing

C. Quality Management

2. Quality Organization

How is manufacturing and marketing function designed to provide Total Quality for the product and services?

In order to deliver quality in products and services, the manufacturing and marketing functions have to be coordinated. Ideally this should be administratively on a formal base and operationally along the informal structure. Quality responsibility should be clearly identified and individuals empowered.

Give the organizational diagram and indicate; (1) the positions of accountable quality responsibility and (2) the lines of informal communications.

2. Quality Organization

a. Responsibility for Total Quality Assurance

Who is responsible to assure that the total business system is targeted to deliver total quality?

While Total Quality is the responsibility of all members of the venture, the only way to assure Total Quality is to have an individual assigned to that function with the resources, time and authority to make quality happen. Identify the individual with accountable responsibility for Total Quality assurance. Indicate his authority regarding reorganization, customer relations, and resource control.

2. Quality Organization

b. Responsibility for Process Quality Assurance

Who is responsible for process and product quality control and assurance?

While Quality Control is the responsibility of all members of the venture, the only way to assure Quality Control is to have an individual assigned to that function with the resources, time and authority to make quality happen. Identify the individual with accountable responsibility for Process Quality assurance. Indicate his authority regarding product rejection and resource control, and indicate other duties.

C. Quality Management

3. Quality Improvement Program

What program and organizational provisions have been made to assure that quality will continuously be improved?

To obtain competitive advantage through quality, customer expectations should be encouraged to grow. This places increased demands on the delivery of quality. As such, the business organization should be designed to require continuous improvement. Indicate the programs and organizational structures that focus on improved quality. Include awareness programs as well as functional activities.

C. Quality Management

4. Personnel and Rewards

What personnel and reward system is in-place to encourage continuous improvement of quality?

People must be encouraged to improve quality. Programs need to be in-place that support quality-improving behavior. This requires substantial, clear rewards for positive behavior. Indicate the appropriate programs in-place and resources allocated toward them.

VI. PLANNING

A. Program Elements

What are the elements of the quality and product development program?

Indicate the planning items and milestones for quality and product program. Indicate the timing for all key milestones.

Milestones

Timing

VI. PLANNING**B. Responsibility****Who is responsible?**

For each program element, someone should be assigned responsibility. The person assigned must be held responsible for obtaining the desired information within the time frame and resource constraints. Where possible, link authority for the execution of the project element with the responsibility of reporting results.

Program ElementResponsibility

VI. PLANNING

C. Action Table

How will the program come together?


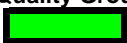



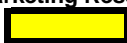
	<u>Topic</u>	<u>Action</u>	<u>Timing</u>	<u>Responsibility</u>
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

VI. PLANNING

D. Gantt Chart

How to track the progress of the program?

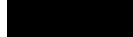
Action Items	20__								20__							
	Jan		Apr		Jul		Oct		Jan		Apr		Jul		Oct	
1.																
2.																
3.																
4.																
5.																
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18.																
19.																
20.																

Development Group  Quality Group 	R&D  Manufacturing 	Engineering  Marketing Research 
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Gantt Chart

Action Items	20		20		20		20		20	
	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul
1.										
2.										
3.										
4.										
5.										
6.										
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8.										
9.										
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15.										
16.										
17.										
18.										
19.										
20.										

Development Group



R&D



Engineering



Quality Group



Manufacturing



Marketing Research



SUMMARY

I. BUSINESS DEFINITION

- A. PRODUCTS
- B. MARKETS
- C. BUSINESS NEEDS
- D. MANUFACTURING
- E. MARKETING AND DISTRIBUTION

II. MARKET STRUCTURE

- A. APPLICATIONS
 - 1. *The Distribution Channel*
 - 2. *Intermediate Customer Benefits*
 - 3. *Competitive Products*
 - 4. *Competitive Technologies*
- B. PRIMARY CUSTOMER
 - 1. *Buyer Structure*
 - 2. *Primary Customer Benefits*
 - 3. *Customer Use Costs*
 - 4. *Value-In-Use*
- C. PERCEIVED VALUE
- D. PRODUCT ATTRIBUTES
 - 1. *Product Performance*
 - 2. *Competitive Performance*
- E. PRICING
 - 1. *Reference Price*
 - 2. *Competitive Price*
 - 3. *Market Isolation*
 - 4. *Target Price*

III. CUSTOMER EXPECTATIONS

- A. SOURCES OF CUSTOMER DISSATISFACTION
 - 1. *Customer Specifications*
 - 2. *Apparent Consistency*
 - 3. *Product Presentation*
 - 4. *Customer Process Runability*
 - 5. *Customer Process Flexibility*
 - 6. *End-User Quality Constraints*
 - 7. *Life Cycle Costs*
 - 8. *Safety*
 - 9. *Service*
 - 10. *Responsiveness*

11. Assurance
12. Unique Sources

SUMMARY, Continued

B. INTERRELATIONSHIP AMONG EXPECTATIONS

C. DEFECTS

1. *Catastrophic Levels*
2. *Expected Performance*
3. *Minimum Observable*

D. MARKETING INFORMATION

IV. PRODUCT POSITION

A. SEGMENTATION

1. *Attribute Segments*
2. *Benefit Segments*
3. *Quality Segments*

B. COMPETITIVE ADVANTAGE

1. *Differentiating Issues*
2. *Competitive Position*

C. COMPETITIVE STRATEGY

V. QUALITY PROGRAM

A. TOTAL QUALITY

1. *Quality Customer Partnership*
2. *Quality Supplier Partnership*

B. PRODUCT QUALITY

1. *Determinants of Product Quality*
 - a. Correspondence with Customer Expectations
 - b. Standards of Measure
2. *Costs of Poor Quality*
 - a. Out-of-Specification
 - b. Product Rejection

C. QUALITY MANAGEMENT

1. *Quality Objectives*
2. *Quality Organization*
 - a. Responsibility for Total Quality Assurance
 - b. Responsibility for Process Quality Assurance
3. *Quality Improvement Program*
4. *Personnel and Rewards*

VI. PLANNING

A. PROGRAM ELEMENTS

B. RESPONSIBILITY

C. ACTION TABLE

D. GANTT CHART

GLOSSARY

Many of the terms used in this workbook have broader definitions than are intended here. The following definitions refer to this Product Offering and Quality Workbook.

Assurance	Business assurance is any agreement, either legal or ethically binding, that one firm will support another regarding the results of a business decision. In this workbook, that assurance is equivalent to a warranty.
Attributes	Inherent characteristics of the product offering. In general, attributes can consist of both physical performance characteristics such as color and size and the non-performance characteristic such as product name.
Competitive Strategy	Competitive strategy is the set of policies and programs designed to give your business a desirable and comfortable position with your competitors and customers.
Compliance	Compliance is the agreement between standards and actual operations.
Customer Benefits	Customer benefits are the advantages to the customer for using the product. They are expressed in terms of what the customer gains from the product.
Customer Expectations	Customer expectations are the conditions of the product, service and conduct which the customer anticipates from their suppliers. These include not only specifications, but freedom from unknown problems.
Defects	Any deviation from designed product characteristics, even if it is within the limits of product specifications.
Distribution Channel	Distribution channels refer to all means of getting the product to the ultimate user. This may include several levels of customers.
End-User	Products may have a chain of owners and users from the manufacture through sales and distribution to a series of processors. The last user of the product where it still maintains its identity is referred to as the End-User. In this workbook the end-user refers to any user beyond the first direct sale of the product.
Functional Competition	Functional competition is any competing product, service, or technology which could serve the same function as your product to the customer.
In-kind Competition	In-Kind Competition is any competing product or service which could substitute for your product without the customer

	undertaking extensive changes in his operation.
Isolation	A market is considered isolated if an independent price structuring could be conducted without any effect on any other pricing policies.
Manufacture	Manufacture consists of any and all means of producing the physical product.
Partnership	A partnership, as used in this workbook, is any agreement with an outsider organization or other company organizations involving working together in the development of this business. This may be either formal or informal in nature.
Perceived Value	Perceived value is the value of the product and its attributes to the customer. It is his subjective evaluation of what the product is worth to him.
Primary Customer	The primary customer is the decision maker within the marketing channel. He is the individual or organization who chooses to buy the product.
Product	Product, as used in this workbook, is synonymous with the product offering. It includes all physical products, services, and attributes as delivered to the customers.
Product Differentiation	Product differentiation is a development process of making your product appear different and more desirable than the competition. This is usually associated with marketing strategy against in-kind competitors.
Product Life Cycle	The product life cycle refers to the total period for which the product or product type is usable by the customer. In the case of consumables, it refers to the time frame that the customer will be using your product; usually several years.
Product Quality	Product Quality is the degree to which the product meets or exceeds the customer's expectations.
Product Specifications	The agreed upon conditions with which the product will comply, including the range of acceptable variability.
Quality	Quality, in this workbook, refers to both product quality and total quality. In general, it relates to "meeting and exceeding customer's expectations."
Reference Price	The reference price is the expected price for a class of products for which your product roughly fits in the mind of the customer. It is customer segment specific.
Responsiveness	Responsiveness, in the workbook, refers to the action of responding to a customer's request or informing the customer about issues that are pertinent to his operation.

Runability	Runability, as used in this workbook, refers to the ability of the customer to run his process. In particular, it refers to the impact of the product on the customer's process.
Segmentation	Segmentation is the process of grouping customers based on some set consistent characteristics. Segmentation is done to allow the development of effective product and market development.
Service	Services are any and all value-added attributes of the offering not inherent to the physical product.
Suppliers	Suppliers are sources of things, information, expertise, or labor that add to the manufacture and delivery of the product offering.
Target Price	Target price is the proposed price for the product. It is understood that this is only an estimated price.
Total Quality	Total Quality is the degree to which the business meets or exceeds the customer's expectations presently and has the capability to do so in the future.
Value-In-Use	Value-in-use is the economic potential value of the product in the customer's business. It is a calculated value based on modeling the financial structure of the customer's process and business.