

BUSINESS DEVELOPMENT - QUESTIONS & COMMENTS

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PREFACE

A series of Business Development Workbooks and Guides were developed as a private effort to satisfy what we believe to be a basic need in American industry. The goal of that effort was to set in motion a process of canonizing the experience in new business development. It is our intention to put into the hands of potential intrapreneurs the tools necessary to guide the new business development from inception of an rough concept to the construction a full business plan sufficient to attract management support.

We have focused on the content of development rather than the process. It is in the issues of content that we can merge experience and knowledge into tools. Since experience and knowledge are ever growing, workbooks and guides are expected to continuously change. We have tried to make these tools as generic as possible. However, they include our bias and experiences and, therefore, reflect those industries and businesses of which we are knowledgeable of.

The resulting series of documents involved over 1300 pages. Several people have asked us to construct a more concise document that captures the questions raised but in a more compact form. This is our first response to that request. This document summarizes eight of the ten workbooks. Two of the workbooks focused on evaluation of projects and did not lend themselves to this type of condensation. We recommend that investigators interested in project evaluation and venture analysis review those workbooks.

This *Questions and Comments* document, as did the workbooks and guides upon which it is based, reflects the efforts of many individuals who have provided ideas and comments. We wish to thank them and the organizations that have help us in the development of these documents. The philosophy expressed in this workbook reflects that of the authors and not of the organizations or corporations involved.

INTRODUCTION

This document reviews tools for assisting in the development of business concepts. It is derived from a number of workbooks designed to assist intrapreneurs in their journey for initial concept to a viable business plan.

No business enterprise can long prosper without renewal. That renewal requires the identification and development of new businesses. The process of new business development as in other areas of business development involves change. Change whether it be process innovation, new business, or continuous Quality improvement requires: (1) information and skills, (2) means or processes for effectively making that change take place and (3) an organizational state-of-being that facilitates change.

The tools that we have developed focus on content - the key questions that need to be answered. We also infer a process that we feel is needed in order to be successful. That process targets the singular business developer, the intrapreneur. Experience has indicated that initial business development tends to rest on the activities on single individuals or very small teams. The goal in developing the tools is, therefore, to give these individuals the means of developing the business and consistent vehicles to report progress.

As the champion of Quality, Edwards Deming, has noted as the eighth of his fourteen points, fear must be driven from organizations to allow change. Business development rests on the work of "Tigers". "Tigers" do not thrive in an environment of fear or within a tight bureaucracy. Though we do not go into the establishment of a conducive organizational state-of-being, it is critical for new business development.

BUSINESS DEVELOPMENT PROCESS

For purposes of this review, businesses or ventures are defined as composing the means of selling a small group of products to a specific customers. A business enterprise usually consists of a number of these elemental businesses and ventures. Enterprises are organized around missions, directions, or functions that they perform. They are effectively organized if that selection generates commonalty, synergy, and unity of purpose that allow efficient economics and renewal.

The business development tools focus on elemental businesses. These businesses are viewed as the building blocks of the enterprises and the corporation as a whole. Business development, in this context, has only one purpose: The successful creation of *profitable business ventures*. It is not product development, market development, nor Research, but bridges all. Business development encompasses the definition, evaluation, and direction leading to profitable business ventures.

Overall Development Strategy

The strength of the enterprise consists of the interconnection of groups of businesses. The "Fit" of an elemental business to the enterprise is based on common manufacture, markets, underlying technology, and strategic thrust of the enterprise. Not all potentially profitable business concepts should belong to the business enterprise who initially identified it. Successful renewal is inherently linked to the search for businesses that strengthen its market and business position. This search is the key to start the process of business development.

Concepts for business ventures may arise from traditional Corporate sources, outside affiliations, or the activity of individual intrapreneurs. Candidate concepts should help form a portfolio of ideas from which selections are made. Few concepts should be selected since resources should always be scarce and the likelihood of success of any individual idea will be low. The portfolio approach emphasizes early elimination of probable losers.

The development of long range competitive advantage rests on the increasing strengths and competences. The selection of new business concepts should encourage a consistent development of business strengths and core competences.

The selection of projects must be a management prerogative and responsibility. Allocation or denial of resources is the ultimate control mechanism. Inadequate pruning leads to a diffusion of resources, resulting in inadequate funding of developing projects. Ineffective selection results in misdirected effort.

Business Development Process

In order to assist in the selection the development process is traditionally divided into stages or phases. Various schemes use as many as 10 stages. For simplicity and generality we use only five steps. These consist of: Pre-Screening, Definition, Analysis, Planning, and Venturing. There should be at least one check point at each step. Management approval and commitment should be required at each check point.

Prescreening

Business concepts can be derived from any number of sources. **Prescreening** consists of idea generation activities. These involve the creative process of identifying possible directions and ideas, technical and marketing research, and suggestions from existing business personnel. The result of this process are ideas that can be cast into business concepts.

The prescreening process is not merely a conduit of ideas. It is an active process of generating, reviewing, and screening ideas. From the screening and reviewing process new ideas are generated.

Definition

A business can not be efficiently evaluated or developed unless it is fully defined. The business development process starts at the end of the prescreening process. Our first focus is on the **Definition** of the business concept. The business is defined by the products that are sold, the customers who buy and use the products and the means by which the business will create and deliver those products. During definition phase only rough estimates of the economic viability should be determined.

Analysis

If the concept is considered worthy of further work, it enters the venture analysis phase. The analysis phase continues the development process by investigating the characteristics of the potential business and the conditions that are required to make it successful. It is here that we fold in the conditions for an economically viable and Quality business. The evaluation of concepts during the analysis phase is critical. The costs of development and organizational commitment beyond this phase can be expected to escalate appreciably.

Planning

During the **Planning** phase, the business concept is in fully supported development. Projects undertaken to the stage are assumed to be able to go the whole way to commercialization, even though we realize most even here are likely to be terminated. The outcome of the planning phase is a full business plan. Concurrent with the planning phase is the development of processes to create and deliver the product and market development to test the product and business concept.

Venturing

The final stage of this view of business development is **Venturing**. This involve full scale commercialization of the business concept. Commitment of the Corporation is critical before enter this phase.

SECTION SUMMARIES

The questions and comments are intended as aids to the intrapreneurs, venture leaders and teams to help define, evaluate and plan the conduct of the venture. As previously mentioned they are extracted from a set of workbooks on new business development. For convenience, the questions and comments have been organized into sections around phases of the project research and development. These sections parallel those of the workbooks. For more information on the issues, please refer to the workbooks and planning guides.

The questions and comments consist of annotated checklists of issues that should be considered in the process of developing any new venture. No list can cover all issues that may arise during the development of a venture. However, these represent the best effort at this time. We view these documents to be "ever-green"; frequent revisions are expected as events make new issues apparent.

Definition Phase

The definition phase of venture development is the most vital for success. It focuses on the definition of the venture and the development plan. The purpose of this phase is to generate a clear development proposal for management.

1. New Ventures

This section is designed to assist in the initial definition of the new venture concept and the scoping of a feasible development plan. It focuses on extending an initial product or market need concept into a full business concept which then can be proposed for development. It is the first and critical step in the venture development process and is intended for the person promoting the concept.

- Business Definition
 - Products
 - Markets
 - Means of Production
- Potential Business Value
- Critical Issues
- Development Elements
- Concept Test Design

Analysis Phase

The analysis phase consists of the process of venture redefinition and evaluation. As such, the nature of the venture is expected to change during this phase. The sections that have been prepared focus on the continuous redefinition of the business. Redefinition is expected several time during this process.

2. Product Offering & Quality

This section is designed to assist in clarifying the design of the product and identifying the elements of quality as viewed from the customer perspective. Quality is defined as "meeting or exceeding customers expectations." In this context Quality has to be built into the product and the venture in order that the business will be successful. Early assessment of the capability of the venture to meet the customer expectations is critical to determine feasibility. This section is a companion to the Operations and Quality section. That section focuses on the delivery of quality. That section appears later in the development process because the process is usually not developed sufficiently to allow detailed analysis. Both the sections should be filled out as soon as possible to ensure Quality from the beginning.

- Business Definition
- Identification of the Customer
- Product Characteristics
- Pricing
 - Customer Value
 - Pricing Policy
- Customer Expectations
- Measures of Quality
- Development Program

3. Operations Development

This section focuses on the design of the operations for the business. These includes the methods of making and delivering the product and services. The section includes estimates of sales, costs, and investments. Manpower requirements for the venture are also reviewed. This section is intended to assist in the definition of the processes rather than detailing the economic issues.

- Process Design
- Operations Design
- Sales Forecasts
- Cost Structures
- Investments
- Operations Development Plan

Planning Phase

The planning phase is an advanced development of the venture. Usually approval for the venture has been made. The phase is targeted for preparing the full business plan. The purpose of the sections is to assist understanding the full range of issues that need to be considered and to ensure that key issues are not skipped.

4. Strategic and Competitive Plans

Previous sections focused on the immediate business opportunity. This section takes a strategic course, concern with long term competitive position and growth. Competitive pricing policy, global opportunities, technology development, new product opportunities, and manufacturing strategies are reviewed.

- Long Range Forecasts
 - Sales
 - Price
 - Costs
 - Technology
 - Investment
- Competitive Position
- Threat Assessment
 - Critical Issues
 - Scenarios
 - Risks
- Approaches
 - Product Strategies
 - Pricing Policies
 - Potential Promotional Programs
 - Technology Strategy
 - Manufacturing Strategy
- Feasible Business Goal and Mission
- Resource Requirements
- Alternative Earnings Forecasts

Operations & Quality Plans

This section is intended to assist in the development of the operations and to assure Quality. It is the companion to the Product and Quality section. The section focuses on the design of the process and the organization to assure effective delivery of a quality product and services to the customer.

- Product Specifications
- Process Design
 - Monitoring
 - Continuous Improvement
 - Cost Control
- Quality Objectives
- Venture Organization
- Quality Program
- Production Schedule
- Production & Quality Plan

6. Marketing & Sales Plans

This section focuses on the customer and the actions that we wish him to take in order to be successful. It is mainly directed toward the sales and customer support function. It is intended for the

sales and marketing management function as well as the venture leader.

- Business Goals
- Customer Identification
- Customer Plan
 - Desired Customer Behavior
 - Action
 - Competitive Position
- Resource Requirements
 - Sales Aids
 - Product Information
 - Business Courtesies
 - Budget
- Overall Effect

7. Product Position, Promotion, & Distribution Plans

This section takes a broad perspective on the marketing functions. It includes concerns on pricing, promotional programs, product specifications, and distribution. It is intended to assist in producing a consistent, effective, and efficient marketing plan. The Marketing & Sales Plan section is a companion which provides customer input.

- Product Position
- Promotional Function & Strategy
- Advertising
- Show, Demonstrations, & Exhibits
- Distribution Channel Design
 - The Value Chain
 - Selection
 - Conditions and Agreements
 - Partnerships
 - Customer computing
 - Channel Management
- Information Strategy
 - Development Plan
 - Resource Requirements

8. Information Plans

Information is both necessary to plan a business and to run it. This section focuses on both the need for information and the development of systems to run the business and monitor results. Running the business includes effective accounting and budgeting systems. The monitoring systems must allow for effective control. Finally, technical and business research programs need to be established to monitor competition, customer behavior, and apparent market needs.

- Accounting Systems
 - Invoicing
 - Paying Bills
 - Cashing Checks
 - Control & Monitoring
 - Consolidation
 - Consistency
- Product & Application Information
- Customer Support
- Market Information
 - Marketing Research

- Customer & Sales Information
- Competitive Information
- Systems Support
 - Sales Force Support
 - Integrated Communications
 - Customer Computing
 - Integrated Business Information
 - Decision Support

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NEW VENTURES

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. The more specific the product is, the easier it is to define the means of production.

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

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

The identity 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.

If the product will be purchased more than once, either through a distributor or through subsequent processing where the identity of the product is maintained, all customers should be identified. 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 customer benefits should be identified along with the customers.

How will you make the products and services that you intend to sell?

The 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.

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.

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

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

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.

What is the measure of worth to the firm for this business concept?

Various measures of business stake can be used to estimate the worth of a successful venture. It is desirable to estimate the earnings and prepare a venture costs and revenue statement (Proforma). At the early phase of a venture, sufficient information for such a credible assessment is usually not available.

At a minimum, the feasible sales potential in units sold either in total or annually should be estimated. The Functional Potential is the total

What are the specific applications for the products and services?

market where the product has both fitness for use and a price range that could be acceptable. The Opportunity is defined as the probable market after adjustment for share and penetration.

The evaluation of market potential focuses on specific applications into which the product or service will be sold. These "applications" should represent separate opportunities or markets for the business. In some cases, the applications can be different major customers or separate industries.

Since the total opportunity will be assessed based on the sum of the opportunities of the applications, they should be selected to be as independent as possible.

For each application the customer should be identified, with a description of his use.

What customer benefits will be derived from the products and services?

The value of the product to the customer is determined by the benefits that are derived from the product's use. The benefits focus on the specific applications for the product in the users' environment and the nature of potential competition.

Special attention should be made for needed changes in practice in order to use the product. Organizations use products in specific ways. If those procedures must be changed in order to use the product, the benefits that can be derived will be limited.

What are the existing competitive products and services which our product offering (products and services) will replace?

There is almost always some type of competition, either potential or existing, for the product offering. Both in-kind and functional competition should be considered. In particular, functional competition should be examined closely.

What should be the price of the product offering (products and services)?

Price range often limits the acceptability of a product. Premium products are generally limited to a small segment of a larger application segment. Estimate the price in terms of existing and potential competition.

What must be the maximum cost for the product to make the venture profitable?

What should be the gross earnings (contribution) of the product offering (products and services)? The test of potential financial worth of the venture is "acceptable" earnings. The minimum measure of earnings is the Contribution Margin, which is the difference between the target sales price and the variable cost. Contribution Margin does not consider allocated fixed costs or overhead.

o Contribution Margins of greater than 50% are desirable.

o Contribution Margins of less than 30% are not desirable.

The highest target variable costs are calculated based on the targeted price and the minimum contribution margin.

Contribution Margin =

$(\text{Targeted Price} - \text{Variable Cost}) / \text{Targeted Price}$

$\text{Variable Cost} = (1 - \text{Contribution Margin}) \times (\text{Targeted Price})$

What fraction of all applications can use these products and services?

Fitness for use includes limitations due to price, benefits, and use condition. In particular, focus on needed changes in practice and limited benefits due to those changes. Required changes in practice, including changes in source of supply, can greatly change the usefulness of the product and the demand for its use. Will the products and services do what they are supposed to do?

What existing product, service, or use can be used as an estimate of the demand for the products and services?

For each application, a number of "models" or "analogs" need to be identified that will be used to estimate the market potential. These analogs should be based on similar uses or market segments. The closer the analogs are to the new product concept, the more reliable and credible the results will be.

What are the sources of market information that you can use to estimate the potential?

For each analog in each application, sources of market and/or population information must be identified. These include: government data, such as the population census and the census of manufacturers; secondary sources such as Predicasts, multi-client studies and Dialog sources; internal information; and specially commissioned studies.

What is the functional potential for each application?

The functional potential represents the total market where the product has both fitness for use and a price range that would be acceptable. This is evaluated for each independent application based on the market analog. The present time frame is usually used for the evaluation. It is understood that the market potential will be realized at an unspecified future time.

How is the opportunity to be determined?

Usually an estimate of the expected sales adjusted for market share and the rate of penetration is used as the first estimate of the market value. If the information available for the business concept is insufficient for a sales forecast, other estimates can be used.

At a minimum, the functional potential can be used; but, a better measure is usually desired.

$\text{Opportunity} = \text{Potential} \times \text{Share} \times \text{Penetration}$

What share of each application will our products obtain?

Usually no product is without competition. The competition may come from an incumbent or from new entries. For the calculation of opportunity, the share relates to the functional application previously determined. Fitness for use estimates have already been applied to the potential and,

therefore, should not be included here.

Estimates are usually made either from comparative data or from market position. Historically, shares have tended to be stable. The shares from markets with two competitors tend to be 75% and 25%. With three competitors the shares tend to be 65%, 25%, and 10%. One need only forecast the number of competitors and the position to estimate the market share.

When will the business be commercialized?

Timing of commercialization is extremely difficult for new concepts. Timing of commercialization is critical for both developing a realistic estimate of stake and for developing a plan.

During the concept identification phase of venture analysis, the earliest feasible commercialization date is usually used. It should be recognized that this time frame is almost always optimistic. More conservative dates are developed later as more information becomes available.

If the timing of the venture is tied to outside issues, such as a specific automotive model year or a government contract date, that date should be given with appropriate citation indicating that the date is relatively fixed.

How fast will the product penetrate the market?

Most products require some period of time to penetrate the market. In some cases the penetration rate is determined by the contractual arrangement, such as in supplying a specific automobile model. In most cases, the penetration is dictated by market forces and production limitation.

The penetration of a new product can be estimated by comparison with other similar products. Analysis of a large number of products has indicated some consistent behavior which can be used as a first order estimate. Below are listed the estimated sales or shipments relative to the first year sales potential. These values should be multiplied by the first year sales potential in units or pounds.

Year	0	1	2	3	4	5
Sales	0.005	0.018	0.050	0.112	0.211	0.350
Year	6	7	8	9	10	
Sales	0.526	0.732	0.962	1.207	1.464	

What is the sales opportunity for the product by application?

For each application, the opportunity should be estimated. This includes applying the estimate of share and penetration to the potential estimates. Notice that each application may be commercialized at different times. Note the date of commercialization for each application.

What is the likelihood of success by application?

Opportunity =

Functional Potential X Share X Penetration

The commercialization of new ventures is not without risk. Estimate the likelihood that each application can be commercialized at or within the time frame and at or above the estimated opportunity.

Generally, the estimation is done in parts: (1) the likelihood of developing the product; (2) the likelihood of market acceptance if it is developed; (3) the likelihood of obtaining adequate management support; (4) the likelihood of meeting customers expectations within cost; and (5) the likelihood of the market responding as expected given that the product meets targeted specifications.

These probability estimates are usually considered to be independent. The collective probability is the product of these probabilities. While each of these factors may be likely to take place, the collective probability for new ventures is rarely higher than 50%.

$$P_c = P_1 \times P_2 \times P_3 \times P_4 \times P_5$$

What is the total risk adjusted opportunity for this business.

The business opportunity is estimated by combining the likelihood of success and the application opportunity and summing together the application opportunity for each appropriate year.

Single measures of business opportunity are usually selected. These typically are the fifth and tenth year after commercialization.

Risk Adjusted Opportunity =

Application Opportunity X Likelihood of Success

Total Opportunity = Sum of Risk Adjusted Opportunities

What are the critical questions for continuing the analysis of the project?

The development program for new ventures must focus on the critical questions and issues. These questions should be listed first and revised as issues are identified.

It should be realized that the process of exploring for this information will likely change the focus of the business concept. During the early phase of business development such changes should be expected and encouraged. Few successful businesses were originally focused on products and markets that eventually were responsible for their success.

Is it feasible to make this product or deliver the service?

What information must be gathered to confirm or refute the feasibility of making and delivering the product or service that will meet customers'

How well will the product meet customers' expectations?

expectations?

What information will confirm that the products, as conceived, will meet customers' expectations?

How extensive is the product patent position?

Will it give competitive advantage?

The potential for basic, composition of matter, and application patents must be discussed. The relative strengths of patents are not easily assessed without court action, but estimates can be generated. The potential importance of adequate product patent protection should be covered.

Do we have prototype products to show customers?

At some point prototype products will need to be produced. The sooner the better. Describe the prototype products and how they will be produced.

How do the customers tell us if they will purchase the product?

How should we obtain potential customer input into the development process? If marketing research is needed, describe the resources that will be necessary.

How can we determine if the market prefers the products and services?

A concept test can be critical to verify the viability of the business concept. This involves some level of marketing research. Market research can run the range from "self-study" to in-depth interviews and "focus groups". Tests performed by an outside resource, not directly connected with the venture, tend to improve credibility.

What do the customers expect the products to do and what services do they expect from us?

A procedure to obtain customer use information should be designed.

Will the customer commit to purchasing the product if his expectations are met?

Some "objective" means of obtaining a measure of customer commitment should be derived.

How much will it cost to develop this market?

How long will it take to establish the product in this market?

What are the details of the process?

Can it be optimized?

What are the consistency and performance requirements for the products and services?

How much will the product cost to produce?

What is the required production investment?

Can this process meet the quality and cost requirements within the time frame of this venture?

How extensive is the process patent position?

Will it give competitive advantage?

What are the requirements and conditions for a development partner?

The potential for patent protection for the process must be discussed. The relative strengths of patents are not easily assessed without court action, but estimates can be generated. The potential importance of adequate process patent protection should be covered.

A development partner is a producer or processor who will manufacture the products or services in total or in part. The intent is to use outside resources for manufacture to reduce investment and costs and to secure specific manufacturing expertise. The types of arrangements may be as simple as toll production, where the firm uses a contractor to process materials. Or it may consist of a joint venture to produce the product.

A key condition of the development partnership is that the firm maintains ownership of the product, either in part or totally, during the processing.

Whom should we consider?

The selection of potential development partners is usually complex. The conditions need to be identified as well as the candidates listed.

Are they ready to make a commitment?

Since the venture will rely on the development partner for production, a commitment is needed as soon as possible. The level of commitment should be identified.

What is it going to cost?

Since the development partner must be compensated for effort, the nature of that compensation should be noted. This includes any exclusivity that implied in the agreement.

What are the requirements and conditions for a customer partner?

A customer partner is a user of the products or services who is willing to work with us in its development. The intent is to work with him to test the product and verify its effectiveness and quality. The customer partner is intended to act as a source of market expertise and to help promote the product.

Whom should we consider?

The selection of potential customer partners is usually complex. The conditions need to be identified as well as the candidates listed. These conditions usually include the size of the customer and past working relationships.

Are the Customer Partners ready to make a commitment?

Since the venture will rely on the customer partner for testing and market information, a commitment is needed as soon as possible. The level of commitment should be identified.

What is it going to cost?

Since the customer partner must be compensated for effort, the nature of that compensation should be noted. This includes any exclusivity implied in the agreement.

What are the requirements and conditions for internal partnerships?

An internal partner consists of any group of an operating The firm's division that will cooperate in the development of this business.

Whom should we consider?

The selection of potential internal partners is usually complex. The conditions need to be identified as well as the candidates listed.

What is the nature of their commitment?

What is it going to cost?

Since an internal partner must be compensated for their effort, the nature of that compensation should be noted.

Are there any business acquisitions required?

Acquisitions are usually handled on a divisional basis. An outline of the needs for the acquisition and the targeted requirements should be noted. In most cases, an acquisition is viewed as a potential

What are the specifications for the acquisition and the firm's requirements?

assistance to the venture concept rather than critical to the venture concept. If an acquisition is critical, it should be clearly noted.

What strengths and unique competitive advantages does the firm have to allow you to be successful?

Not all potentially profitable businesses should be of interest to the firm. There should be some synergy between the firm's existing operations and the new venture concept to assure some competitive advantage to the firm. These need to be identified.

Can the firm successfully run this type of business?

The firm can not run every type of business. Some businesses fit the firm's type of operation better than others. Some assessment of similarity and synergy must be obtained.

Which existing company markets do you expect to exploit in developing this business?

Common markets and existing marketing strengths can be a strong competitive advantage. How the existing marketing strengths will be exploited should be discussed.

What existing company production facility or processes do you expect to successfully utilize?

If under-utilized production facilities are to be used, the nature of the usage and any necessary modifications should be discussed. The identity of the organization involved with the facility should be mentioned.

What company "know-how" will give you competitive advantage?

"Know-how" including how to run the business, can be critical to the business. Include both technical and business expertise.

What relationships possessed by the firm could be of help in this venture?

Include supplier, customer, and distribution relationships. Do not overlook other possible sources of advantage including academics, the

research community, and publications.

What other relationships possessed by the firm should be considered in addressing this venture?

Consider both internal and external relationships.

How much is this business worth to the firm?

The total worth of the business includes not only the financial opportunity but also some other strategic values. These may include: (1) the entry into previously unexploited markets or technology; (2) development of previously unsatisfactory business relationships; and (3) low risk exploitation of a new technology or business structure.

What are the key decisions that must be made to continue this business concept?

What information is necessary to make these decisions?

When must that information be available?

By convention, we use 24 timing checkpoints per year where great precision is not available or required. This convention uses numerical split months, either A or B. For example, early September is 9A, late September is 9B, etc.

Moving from split month Action Plan Timing to split month or weekly Gantt Chart Timing is generally easy. Some imposed timing may be very precise and this should be noted.

How will the information be obtained?

It should be noted that the results of the projects may not provide the desired information in the form originally planned.

Who is responsible?

For each project 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.

How will the program come together?

How to track the progress of the program?

PRODUCT OFFERING AND QUALITY**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.

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.

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.

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.

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

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

automotive company, direct selling is usually the method of choice.

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.

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.

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.

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.

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

	<p>"in-kind". List both the present functional competitors and those likely to arise in the near future.</p>
Who are the primary customers of the product?	<p>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.</p>
How is the product purchased by the primary customers?	<p>Who are the principal decision makers for the product in the primary customer's organization? How is the decision made?</p> <p>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.</p>
What are the benefits required by the customers?	<p>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.</p>
What costs are associated with using the product?	<p>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.</p>
What is the value-in-use of the product for the primary customers?	<p>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.</p> <p>Value-in-use is measured only from the customers' perspective and only in economic terms.</p>
What do the primary customers consider the value of the product to be?	<p>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.</p>
What are the relevant product attributes that contribute to delivering customer benefits?	<p>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</p>

	<p>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.</p>
<p>How well does our product perform on those attributes?</p>	
<p>How well do our main competitors in each primary market compare?</p>	<p>Identify their strengths, weaknesses and characteristics. Indicate in what markets they have advantage and which they have weaknesses.</p>
<p>What is the "expected" or reference price for similar materials?</p>	<p>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.</p>
<p>What is the price of the best alternative product or technology?</p>	<p>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.</p>
<p>Can different markets sustain separate pricing policies?</p>	<p>Markets and applications should be sufficiently different to allow independent pricing policies to be used in each market.</p>
<p>What price is being considered for the product?</p>	<p>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.</p>
<p>What price is being considered for the product?</p>	<p>Outline your estimate of these markets which could sustain separate pricing policies.</p>
<p>What price is being considered for the product?</p>	<p>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.</p>
<p>What are the customer's product specifications</p>	<p>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.</p>
<p>How well do the products meet them?</p>	
<p>How does the customer perceive the consistency of the product and how</p>	<p>Apparent consistency goes beyond meeting specifications. Variations in product attributes can be noticeable yet still within specifications.</p>

important is that consistency?

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.

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?

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.

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.

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.

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 require-ments on equipment, as well as operating costs.

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

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.

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.

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.

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.

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?

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.

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.

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.

What is the expected level of nuisance for each defect and key expectation?

Customers generally will tolerate some defects. Identify the level of defects in numbers and degrees that are expected. Indicate that level for each major type of defect.

What is the minimum observable level

For the defects and expectations listed for both expected performance and catastrophic

for each defect and key expectation?

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Who are the likely candidates for such partnerships?

Indicate the mechanism for forming such a partnership.

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.

How do product attributes relate to

Relate the product attribute levels with meeting customers expectations. Indicate the key

customer expectations?

customer expectations and relevant product attribute goals. Note that there can be several attribute goals for a single attribute, including performance and consistency.

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.

What are the measures of attribute compliance?

For each attribute goal, indicate the measurement and the technique used to determine compliance.

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.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.

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.

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.

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.

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

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

resource control.

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.

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.

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.

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.

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.

How will the program come together?

How to track the progress of the program?

OPERATIONS DEVELOPMENT

What products and services do you intend to sell?

This description should be as specific or as general as this 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. 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.

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. All, however, are considered to be customers.

If the product will be purchased more than once, either through a distributor or through subsequent processing where the identity of the product is maintained, (i.e. a Dacron Shirt) all customers should be identified. 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.

What tests have been performed to verify that the product concept would be of interest to the potential customer at the target price?

This requires "hands on" activity with potential customers. General statements of verification are insufficient as a user test. While concept testing is acceptable as a start, full use test by the customer should be conducted by an independent resource is desirable.

Indicate what procedures have been or are planned for testing the product.

What tests have been conducted that demonstrate that the product and services can be produced using the targeted technology?

This requires "hands on" effort in the production area. While full scale tests are desirable, laboratory, semi-works, and pilot plant tests are acceptable. Indicate the level of test and who is or will perform it.

What commitments have the potential customers made for buying this product and services from this business?

Indicate the type of commitment and to whom.

What are the potential applications or market segments for which the

While there are likely to be large number of potential applications, indicate only the major applications that will be developed immediately. These applications should provide sufficient

offering could potentially be used?

information to determine the viability of the business.

What is the economic value of the product for each of these applications?

The value-in-use or economic value consists of the highest price that the customer should be willing to pay for the product based on a comparison with the best competition. The value in use is generally computed based on a user cost model. This model includes all costs to the customer associated with using the product or its competition, including: its price, labor costs, additional materials, investment expenses, yield, capacity, and waste. Value-in-use is generally focused on industrial products.

Indicate the key financial advantages for using the product compared with competition and its value-in-use in dollars/unit.

What additional non-monetary value could be gained from using this product for each application?

There are value conveyed by product attributes that are not economically based. These attributes include quality, support, training, and image of high technology. While the value is not based on comparative economics, monetary evaluation of these perceived values should be estimated.

Identify these attributes and give an estimate of their value.

What is the estimated total value of the product to each application?

The total value consists of both the Value-In-Use and additional premium attributed to any non-included value. The total value is the highest price that the product can be priced compared with its best competition.

Note, however, that the customer will need to be given value in order to adopt the new product. Therefore, there must be some value that the customer will retain.

What are the potential annual sales possible for each application?

Indicate the sales in terms of physical units. The units should be comparable between applications. For example if a unit of weight is used, the same unit should be used for all applications. Volume should be in annual sales, units/year.

What fraction of the volume for each application is actually capturable by these products?

While a potential may be very large, only a fraction may be actually captured by this venture's type of product. Indicate the applicable fraction of each key application.

What pricing policy will be followed?

Indicate the price of the product for each application along. Identify how the price will be negotiated and under what conditions the price will be discounted.

Under the expected pricing policies, what share of the market for each application does this business expect to capture?

If there is replaceable in-kind competition then it is expected that the market will be split among competitors. Indicate the market share that you expect to eventually obtain in each major application.

What is the expected value-volume relationship for this offering?

An estimate of the demand curve can be obtained by plotting the capturable market against value.

How long will it take to penetrate this market?

For each major applications indicate when sales will start and how long should it to take to arrive at a threshold level of sales (i.e. 75% of the targeted sales). Express this in years and months.

How fast will that penetration take place?

For each of the major applications indicate how fast will sales grow. Give estimates from project management, sales, production.

What is the 10 years forecast for physical sales of the product?

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. The low estimate should be based on a reasonable but less than a good performance (assuming that the venture is undertaken as the product does basically perform). The high estimate should be achievable given existing plans for production, sales and service resources.

During the next 10 years how much money will come in from this business?

The revenue estimates are obtained by merging the price and sales forecasts. Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the sales forecast, the low estimate should be based on a reasonable but less than a good performance (assuming that the venture is undertaken as the product does basically perform). The high estimate should be achievable given existing plans for production, sales and service resources.

What process will be used to make the products and services?

Indicate key steps in the process.

What evidence supports the premise that products can be produced using this process within targeted costs?

Physical tests based on laboratory, semi-works, or pilot plants are needed. If such tests are not available, some must be planned to verify that the process will work. Indicate the tests that have been successful, plans for further verification if necessary, and evidence that the process is viable.

What are the steps of the process that will be used?

Use multi-level diagrams if necessary. Attach additional or auxiliary diagrams. Specify equipment if it has been determined for use.

How do materials flow about the process?

Use multi-level diagrams if necessary. Attach additional or auxiliary diagrams. Material and energy balances are desirable but not necessary.

What is the expected yield over the first 10 years for the process?

Yield is defined in terms of Quality product produced. Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the yield forecast, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production

What materials and energy sources and how much will be needed for the product?

and sales.

Specify all input materials and sources of energy into the process. Indicate those inputs over which the firm has control, of such as resins. Note the quantities per unit of production.

What capacities will be needed at each stage of the process to assure quality delivery of forecasted sales?

Do not include inventories. These are covered in a separate section. Include any need to hold product for inspection.

What inventory levels will be needed for raw materials, in-process, and finished products inventories to support this business?

There is usually a balance among the equipment flexibility, assurance of supplier delivery, desired responsiveness of the business, and required inventories. The selection of desired inventory level reflects the nature of the manufacturing process and the mission of the business.

What direct labor will be needed to produce the products?

Specify labor requirements in applicable site terms. Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the labor requirement forecast, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production.

What maintenance and support are required for the process?

Maintenance and support include all non-direct labor costs required to continue long term operations. It includes both routine, scheduled, maintenance as well as facilities to do critical repairs.

What technical support will be needed for the process?

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the yield forecast, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production and sales.

Improvement of yield, quality, and cost control do not happen without resources. Technical support includes all process staff dedicated to process improvement. For batch or campaigned production, include the costs of product change over.

How many customers must be supported over time for a successful

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the other forecasts, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production and sales.

Describe the customers in terms of their characteristics (i.e. demographic and industry charac-

business?

teristics).

What is the nature of the customers and the support necessary?

What general marketing strategy do you plan to use to promote this product?

Indicate how you intend to get customers to try the product and to use the product after trial.

What market segments will be targeted first for developing the business?

Indicate how you intend to look at the customers as groups. Marketing plans are usually formulated in terms of these groups or segments.

What evidence supports the use of this marketing strategy?

Indicate existing market behavior, previous "hands-on" experience and marketing research information that supports or questions this strategy.

How large a sales force is needed to support this business, in compliance with the marketing strategy?

Sales just don't happen. Sales people must go out, gain and maintain business. Include with the sales force all costs for maintenance (i.e. travel, office expenses and clerical assistance). Customer technical support is considered separately and is not included here.

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the other forecasts, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production and sales.

How large a customer technical support staff will be needed to implement the marketing strategy?

Industrial sales tends to require customer support, particularly during the qualification phase of introduction. Indicate all customer technical support expenses including R&D and out-of-pocket costs. If prove-out requires the purchase of customer materials, that cost also should be included.

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. As for the other forecasts, the low estimate should be based on a reasonable, but less than a good performance (assuming that the product can basically be produced with the outlined process). The high estimate should be achievable given existing plans for production and sales.

What is the goal for the promotional effort by market segment?

Include direct assistance, conferences, product information, sales aids, special promotional campaigns and, exhibits.

How much will the promotional effort cost, excluding print advertising and mass communications?

What role will advertising play in the promotional plan?

Include any cooperative advertising programs that are expected whether it is customary or unique.

How much will that advertising program cost?

What role will rebates and discounts play in developing the market?

Indicate the size of the rebate and discount and the conditions under which the rebate or discount will be effective.

To what fraction of sales will they apply?

How much will rebates and discounts cost?

What will be the return and warranty policies?

Describe the return and warranty policy. Include the objectives of the policy and its rationale. Indicate the conditions by that must be met and the method of verification.

To what fraction of sales will they apply?

How much will rebates and discounts cost?

How will the product be packaged for the end-user?

Indicate any provision for packaging for the end user. If labeling is necessary for the end-user, indicate how that information is conveyed to him.

Indicate any competitive advantage conveyed by packaging to the end-user.

How will the product be packaged for distribution?

Specify the physical structure of the packaging including labeling and palletizing. Indicate the reasons for using any unconventional techniques. If unconventional sizes or types of pallets are used, indicate how they are to be disposed.

Indicate any competitive advantage conveyed by packaging to the distributor.

How much will packaging cost during the first 10 years of the venture?

Indicate both average cost per unit and the total costs. Indicate if packaging requirements for special grades creates distortion in package costing; for example sterile packing for medical applications.

How will the product and services get to the end-user?

Describe the mechanism by which product is transferred through the distribution channel to the user. Indicate who owns the product along the channel and what agreements or arrangement have been made. Note whether any agreements for returning product have been given or implied.

What evidence supports that this method of distribution will be

Indicate any direct, "hands-on" evidence for the effectiveness of this method of distribution. Indicate whether this method is traditional for the

successful and economical?

industry or novel.

**How will the product be transferred?
What is the value to each point in the
distribution channel?**

Diagram the flow; show the critical points; and estimate the product value at each point.

**How will the product be delivered to
customers?**

Specify the exact mode of transportation. For example, if a common carrier are to be used, what carriers. Indicate the distribution and delivery points; the timing; and special arrangements.

**How much will transportation cost and
who will pay?**

Indicate whether is payment is by the firm or the customer. If payment is to be split, indicate the nature of the arrangement as well as any liability for shipping charges.

Indicate the basis for transportation charges (i.e. point of origin, full truck, etc.) Separate international charges and indicate the currency that those charges are to be based.

**How will the business be paid for the
products and services?**

Indicate who will pay whom for the product and how payment will be made.

**What will be the terms of payment?
How much credit will the firm extend to
the customers?**

The terms of payment include the nature of the payment, timing, and credit. If any discount is made for early payment or penalty for late payment it should be noted.

**What support will be needed to
develop this market?**

Include all customer technical support. Indicate if consultant will be desirable to facilitate customer acceptance.

**What start up costs and customer
product warranty support will be
needed to encourage market
development?**

Include payments for trials, if necessary, as well as purchase of trial product.

**How much R&D support will be needed
to develop the business over the first
10 years?**

R&D support beyond process and customer support are often necessary for new product and business development. R&D can provide information on the product and the process, and also on customers' processes. This can be necessary to build and maintain competitive advantage.

Include within the R&D support, is that necessary for the Product Quality program. Cost estimates should be based on man-power requirements in assigned staff (man-years).

Indicate bounds on the forecast by giving a low and high estimate as well as the expected value. The low estimate should be based on a reasonable optimistic view of the business.

**How much will management cost this
venture?**

Indicate the number and level of management personnel needed to support the business. The management staff should reflect the size of the business unit. Use partial charges for managers

What are key potential events that could impact the business?

with joint project responsibility, i.e. 1.2 managers might be one full time manager and one fifth of a upper level manager or co-assigned manager.

Identify those factors beyond those covered with general uncertainty in volume, price, timing and manufacturing costs. Indicate the specific events including the conditions, potential outcomes, impact on sales and earnings, and their likelihood. Include such items as entry of competition and potential government action.

What are the critical issues for further development of this venture?

Specify the critical issues that must be addressed or monitored during the next phase of the development process. These issues are critical, in that they can determine whether the venture should be commercialized. Issues that could be under the control of the business should be addressed; those that are external to the business must be monitored.

What key elements need to be undertaken to assure that the customer will buy the product at the targeted price?

Indicate the program elements, their objectives, and when they need to be completed.

When will a functional prototype of the product be available?

What patent-related action needs to be taken to allow external testing of the prototype?

When will materials be available for customer in-site testing?

What take-out procedures will be used?

What data should be presented to the customer and by whom?

Will the customers be under secrecy agreements?

When will basic data fro the process be available?

Indicate check points for the process definition and requirements and the dates for completion. The intermediate check points or milestones should be selected to assure that the final basic data and design of the process is sufficiently complete for an authorization request on the facilities.

When will the process be proven-out using tech lab and/or pilot plant facilities?

Indicate check points for the process prove-out and the date for completion. The intermediate check points or milestones should be selected advise the management of potential problems. The process should be proven with sufficient confidence to allow product delivery

When will precise cost estimates for the commercial facility be available?

commitments.

Indicate check points for the facilities costing and the date for completion. The intermediate check points or milestones should be selected to assure that the final facilities cost estimate is sufficiently precise for an authorization request.

When will a market development manufacturing facility be available?

This facility goes beyond laboratory or tech lab scale and may be a sophisticated pilot facility, a semi-works operation or a dedicated commercial operation. The facility must be able to provide commercial quality materials in a volume sufficient to meet immediate and short term demand. Describe the facility and indicate the resource required and timing.

What is the schedule for product availability for marketing and sales?

Indicate the quantity in units for each quarter starting from the first year of commercialization. Note any issue of product mix and expected changes for production facilities. Indicate the limit of pilot/semi-works capacity and the required timing for full production facilities.

Changes of product mix and production facilities may trigger delivery and quality problems. Indicate potential problems.

What customer partnerships should be formed?

Customer partnerships include any development or sales agreements, formal or informal in nature. Indicate what organizations are involved and their position in the distribution channel. Include intermediate users, distributors, dealers as well as traditional customers and end-users. Identify who in the firm's organization is responsible for negotiations and who sets the limits on those arrangements.

What is the purpose of the partnership?

Indicate the firm's and partner obligations. Include any security agreements and exclusivity arrangements and discussions.

What are the terms?

When will they be executed?

What provisions have been made to show the products to the trade?

Include all public and trade exhibitions being planned.

What is the timing for these shows and public demonstrations?

What product information and sales aids will be needed?

What advertising and promotional activities are planned for business development?

Advertising and promotion include all print materials, other than sales aids that are directed to potential customers.

What are the objectives for the advertising and promotional activities?

What are the messages planned to be conveyed?

Who are the targeted audience for the advertising and promotion?

What media do you expect to use?

Who will develop advertising and promotion?

Who is responsible for the program?

What provisions been made to assure adequate protection of the firm's information and trade property?

What kinds of marketing information and research are needed to assure that the marketing and development strategy will be successful?

These activities expand beyond concept and business tests to include selection of marketing activities, product design and pricing. The focus of the marketing information should be on the development of the business. Indicate key questions that need to be addressed to ensure development program validity.

What kind of competitive information should be collected to prevent the venture from being "blind sided" by competitive behavior?

Indicate key questions that needed to be addressed.

What R&D programs or actions are necessary to assure patent protection of the firm's technology and to prevent competitive action?

What key program elements must be undertaken?

Not all desirable activities can be undertaken. Select only those key elements that must be accomplished in order that an early evaluation of the venture can be made and a quality, well-targeted product enters the market as soon as possible. Relate each key program element to a critical issue.

What are the milestones for each program element and when will they be accomplished?

Who is responsible for each milestone accomplishment?

Responsibility must include the authority and resources to execute the program elements.

How to track the progress of the program?

Who is necessary to successfully complete this venture program through prove-out?

Specify the skills and disciplines needed. Where possible specify the individuals. If specified individuals are critical for rapid progress, indicate them.

How much will that man-power cost?

What out-of-pocket costs will be necessary to develop this venture through prove-out?

Indicate the categories for allocation of the out-of-pocket expenses. Routine expenses should be included in man-time costs.

What investment is needed during the development of the venture?

Indicate the reasons for the investment. Do not include working capital.

STRATEGIC AND COMPETITIVE PLANS

What products and services do you intend to sell?

This description should be as specific or as general as this 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. The more specific the product, 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.

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. All are considered to be customers.

If the product will be purchased more than once, either through a distributor or through subsequent processing where the identity of the product is maintained, (i.e. a Dacron Shirt) all customers should be identified. 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.

How are the markets structured geographically?

Markets, for this item, refer to the any possible customers for the product. The geographic market structure consists of those who would purchase the product; where they are located; and how much they might purchase. Indicate the market structure based on geography adopted by the Division, Department or the firm.

Where do you plan to participate?

How are markets defined?

Markets are generally defined in terms of the characteristics of the customers or the end user. Usually the markets are based on how the customers use the product or to whom they sell. Indicate how this business defines its markets.

How are customers grouped?

There are multiple purposes to group customers. They are traditionally grouped as markets or by a characteristic of the account (i.e. national accounts). Other types of segmentation can be used for marketing and planning purposes. Indicate how the business groups its customers into market segments.

What advantages do we have over competition regarding historical relations with direct customers, the distribution channel, and the end users?

Competitive advantage can derived from a preference of our customers to deal with specific aspects of the firm such as individual people, the business, the organization, or the firm in general. Indicate what advantage the business has in your relationship. Indicate how you verify the relationship is real.

What advantages do we have over

Product performance must be evaluated in terms of

competition regarding performance of our product in delivering customer benefits?

the benefits it provides to the customer. Indicate what overall performance advantage your product has over competitive products and technologies. Comparative product performance against competition is covered in detail in the next section, Threat Analysis.

What advantages do we have over competition regarding the perceived product quality as viewed by direct customers, the distribution channel, and the end users?

Product quality, here, refers to the overall view of the product's ability to exceed customers' expectations. Indicate your perception of how customers view your offering compared with competition. List all customers including: the direct customer, wholesalers, distributors, dealers, and users.

What advantages do we have over competition regarding perceived customer support?

Customer support can be critical to obtain competitive advantage. Indicate the nature and structure of customer support for this business and the competitive advantage that it provides. List all customers including: the direct customer, wholesalers, distributors, dealers, and users.

What advantages do we have over competition regarding delivery of technological solutions to problems?

Delivery of technology to the customer generally involves special knowledge that your business has acquired and is husbanding. The ability to deliver technological solutions to customers' problems can represent a significant competitive advantage. Indicate the types of technological expertise that your organization can deliver to the customer and how that translates into competitive advantage.

What cost advantage do we have over competition?

Having competitively low cost is a potential competitive advantage and always a financial benefit. Indicate what real and potential cost advantage this business has. Identify the source of that advantage (i.e., scale or technology)..i. Low Cost Producer;

What proprietary advantage do we have over the competition?

What advantages does that proprietary position give us?

Proprietary position is obtained by legal rights to use intellectual property. These include: patents on products, process, uses, or designs; copyrights; trademarks and tradenames; and trade secrets. Include in this category business information that could be critical for running the business or competing. Indicate what significant advantage the proprietary position gives the business.

What advantages do we have over competition regarding do to the location of our manufacture and business?

The old real estate truism, "Three most important features of a property are location, location, and location" has value in all businesses. The location of the business and its manufacturing can give competitive advantage. Indicate what, if any, competitive advantage is obtained from the location of this business and the geographic location of the firm.

What advantages do we have over competition regarding how our customers operate?

The way customers run their businesses can be of advantage to your business. Indicate an advantage that is derived from your customers' business practices. This can include their processes or business operations.

How are the customers grouped to represent their vulnerability to

The vulnerability segments represent groupings of customers that reflect their likely response to an

competitive threat?

attempt at penetration by an aggressive competitor. Indicate how the segments are to be defined. This may be outlined either in terms of expected behavior or by specific benefits and characteristics that protect from competition or exposure it toward competition.

Which customers or individuals make up each segment?

The opportunity segments represent groupings of potential customers that reflect their likely response to our penetration attempt. Indicate how the segments are to be defined. This may be outlined either in terms of expected behavior or by specific benefits and characteristics that favor our offerings.

How are the customers to be grouped to represent the opportunity for new business?**Which customer or individuals make up each segment?**

Indicate in-kind and functional, existing and likely near-term competitors. These are competitors which are in the market or have made some indications of short term entry. Identify the products and the market segments in which they are active.

Who are the competitors in this business?**What is the functional market share?**

The functional market share is the part of the total market your product controls for delivering the appropriate customer benefit. The competition includes both in-kind, in-type, and functional. Indicate share by market and geographically.

What is the in-kind market share?

The in-kind market share is the part of the total market your product controls compared with all other in-kind or "drop-in" competitors. Note that in-kind competition may include products that are chemically or structurally very different. The only requirement is that the customer views them as functionally equivalent and readily substituted in his process. B. World-wide Competitors

What is the growth of the competitors in your markets and regions?

Indicate the growth in physical volume by market and by geographic region. Include both past history and expected patterns. Identify the source of the information and comment on its reliability.

What are the competitors' sales and sales forecast?

Indicate the best estimate of their historical physical sales and our estimate of their forecast. Indicate the markets for which the sales are targeted, if feasible. Identify the units of sales.

What advantages do we believe our competitors have regarding historical relations with direct customers, the distribution channel, and the end users?

Competitive advantage can derived from a preference of our customers to deal with specific elements of our competition, such as his sales or technical people, his business, his organization, or his Corporation in general. Indicate what advantage the competition has regarding to his customer relations. Indicate how you verify that the relationship is real.

What advantages does the competition have regarding performance of our product in delivering customer benefits?

Product performance must be evaluated in terms of the benefits it gives to the customer. Indicate what overall competitive performance advantage the competitive products and technology have over your products.

What advantages does the competition have regarding the perceived product quality, as

Product quality, here, refers to the overall view of the product's ability to exceed customers' expectations. Indicate your perception of how customers view

viewed by direct customers, the distribution channel, and the end users?

competitive offerings compared with yours. List all customers including: the direct customer, wholesalers, distributors, dealers, and users.

What advantages does the competition have regarding perceived customer support?

Customer support can be critical to obtain competitive advantage. Indicate the nature and structure of customer support that competitive businesses offer and the competitive advantage that they gain from it. List all customers including: the direct customer, wholesalers, distributors, dealers, and users.

What advantages does the competition have regarding delivery of technological solutions to problems?

Delivery of technology to the customer generally involves special knowledge that your business has acquired and is husbanding. The ability to deliver technological solutions to the customers' problems can represent a significant competitive advantage. Indicate the types of technological expertise that your competition can deliver to the customer and how that translates into competitive advantage.

What cost advantage does the competition have?

Having competitively low cost is a potential competitive advantage and always a financial benefit. Indicate what real and potential cost advantage competition has. Identify the source of that advantage (i.e., scale or technology).

What proprietary advantage does the competition have?

Proprietary position is obtained by legal rights to use intellectual property. These include: patents on products, process, uses, or designs; copyrights; trademarks and tradenames; and trade secrets. Include in this category business information that could be critical for running the business or competing. Indicate what significant proprietary position the competition has and what advantage it gives his business.

What advantages does that proprietary position give them?

What advantages does the competition have regarding the location of his manufacture and business?

The location of the business and its manufacturing can give competitive advantage. Indicate what, if any, competitive advantage is obtained from the geographic location of the competitors. In particular, global trade issues can be critical. Indicate any such issues and advantages to location.

What advantages does the competition have regarding how our customers operate?

The way customers run their businesses can be of advantage to your competitors' businesses. Indicate any advantage that is derived from their customers' business practices. This can include their processes or business operations.

What is the manufacturing capacities of the competition?

Historically, sales share has been highly correlated with manufacturing share for materials and many industrial products. It is important to track the manufacturing capabilities of competitors. Recent changes in that capability may indicate a change in expectations for that business by a competitor. Indicate the capacity of the major existing and potential competitors and any recent changes expected in that capacity.

How do we expect those capacities to change?

What other products does the competition sell to our customers?

Many industrial products are sold by combined sales forces that sell several products to the same customers. The ability of a competitor to gain strength and credibility by selling allied products represents a

In what other businesses do they participate?

potential competitive advantage. Indicate all such situations for the major existing and potential competitors.

What is the financial situation of the competition?

The financial ability of a competitor to sustain low earnings or even losses is a measure of financial strength. That strength can translate into aggressive action. It does not reflect competitor's willingness to sustain those conditions. Indicate the for overall financial situation for the major competitors.

Could they sustain a price war?

What is the competition's technology exploitation capability?

The technologies and R&D capabilities of a competitor reflect options that he may wish to employ. Indicate the technological strengths and abilities of the major existing and potential competitors.

What is the intended position or mission of the competition?

The likely behavior of a competitor should depend on how he views his business. Indicate our perception of the competitor's view of his business. Identify how important it is him.

How important is this business to them?

What are competitors' target market shares?

Indicate what share of the market you believe the major competitors wish to obtain. Market stability reflect both growth and changes in market share. Stable markets reflect established relationships among customers and their suppliers. Indicate how stable you think the competitor believes the market to be.

Do they view the market as stable?

How does the competition view the firm?

Indicate how you feel competitors view the firm, in general, and this business in particular. Comment on the their perception of how important this business is to the firm. Indicate how we know this.

How does the competition price products?

Indicate pricing policy of the competitors. Identify who, each competitor believes, is the price leader in this market. Is there a difference geographically?

How will the competition respond to a price decrease or an increase?

Indicate this for both major and minor price changes. Identify the size of the price changes. Comment on historical experience with these competitors. Is there a difference geographically?

Are these desirable competitors?

Orderly markets are made of "good" competitors. Good competitors compete in a manner which does not disrupt the market or in a fashion that the firm does not wish to match. Indicate the degree to which each of the major existing and potential competitors are desirable.

What changes are expected in the Customers' products or way of doing business that could impact this business?

Indicate what changes in the customers' businesses could impact this business. Identify, if feasible, the specific customers or market or segment of interest. Indicate the likelihood of these changes. Comment on the source of information.

How could the Customer compete against this business?

In some markets the customer can compete directly with this business. Indicate the changes in the business structure that could or have led this to happen. Comment on the source of information.

What changes are expected in the

Indicate what changes in the customers' businesses

End-Users' products that could impact this business?

could impact this business. Identify, if feasible, the specific customers or market or segment of interest. Indicate the likelihood of these changes. Comment on the source of information.

How could the End-User compete against this business?

In some markets the end-user of the product can compete directly with this business. Indicate the changes in the business structure that could or have let this to happen. Comment on the source of information.

What key technological changes will impact this industry?

Technology encompasses scientific and engineering issues and changes in the way business is done. Indicate what technological changes will impact this business over the next ten years. Describe these technologies.

What is the nature of that impact?

How severe will it be?

How can we take advantage of the technological change?

When will those changes likely occur?

How fast will the new technologies substitute for the older ones?

Substitution of one technology for another is generally described by a "logistics" or symmetric "S" shaped curve. The penetration of similar technologies within an industry tend to follow the same rate. Indicate in the plot below the substitution history and forecast for key technologies.

What is the overall competitive risk to our business from technological change?

Risk is measured both in terms of the likelihood of the technological event and the likelihood that the event will have a major impact on the business. Indicate both the likelihood of the event and the impact if that event happens within the specified timing.

What are the key expectations of our direct customers?

Total Quality focuses on exceeding customers' expectations. In order to deliver Quality, the key customer expectations need to be identified. The direct customers are those who first receive ownership of the product. Indicate your perception of these customers' expectations and how well you meet them.

How well do we serve them?

What are the key expectations of our end-users and indirect customers?

Indirect customers and end-users consist of those organizations that use the product after its initial purchase from the firm. Indicate your perception of these customers' expectations and how well you meet them.

How well do we serve them?

What changes in direct customer expectations, "Quality", can be expected?

Change can usually be identified as an opportunity. Since the goal of Quality is to exceed customers' expectations, those expectations can be expected to rise. Indicate what changes in the direct customers' expectations are likely and how your business is positioned to take advantage of those new

Are we positioned to exceed these

expectations?

expectations.

What changes in end-user and indirect customer expectations, "Quality", can be expected?

Indicate what changes in the indirect customers' and end users' expectations are likely and how your business is positioned to take advantage of those new expectations.

Are we positioned to exceed these expectations?

What procedures are in place to correct complaints?

Complaints reflect unmet expectations. As such, they represent a source of information and a special area for Quality concerns. Indicate what procedures exist to verify and correct complaint.

What procedures are in place to monitor complaints and corrective measures?

Indicate what procedures are in-place to monitor complaints and assure compliance for corrective action.

What programs are in place to assure improved Quality?

Indicate Total Quality programs in place to assure improved Quality. Identify who is responsible for those programs and compliance with plans.

When would it be advantageous or disadvantageous?

Customization includes the development of new grades and products or relabeling to meet individual customer specifications. Indicate the type of customization, the customer need that will be met, the cost, and advantage.

How could the development and promotion of an application system provide competitive advantage in our markets?

A systems approach focuses on the totality of the chore that the customer needs to accomplish. The firm may be able, in some cases, to offer a group of products and services as a system designed to meet particular needs of the customer (i.e. printing system, X-ray System, etc.). Indicate the potential for strengthening the market position by using a systems approach to the market.

How much will it cost?

When would it be advantageous or disadvantageous?

How will our management respond to a competitive threat at a customer?

The nature and speed of response to a competitive threat is a sign of importance that management holds for a customer. Indicate how the organization will respond to a competitive threat and under what conditions.

What conditions will generate that response?

How fast will the organization respond?

Indicate how quickly the organization will respond and procedures put in place to assure response. Identify who is responsible for the decisions.

What needs to be in place to make it happen?

How will the organization identify new applications for the product?

Growth requires the identification of new applications or products. Indicate how those new opportunities are going to be identified. Indicate who is responsible and how those people who have identified opportunities will be rewarded.

Who is responsible for identifying and developing new applications?

How will that development be encouraged?

When would it be advantageous or disadvantageous?

Customer computing consists of providing computer support to the firm's customers, distributors, dealers, or end-users. Programs, computer packages, access to centralized information, and system assistance can be provided. Indicate what programs are planned, their costs and potential advantages and disadvantages.

How could the assurance of stable, long term, real price provide competitive advantage in our markets?

Assurance of stable long term price can be obtained by contract or by informal "understandings". Indicate whether such agreements are customary in this market and what advantages to the firm could be obtained by them. Identify whether such agreements are planned.

How much would it cost?

When would it be advantageous or disadvantageous?

How do we intend to maintain a price premium?

Maintaining price premium is a key route to sustain profitability of a business. Indicate what price premium this business has been able to sustain and what programs are in place to maintain it.

Under what conditions we will meet a competitive price or bid?

Indicate the conditions where the firm will meet a competitive price or bid. Identify who is responsible to determine price under competitive conditions and how long it will take him to respond. Discuss the consequence of competitive pricing and the probable response of the customers.

In what market segments and geographic regions will your business fight to maintain share?

Not all markets or regions are created equal. Indicate which markets and regions are of specific importance. Comment on how that importance will be communicated to competition.

What advantage could be obtained by eliminating product grades or variations?

Grade consolidation can help reduce costs. Indicate the potential advantages to product line consolidation and what, if any, programs are underway to reduce the product offerings.

What process developments could provide major improvement in product quality?

Indicate what process programs are underway to improve quality. Identify who is responsible and when the developments will be accomplished.

What cost saving could be obtained by elimination of low quality products?

The production of either low quality, broad specification, or non-standard product introduces costs. These costs involve reworking the product, handling materials, disposal costs, and/or reduced pricing. Indicate programs designed to reduce low quality products, their potential savings, and costs, identify who is responsible for the programs.

What cost reduction program is in place to assure the meeting the yield and cost forecast?

Indicate what process programs are underway to reduce costs. Identify who is responsible and when the programs will be accomplished.

What key technologies are being developed to assure a long term competitive advantage?

What resources have been allocated for this function?

What inventions are needed to provide a "quantum" competitive advantage?

What programs are underway to assure that the business will have these inventions?

Significant competitive advantage can be obtained with major improvements in technology. Indicate the need for such invention, the program, or potential route, for the invention, and the resources that are required. While it is not possible to precisely time invention, it is necessary to have a timing for when such developments are likely.

What are the historical sales and forecast for the product group?

A product usually can be considered as part of a group of products or benefits that are being given to the customer. For example, a new film product will be a part of all plastic films; a new car door window opener is part of all such devices. It is necessary to understand the history and at least a ten year projection of the product group in order to get an overview of the market. The historical sales and forecast should be in physical units, (pounds, square feet, or units, for example) either as annual sales or as installed units. Note the units being used. Use industry, sales force, and model projections.

What are the forecast and historical sales for the product in each part of the world?

Consider sales of the product geographically. The historical sales and forecast should be in physical units, (pounds, square feet, or units, for example) either as annual sales or as installed units. Use the geographic framework described in the Business Definition. Note the units being used. Use sales force and model projections.

What are the key current business assumptions inherent in this forecast?

What are the forecast and historical sales for the product by market segment?

Consider sales of the product by each market segment. The historical sales and forecast should be in physical units, (pounds, square feet, or units, for example) either as annual sales or as installed units. Use the market segments or the market framework described in the Business Definition section. Note the units being used. Use sales force and model projections.

What are the key current business assumptions inherent in this forecast?

What are the forecast and historical sales for the product?

If the business consists of only one one product of the product group, consider total sales of that product. The historical sales and forecast should be in physical units, (pounds, square feet, or units, for example) either as annual sales or as installed units. Note the units being used. Use sales force and model projections.

What are the key current business assumptions inherent in this forecast?

How do forecasted physical sales compare with a standard sale

The General Sales Growth Curve is a good description of the maximum speed that sales can grow during the growth phase of the business life cycle. The curve is

penetration pattern?

generated by fitting model to historical data. In addition to a forecast, the model generates an estimate of a growing market potential that the business could grow into, given continuing growth patterns.

How do forecasted physical sales compare with a standard sale pattern?

Econometric Models can be used to forecast sales for mature businesses. Such models are based on the assumption that sales of the product track general economic activity. Compare the sales forecast with the based econometric model available.

What has been the historical price and forecast for the product?

Use the average realized price. If a large variation exists among product grades, use the major grade and indicate the range of variation. Give the price by region or market, whichever is most appropriate for the business.

What is the "Experience Curve" Price Projection?

A standard for comparison between of price is the "Experience Curve". This curve assumes that "real price" should decrease with accumulated experience of manufacturing the product. The "real price" is the average price discounted for inflation. The accumulated experience is measured by the accumulated sales.

What is the comparison between the expected price and the "Experience Curve" projection?

Indicate the discount rates for the price. This may be the chemical price index or other appropriate index.

What is the "Market Scale Curve" Price Projection?

Market scaling is based on the assumption that price is tied directly to the scale of manufacture. The 6/10th rule asserts that revenues should increase with the sales raised to the 6/10th's power. This would follow traditional fixed costs for the chemical process industry.

What is the competitive price?

Indicate the expected market scale price, the average price, and the competitive price of the product.

What is the comparison between the discounted prices and "Market Scale Price"?

What is the price range of the product line?

Most businesses involve delivering a number of products to customers. These products are usually delivered over a range of prices. Examining the price distribution can identify the intensity of the business and potential opportunities. The price point distribution shows how much product is sold at what price.

What are the historical revenues from the venture and the forecast?

Revenue is the product of the average price times the physical sales.

What are the key current business assumptions inherent in this forecast?

What is the historical manufacturing

Yield is the ratio of acceptable product to that which could have been produced based on raw materials expended. Usually acceptable product is that which

yield and forecast yield?

can be sold for a profit over average direct costs. This definition should become more restrictive with time as the quality assurance program reduces any second, limited use, or wide specification grades or product.

Indicate all assumption in making the yield forecast.

What is the "Learning Curve" Cost Projection?

A standard for comparison between production and costs is the "Learning Curve". This curve assumes that "real cost" should decrease with accumulated experience of manufacturing the product. The "real cost" is the average cost discounted for inflation. The accumulated experience is measured by the accumulated sales.

What are the historical costs and forecast based on the "Learning Curve"?

Indicate the discount rate for the cost. This may be the chemical price index or other appropriate index...i. Learning Curve;

What is the "Market Scale Curve" Cost Projection?

Market scaling is based on the assumption that cost is tied directly to the scale of manufacture. The 6/10th rule asserts that revenues should increase with the sales raised to the 6/10th's power. This would follow traditional fixed costs for the chemical process industry.

What is the forecast based solely on improvements due to scale?

Indicate the expected market scale cost, the average cost, and the discounted cost of the product.

What technologies are forecast that could influence our costs in the next ten years?

Indicate and describe technologies that could impact this business over the next ten years.

What is the forecast for capacity?**How will that capacity be obtained?**

Capacity should be given in delivered units of physical volume by product.

How are feedstocks secured in the long run?

Indicate what programs are underway to assure feedstock availability for this business. Indicate what arrangements have been taken to control prices of feedstocks.

What is the forecast for needed investment in physical facilities?

Indicate all needed facilities, including new equipment, plants, and land. Note if any existing facilities will be retired or if rented, leased or subcontracted facilities will not be used. Otherwise, the new facilities will be viewed as a plant or capability expansion.

What are the key current business assumptions inherent in this forecast?**What are the historical earnings for this venture and its forecast earnings?****What are the key current business assumptions inherent in this forecast?**

Several measures of profitability that are typically used. The choice of the appropriate measure depends on the nature of the business. Typically, After Tax Operating Income (ATOI) is used. Other measures, such as After-Tax Earnings or the Cash In-

	<p>flow, may also be used. Indicate which measure is being used and why.</p> <p>Indicate all assumptions critical to this forecast. Indicate any discrepancy with the assumptions used for the other financial measures.</p>
What is the expected performance of this venture?	<p>There are several overall measures of performance generally used. These include: Cash Return on Investment (CROI), Return on Investment (ROI), Net Present Value (NPV), and Internal Rate of Return (IRR). The choice of measure depends on the nature of the business and needs of Departmental and Corporate management.</p>
How are you doing compared to your competitors? (bubble chart)?	<p>The "Competitive Bubble Chart" displays the relative share, market growth, and volume on a standard chart.</p>
How will the share change compared with the market?	<p>The "Momentum Bubble Diagram" displays the change in volume compared to that of the market. This is done for each market. Identify competitors.</p>
How has price changed compared with volume?	<p>The "Price/Volume Momentum Bubble Diagram" displays relative changes of volume against relative changes in price for markets.</p>
What are the critical issues and concerns regarding this business?	<p>Critical issues represent the problems and themes that require major attention now and in the near future. Indicate the critical issues as specifically as possible. Identify the timing of the issue to be resolved and the reason for its importance.</p>
What is the impact of these critical issues on long term sales and earnings?	<p>Indicate the potential impact of these critical issues on physical sales and earnings. Long term for this item is 5 years. Indicate the impact as either a percent change or as an increment.</p>
What key events could materially impact this business?	<p>Key events refer specific measurable occurrences that could significantly impact the business. Indicate the events, their likelihood, their impact and the method by which they will be monitored.</p>
What is the likelihood of occurrence?	
What is their probable impact on earnings and sales?	
How will they be monitored?	
What is the range of probable sales?	<p>Indicate the range of probable physical sales. Identify the likelihood of the high and low estimate taking place.</p>
What is the range of probable earnings?	<p>Indicate the range of probable after tax earnings. Identify the likelihood of the high and low estimate taking place.</p>
What is the range of possible competitive reaction to our plans?	<p>Indicate what are the possible reactions of both existing and potential competitors to our plans. Identify manufacturing expansions, pricing, and</p>

What are your assumptions regarding the risks involved in this business?

marketing potential actions.

The range of earnings and revenues can be shown by distributions of each and the bivariate distribution of both. The bivariate distribution is sometimes referred to as an opportunity envelope, since it represents the range of possible outcomes.

How much could fifth year Earnings and Revenue vary?

How much could fifth year Cash-In-flow and Investment vary?

The range of cash-inflow and investment can be shown by distributions of each and the bivariate distribution of both. The bivariate distribution is sometimes referred to as an opportunity envelope since it represents the range of possible outcomes.

How Cash Return on Investment vary?

How are you going to react given unexpected major events occurring?

In an ever changing world, contingency planning allows the business to take advantage of opportunities and to minimize the effect of unfortunate occurrences. Indicate the unexpected, but significant, events that must be anticipated; the action that will be taken; and the resources that must be available to go forward.

What is the directed mission of this business?

The mission of the business is dictated by what it can do for the firm as a whole. Be specific as to the overall mission for the business. Include not only the general statement, but how it is being interpreted.

Is this feasible, given the available resources?

What is the "best" alternative mission for the business?

What should be the "reach goals" for this business?

Business goals are set in terms of earnings, share, revenues, or return. Indicate what goals are being set for this business. Identify who in the organization is setting this goal and whether it is specific to this business or general over a class of businesses. Discuss under what conditions this goal is realistic or counter productive.

What are realistic sales and earnings goals for the business?

What are the milestones for the ultimate goals?

What are the key events or milestones during the span of this strategic plan. Indicate how we will know that each has been achieved and when it can be expected. Identify who is responsible.

When will you reach them?

What are key strategic items in each segment?

Indicate for each key market segment the specific strategy that will be followed in the immediate future. Identify the desired outcome or change and the approach that will be used.

What are the milestones by segment?

How will you reach them?

What are key long term action items in each segment?

Indicate for each key market segment the specific strategy that will be followed in the long term (2 to 5 years). Identify the desired outcome or change and the approach that will be used and the timing.

What are the milestones by

segment?

How will you reach them?

What are key strategies in each geographic region?

Indicate the geographic regional strategies for this business. Comment on their consistency and the need for coordination. Identify the desired outcome or change and the approach that will be used. The availability of resources can be a critical problem. Identify what shared resources are needed.

How will you allocate resources by geographic area?

What is the global approach to this business?

Grand strategy relates to the overall approach to the business. It describes the global means by which the goals will be achieved. It is more concerned with "Winning the Peace" than winning individual product or sales battles. Indicate the strategic principles that will govern the conduct of this business. Identify which markets and geographic regions will be emphasized and the manner in which business will be conducted.

What are the priorities in allocated resources?

What is the distribution and level of funding necessary to successfully implement this strategy?

Indicate required funding for all key functions for this business. Include all contractual assistance as well as internal resources. Indicate funds that may be necessary to implement contingency plans as well as those required for the business plan.

What man-power and skills are necessary to successfully implement this strategy?

Indicate required man-power and special skills necessary for all key functions for this business. Exclude contractual assistance unless the nature of business requires inclusion.

What sales effort is needed to successful implement the sales program?

Indicate the sales effort that will be necessary to successfully execute the marketing program. Compare that levels with the industry standards. Average estimates for various business conditions and structures are shown below. These figures are representative averages. Real businesses typically deviate from them in some manner. Indicate the logic behind either higher or lower levels of commitment.

What funds are needed to successful implement the advertising and promotional program?

Indicate the advertising and promotional effort that will be necessary to successfully execute the marketing program. Compare that levels with the industry standards. Average estimates for various business conditions and structures are shown below. These figures are representative averages. Real businesses typically deviate from them in some manner. Indicate the logic behind either higher or lower levels of commitment.

What total marketing effort is needed to successful implement the sales effort?

Indicate the funds that will be necessary to successfully execute the marketing program. Compare that levels with the industry standards. Average estimates for various business conditions and structures are shown below. These figures are representative averages. Real businesses typically deviate from them in some manner. Indicate the logic behind either higher or lower levels of commitment.

What product R&D effort is needed to successful implement the

Indicate the funds that will be necessary to successfully execute the product development effort. Compare that levels with the industry standards, if

business development effort?

available. Average estimates for various business conditions and structures are shown below based on PIMS data. Unfortunately, the basis for these estimate differ widely from business to business and corporation to corporation. These figures are representative averages of those reported figures. Real businesses typically deviate from them in some manner. Indicate the logic behind either high or low levels of commitment.

What process R&D effort is needed to successful implement the process development effort?

Indicate the funds that will be necessary to successfully execute the process development effort. Compare that levels with the industry standards, if available. Average estimates for various business conditions and structures are shown below based on PIMS data. Unfortunately, the basis for these estimate differ widely from business to business and corporation to corporation. These figures are representative averages of those reported figures. Real businesses typically deviate from them in some manner. Indicate the logic behind either high or low levels of commitment.

How strongly are Divisional and Departmental Management committed to these goals, strategies, and long term funding?

OPERATIONS AND QUALITY PLAN

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. 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 expected service to the customer and user.

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

The market for the products consists of users and applications. The end-user of the product is located at that point or points beyond the direct customer where value is last obtained from the product attributes. Usually, the end-uses extend to the point where the product loses its identity. This is often dictated by marketing, where the end-user is made aware of the product content in his purchase.

Who are the primary customers of the product?

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

How is the product purchased by the primary customers?

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

The structure of the decision process can greatly influence the importance of offering attributes and the preferred method of approaching the customer.

What are the competitive products and technologies?

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. Competitive technologies can extend to totally different approaches to satisfying the customers needs. Indicate the type competition and the name of the key competing firm.

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, etc. In listing the attributes, focus on the customer benefits.

How well does our product perform on those attributes?

Indicate the performance of the product in terms of the key attributes for all major products. The way the performance is measured can be critical for verifying it. Indicate how the measurement is made and the criteria used to measure perfor-

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

mance.

Identify their strengths, weaknesses and characteristics. Indicate in what markets they have advantage and where they have weaknesses. Note any difference in measure of performance from the previous section. Identify the source of information.

What process will be used to make the products and provide services?

Indicate and describe all major steps in the process from raw materials to the point where the product is ready for sale. If standard procedures are used, they may be grouped together. Cite any documents that give complete description of the process.

Indicate if the step is a continuous or a batch operation. There are some processes between an ideal continuous and batch process. Under these conditions, indicate how the process functions over time.

How are the steps interconnected?

Show on a diagram the connection between the key steps of the process and control points. Indicate the logical flow of processes to make the final products.

How do the key processes work?

Describe the details of the key process elements. Indicate the types of processes needed and their criticality to the overall product.

What areas in the process require proven new technology or use unproven innovations?

New technology and unproven innovations provide competitive advantage, but require greater effort to implement and may be the source of variability in product. New technologies are defined in terms of this organization implementing the knowledge. In general, any technology that is new to the firm should be considered new to this business. Indicate all such technologies as well as those new to the world (unproven innovations).

What is the expected yield for the process?

For our purposes yield is defined as the ratio of the quantity of acceptable product produced to the quantity that could have been produced based on the largest amount of consumed raw material. Indicate expected yield for the first and third year, and the ultimate yield that we expect from this process.

What factors influence yield?

Indicate the factors that reduce yield and the steps in the process that influence overall yield. The importance is measured by the yield reduction that is attributed to that step. Identify those points where the yield improvement is expected to be cost effective.

Where are the points where resources can be applied to improve yield?

What capacities will be needed at each step of the process to assure quality delivery of the forecasted sales?

The capacity of the steps of the process usually varies to accommodate variation in yield, change over requirements and fluctuation in production. Indicate the capacity of each step necessary for this process. Indicate where removing

"bottlenecks" might improve capacity.

What are the energy sources and where will they be applied in the process?

How much will be needed for the product?

Where can energy be recovered cost effectively?

Comment on energy recovery potential and if cost effective, how it could be done.

How does material flow about the process?

Indicate on the process flow diagram where materials and products enter and leave the process. Include waste materials that must leave as well as finished products. Show the expected quantities of all materials.

How are materials separated?

Maintaining the separation of similar materials used to make the variety of products can be critical for controlling the process and establishing high product quality. Indicate the procedures for establishing and maintaining separate material flows. Identify how materials will be handled and when shared facilities will be used.

How do we assure no product contamination?

What systems are required to assure proper handling of materials?

How can we trace materials through the process?

Tracing and labeling materials are critical to trace problems and to identify opportunities for improvement. Indicate the techniques for tracing materials and finished products through the process.

How are the suppliers selected?

Indicate the criteria and process for the selection of suppliers and vendors. Identify who is responsible for their selection.

Who are the suppliers of key inputs to the process?

Indicate the external suppliers of materials, parts, and services to the manufacturing process. Include the general reason for their selection.

What provisions have been made to assure a continuous inflow of supplies?

Indicate the contingency action that is in place to assure continuous supplies of materials, parts, and services. Indicate the procedure to determine which items might be single sourced. If exclusive single sourcing is used, what assurance of supply is provided by the vendor.

How do we determine the needed inventory levels to support this business?

For each key raw material and finished product indicate how inventory requirements are determined. Identify the source of information and how might the inventory level be reduced with operations improvement.

What inventory levels will be needed for raw materials and finished product inventories to support this business?

For each key raw material and finished product, indicate the inventory requirements in terms of physical quantity.

Where in the process will the inventories be needed?

How much?

What direct labor will be needed to produce the products?

Direct labor consists of all wage and salaried labor directly associated with the production of product. Management, maintenance, and support are excluded from direct labor. Indicate the type of labor and special skills required.

Where in the process will the labor be applied

Indicate manpower in either hours per unit production or days/year.

How much?

How is the labor force selected?

The selection of labor can be based on skill level, technical expertise, cost, and availability. Comment on the advantages and problems. Describe the nature of the labor supply including the organization of labor (union versus non-union) as well as the use of contract labor and outside vendors.

What maintenance program is required to support the process?

Discuss the maintenance program in terms of objectives, structures and operations. Indicate preventive maintenance activities and how they will be monitored. Identify the economic issues and where feasible, the costs.

What are the waste materials from this process?

Waste is any and every material that needs disposal, other than the products to be sold. Materials that are sold as by-products whose mill costs are taken at zero, are to be considered waste.

How much waste is expected?

What special handling and storage is required for waste materials?

Indicate procedures, equipment, facilities, insurance and record keeping requirements.

How will the waste be disposed?

How will disposal be monitored?

What critical potential safety issues exist in the process?

How will they be controlled?

Products are typically packaged for use and for shipment. Indicate the packaging that will be used for the end-user. Often different packaging is used for different end-users. Indicate such variations.

How will the product be packaged for the end-user?

How will the product be packaged for distribution?

Packaging for distribution depends on the mode of transport and the needs of the distributors and retailers. Repackaging is often done by distributors and additional requirements may be imposed. Indicate the trans-shipment packaging that is used for the product.

How will the product be labeled for the customers?

Indicate any special considerations that are required for labeling and specific requirements for each type of customer.

How much will packaging cost during the next 5 years of the venture?

Indicate the cost of packaging for both shipment and end-use in terms of \$/unit. Include all expenses not previously assigned to manufacture directed toward packaging. These should include both out-of-pocket expenses for materials as well as labor and equipment costs. Design and promotional costs should not be included here, as they are handled as a marketing and promotional expenses. Tooling and printing expenses should be included.

What is the multi-function planning process for existing products?

The planning process for existing products should include input from all functions of the venture including: manufacturing, marketing, sales, and R&D as well as business management. Indicate how quality decisions are to be made regarding existing products. Indicate who is on the decision team. Identify when the process is undertaken and how often. Describe the process by which decisions are made and how customer input is obtained from those decisions.

How many and what variations of the product are or will be produced?

Multiple products are usually produced from a single facility. Some of these product variations are designed to meet customer needs. In some cases variations are created because of the nature of the process and are sold as different product grades. This is often a sign of poor quality control. Indicate the product variations that are expected.

Why?

What are the expected variable costs for the products?

Variable costs are the unit costs that are incurred directly by the manufacture of a unit of product. They are directly assignable to the product and would not be incurred if the product were not produced. They include goods, materials and power, purchased for producing each unit of product and any incremental unit of labor directly associated, which could be withdrawn. Estimate these costs at typical production volumes.

Indicate the variables for each type of product expected over the next five years. Variable costs should be expressed as cost/unit.

What are the fixed costs of producing the products?

Fixed costs are those costs associated with the operations of the manufacturing facilities. These usually include a minimum portion of the energy and labor costs that must be incurred to remain in operation. Management, basic operations, and site expenses are usually included.

Fixed costs are often assigned to the unit of manufacture. If so, indicate the charges against each type of product. Estimate these costs at typical production volumes.

How much does it cost to make the products?

Indicate total mill costs as variable costs plus a charge for fixed costs. Express costs as cost/unit.

How does the cost vary with

Indicate the variation of cost with scale. Do this as a fraction change in costs, against a 35%

production?

change in volume.

What is the schedule for product availability for marketing and sales?

Indicate the quantities that should be available for sale for each of the key products. Comment on the total availability if overall supplies are constrained.

What system will be used to provide a demand forecast?

How will input from suppliers and customers be included in the development of prototype products?

A prototype product is a functional design or material that can be used for product testing. For this venture a prototype refers to a variation of the basic product concept. Initial prototypes generally are not manufactured using the process that will ultimately produce commercial product. Indicate the procedure by which prototypes will be initiated. Identify how communications with suppliers and customers will be assured.

How fast can the initial prototype be produced?

Indicate how fast first prototypes can be produced from the initial product concept and provided to the customer.

What process will be used to make prototypes?

The speed at which a new product is accepted by the potential customer depends on the availability of prototype products. Indicate the speed at which duplicate prototypes can be made, the process to be used, and the preconditions for producing prototypes.

How quickly can we produce prototype products for customer evaluation?

How will the prototype products be evaluated?

Indicate how the prototype or product concept will be evaluated prior to commercialization. Identify the conditions for evaluation with the customer. Will the customer be involved in a confidentiality agreement or a quality partnership.

What kind of relationship will exist with the evaluating customers?

What are the procedures and criteria for deciding to commercialize a new product variant?

Indicate the method and key issues to be addressed. Identify who is responsible for that decision.

How quickly can we commercialize a new product for which the prototype has been accepted?

Speed of commercialization can be critical to success. Indicate how fast a new concept can be commercialized and the facilities to be used for initial commercial product.

How much does it cost to develop a new variation of the product through commercialization?

Indicate the total cost for generating a new variant through the production of prototype products and expected costs of commercialization of a simple variation. Do not include production runs, but do include expected setup costs for commercial product. Identify how the variations will be obtained?

What are the benefits and costs that are required by the customers?

Purchases are done to get benefits. List the key benefits for the main decision makers of the primary customers. This information should be obtained with direct customer involvement, preferably using marketing research.

What value is obtained for the intermediate customers of 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.

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

What are the customers product specifications?

Consistency reflects ability of the product to meet customer expectations regarding specifications, apparent consistency, and presentation. These characteristics, ideally, are set cooperatively by the customer with his quality seller. Usually the perception of quality at the first inspection is the degree to which the customer perceives product quality and the capability of the supplier. B. Sources of Customer Dissatisfaction

How well do the products meet them?

What attributes of our product affects the processibility of the customers process?

The ability of the product to consistently run under a range of conditions in the customers' process is a key measure of quality. Runability centers on the ability to process or use the product given an apparent consistent user operation. Flexibility is the ability of the product to run under a wide range of conditions.

Indicate expected customer needs for technical assistance to begin using the product and to assist in problem solving on his line.

How do we understand our customers' process?

How much process disruption will the customer accept during the introduction of a new product?

The introduction of any new product causes some process disruption for the customer. Indicate how much disruption will be tolerated and who the customer believes should be responsible for any costs during initial testing and qualification.

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

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

What offering attributes operate to make the customer more competitive?

What services 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.

Indicate the speed of response to problems and the product assurance that are expected.

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 conditions and requirements to assure safety.

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

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

Of what unique issues could we take advantage which could make customers more interested in your product?

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 have no effect on any other. Some, however, 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.

How important is the meeting of each of these expectations?

All expectations are important. Some are critical for continued business relationships. Failure to meet these expectations will lead directly to lost sales and potential loss of sales from other company production. Failure to meet other expectations might produce irritation that could lead to lost sales and reduction of price premium. In these cases time is available for correction. Indicate the importance of the expectations on a scale from critical to moderate importance.

What types of complaints that are anticipated?

Complaints includes any expressions of concern or potential concern from the customer. Include all aspects of the offering. Price should be included, as well as delivery terms. Concentrate on apparent product non-conformities.

How does the organization respond to complaints?

Indicate how the business is organized to respond and to determine the root cause and corrective action.

At what level of nonconformity (not meeting key expectations) will the customer consider changing suppliers?

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

What are the advantages and costs for customer partnerships?

Indicate catastrophic level, where the customer will seek a new supplier; the minimum observable level, below which the customer can not see improvement; as well as the expected level.

Indicate the specific advantages, costs, and risks to the firm and to its potential customer partners to undertake this arrangement. These advantage may include the potential for sole sourcing. Indicate any disadvantages, including shared price control and making cost data available to customers.

How we will establish trust and educate the appropriate organizations?

Partnerships are based on trust and close working relationships. Indicate how we will establish that working relationships. The working relationship will depend on common language and objectives. Education and training on quality are keys to the establishment of that commonality. Identify what resources will be available for training.

Who are the likely candidates for such partnerships?

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

What are the advantages and costs for such partnerships?

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

What is the suppliers role and involvement?

Indicate the role and involvement of the suppliers in these partnerships. Indicate the type and extent of resources that they must commit to the partnership.

Who are the likely candidates for such partnerships?

How do we know the relationship between product characteristics and customer expectations?

Relating the product characteristics levels with meeting customers expectations can be complex. Identify the procedures that are being used to relate product attributes and characteristics to key customer expectations and relevant product attribute goals.

How do product attributes relate to meeting customer expectations?

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

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, with 0 being unimportant and 6 being critical.

How are the standards of compliance developed?

Describe the procedure for setting standards on the measurement of product characteristics. Identify who is responsible for setting standard

What are the measures of product characteristic compliance?

measurement procedures.

For each key characteristic goal, indicate the measurement and the technique to be used to determine compliance?

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

Product that is non-standard (or out-of-specification) may be reworked or sold as a low grade product or discarded. In any case, a real and opportunity cost is incurred. This cost should be noted. Include in the cost any administration expense required to maintain the non-standard or derived "by-product" inventory and disposal fees.

What are the advantages and business costs of selling non-standard product?

If the product is unacceptable as a quality product it is often sold as a lower grade. Undertaking the sale of non-standard product incurs costs to the business in terms of its existing business and as well as carrying costs for the new products. Indicate the advantages and disadvantages of selling non-standard, lower grade products.

What are the added carrying costs of an non-standard grade?

These non-standard, "off-spec" product grades incur costs of inventory, marketing, and processing. Indicate all such costs.

How much non-standard product can be sold and at what price?

Indicate the quantity of the lower grade product that can be sold. Identify the application and the likely discount that will be needed. Identify the costs of exiting from the business if or when non-standard product is no-longer available.

What are the costs incurred by products being rejected by the customer?

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

What factors determine the desire by customers to return product?

Identify those factors and issues which lead to product returns. Indicate which of these are under the control of this business.

What will be the return and warranty policies?

Warranty and return policy are the conditions under which product may be returned for refund. Consider only cases of non-performance. Returns for non-sale or non-sold consignments, such as returns from distributors, are not included since that product can be resold.

To what fraction of sales will they apply?

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. Identify the Quality "vision" and focus for the business.

What are the immediate Quality objectives for the product and the

Indicate the organizational objectives regarding Product and Total Quality. Everything can not be done immediately. Indicate the short range

organization?

objectives and the time horizon for their accomplishment.

How are manufacturing, marketing, and research functions designed to provide Total Quality for the product and services?

In order to deliver quality in products and services the manufacturing, marketing, and research functions have to be coordinated. Ideally this should be both on a formal basis and operationally along the informal structure. Points for quality responsibility should be clearly identified and empowered. Indicate the type and level of resources required for Quality development.

Give the organizational diagram and indicate; (1) the positions of accountable quality responsibility (2) the lines of informal communications and (3) the level of authority for the business.

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

The only way to assure quality control is to educate the organization and foster individual responsibility. A system must be established with individual authority to make quality happen. Identify the individual with accountable responsibility for process quality assurance. Indicate his authority regarding product rejection and control. Indicate his other duties.

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

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 organization, customer relations and resource control.

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. Accordingly, 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.

What does management audit in order to assess continuous Quality improvement?

For Quality to be continuously improved, it must be monitored. What elements will management monitor and how will they be reported?

Who audits continuous Quality improvement?

Identify who is responsible for preparing Quality improvement reports and who reviews them. Indicate for what they are used.

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

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

What Quality training program is in-place to provide the tools for

Improvement of Quality requires the application of qualitative and quantitative tools. These "tools" must be taught to the people directly involved in

continuous improvement of Quality?

the process. Indicate the training and educational program, including group workshops for Quality development. Indicate the resources that will be used to provide guidance. Describe the organization that will provide the training. Indicate the level of management that will be involved in the training activities.

What activities are 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 assess the real customer benefits and conditions. Indicate the process that will be used to continually define customer expectations. Describe how that information will get to the appropriate people in the firm and to its Quality partners.

What are the sources of variability in the total product manufacture and delivery system that impact Quality?

The total delivery system includes all elements from raw materials to the delivery of the customer benefits. Any element of the chain must be considered a potential source of reduced Quality.

For each major quality-affecting product attribute, sources of variability should be identified.

What process monitoring and control systems are employed for the major sources of variability?

For each source indicate how variability in the process will be measured and controlled. Attach the process flow diagram detailing the position of the monitoring and control systems.

How can be product be redesigned to improve quality?

Are there aspects of the product which could be modified that would eliminate or reduce sources of variability? Are there total redesign options that could inherently give improved quality? Indicate these and estimate the cost impact of these approaches.

How do we know that these changes are acceptable to the customer?**What is the nature of the distribution of variation?**

Each source of variability can cause a different type of defect or nonconformity. The nature of the distribution of defects determines the type of control we need to employ. Distribution characteristics include the skewness of the distribution, the variability and the likelihood of time relations (autocorrelation). If feasible, indicate the model distribution that should be used (normal, log-normal, Weibul, Poisson, etc.)

What system is employed to monitor and control feed stock variability?

Indicate the sources of variability in feed stocks and the methods of monitoring and control. Include water, air and power requirements (i.e. incoming testing, supplier audits, etc.).

What is the feed stock rejection policy?

Indicate the conditions when feed stocks from suppliers will be rejected and the resupply policy. Identify the sources of variability in feed stocks and the methods of monitoring and control.

How do we know the impact of feed stock variation on product quality?

How are we going to encourage our suppliers to assure feed stock quality?

It is far better to never need to reject feed stocks! Indicate how we can encourage the suppliers to maintain and improve their quality program to meet our needs. These can include: price incentives, quality partnerships, design reviews, and the use of quality surveys and audits. Indicate what resources are required to implement these programs.

What system is employed to assure inventory Quality and material availability?

Things can change during storage. The procedures and system for verifying the quality and availability of feeds stocks, in-process inventory, and finished products inventories should be identified. Describe the system for controlling material flow. Indicate how this system will be implemented.

What is the highest quality (lowest variability) that the manufacturing process can deliver?

A yardstick is necessary to evaluate quality in the manufacturing process. Quality potential is an estimate of the highest achievable level presently conceived for the process. It should be noted that as more experience is obtained, this "lowest" level may decrease further.

Describe how the process potential is to be obtained. Indicate the resources that are necessary and the time frame for the study.

What is the highest quality (lowest variability) that the manufacturing process can deliver?

The results of the process potential study are estimates of the lowest achievable variability of key product characteristics. No process component can be total free of variation. Indicate the lowest achievable levels for those key parameters. Identify the type of measure being used.

What process redesign program is underway to assure that the process has the highest reasonable Quality potential?

Often the process can be redesigned or modified to reduce variability or to shift variability to a less critical attribute. Review the process and identify elements that should be reviewed for redesign.

How are non-conforming products and components monitored and prevented from being delivered to customers?

Testing, labeling, and disposal procedures should be indicated. A lot number convention should be indicated. The product rejection policy should be defined.

What type of product and component sampling is employed?

While 100% testing may be desirable, it is often impractical and unnecessary. Statistical sampling is traditionally used to test final product. If destructive testing is used, only statistical sampling can be done. Note the types and procedures for testing.

What is the likelihood that non-standard material will reach the customer?

Note that sampling procedures may be required by the customer. This may involve stratifying by batch as well as random selection within batches. Indicate when the procedures are required by contract or agreement with the customer.

What are the total costs of the product quality control and assurance program?

The resources for the product quality control and assurance program should be indicated. All direct labor costs should be included. Allocated overhead and management costs should also be given and separated from the direct costs. Do not include control costs necessary for the operation of the process. Include only those costs directly associated with assuring quality.

What cost control program is being employed to review and reduce production, marketing and administrative costs?

Customer expectations include reduced future real prices. Cost control and reduction is necessary to meet this expectation while also returning a reasonable profit. The cost control program is viewed as a part to the Total Quality Management program. Indicate the key elements and objectives for the program.

How are complaints and returns monitored?

Complaints and returns are key sources of information, though uncomfortable ones. The ultimate goal of quality is the elimination of complaints and returns. A system needs to be available that tracks and analyzes complaints and returns to determine the problem source and appropriate corrective action.

There are four elements in a typical complaint/return system: (1) data collection, (2) analysis, (3) communications, and (4) corrective action. The first three elements form the monitoring system and should be described here as well as the objective for its development.

In order to determine the cause of defects or the non-conformity, the complaint systems has to be merged with production data. This is done either in the communication element or during analysis. Describe how this is to be done. Indicate how the information is to be distributed to all functions in the business: Marketing, Manufacturing, and Research.

What system is established to respond to complaints?

Correction action to complaints is a joint responsibility of Marketing and Quality. Monitoring the complaint response provides further information on customer expectations and monitors service quality. A set of procedures should be available to establish proper responses. Describe the system.

How is ultimate customer satisfaction assured upon a complaint?

Indicate the nature of the follow-up program with the operational objectives and mechanism for establishing customer satisfaction.

How rapid is that response?

Indicate timing for immediate action by the sales force and technical staff as well as the timing for management decisions. If the sales force are not empowered to satisfy the customer, it is important to identify that authority and the timing obligation for action.

What procedures are used to examine returns and relate non-conformity to process history?

What analyses are performed to determine the cause of the defects?

Indicate the programs, systems and procedures that will assure proper handling of sources of defects. Identify who is responsible and the timing of action.

What procedures are in place to assure that major concerns are identified and addressed.

How is the quality of technical service measured?

Technical service and support is a key value-added component of the product offering. It is often a major differentiating aspect. Monitoring the quality of that service can be critical. Indicate how the quality of technical service is to be measured. Identify how the method of measurement was derived.

How is the quality of technical service to be measured?

Indicate the way the technical service performance and compliance to standards will be determined. Identify how customer input will be obtained.

What program is in-place to continuously improve the quality of technical service?

Indicate the program elements to continuously improve the quality of technical service. Include both responsiveness as well as performance.

How is the quality of sales calls monitored, compiled and distributed?

Sales calls and contact between the marketing staff and customers is critical and often the only contact. Impression of quality service is first and most often conveyed by the sales force. It is traditionally a key differentiating aspect of the business. Monitoring the quality of sales is critical. Indicate how the quality of sales calls service is to be measured in frequency, contact quality, and performance.

How is the quality of sales calls to be measured?

Indicate the way the sales calls performance. Identify how customer input will be obtained.

What training programs are in-place to assure continuous improvement of the Quality of marketing?

Indicate the program elements to continuously improve the quality of marketing.

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.

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.

How will the program come together?

How to track the progress of the program?

MARKETING AND SALES PLANS

What products and services do you intend to sell?

Describe the products and services that we 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. The more specific the product is, the easier it is to define the means of production.

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

How do the product and services get to the customer and end user?

The distribution channel consists of all the organizations and people through which the product and services must flow. Describe the distribution channel for this product by a flow diagram. The channel flow diagram indicates all participants along the marketing and distribution channels. Several channels may exist for physical distribution, for payment, and for dissemination of information. All elements should be shown on the diagram.

Note those members of the channel who take legal possession of the product.

With whom in the channel/chain will we transact?

Identify the specific individuals and organizations with whom we must transact business along the distribution channel.

What is the value along the distribution channel?

Business is transacted when two individuals along the distribution channel must transfer ownership or service. This takes place in a capitalistic society when both organizations obtain some value. Indicate the nature of the value and its extent for each transaction along the distribution channel.

What are the benefits our organization is devoted to deliver?

Indicate the benefits that the organization will provide to the users of its products, its end-users, customers, and resellers.

What are the physical properties of the product?

The products that a business offers typically cover a range. This is referred to as the product line or product mix. Describe the physical products and the product line. Identify its characteristics, attributes, and its physical properties, functions and dimensions.

Indicate the scope or range of properties that are to be offered.

What associated facilities and access

Any business can be considered as a problem solving activity for our customers. The business

to equipment give value to the customer?

solves some problems using the product and other facilities. Indicate what problem we need to solve, the facilities that are used, and how the problem is to be solved.

What physical attributes of the product provide value to the user?

Indicate the specific attributes or benefits that are delivered by the product. Identify the product, use, and market or application where the attributes are useful.

What characteristics, training, expertise or assistance of value to our customers provided by our sales representatives, are associated with buying and using our product?

The sales force represents the firm and can convey benefits to the users and customers. These benefits can include business and technical assistance and sources of information. Identify the types of valued assistance that the sales force renders to users and customers. Indicate the specific characteristics, training, and expertise required.

What characteristics, training, expertise or assistance provided by our technical support, are associated with buying and using our product?

The technical support conveys benefits to the users and customers both in terms of direct service and business and technical assistance. Identify the types of valued assistance that technical support renders to users and customers. Indicate the specific characteristics, training, and expertise required.

What characteristics of our distribution system provide value to our customers?

The distribution system conveys benefits to the users and customers both in terms of direct service and business and technical assistance. Traditionally, the distribution system provides credit and inventory storage. In addition, distribution can provide repackaging of the products and a broader selection of associated goods and products. Identify the types of valued assistance that the distribution system renders to users and customers.

What other characteristics of value to our customers are associated with buying and using our product?

Identify the types of valued services that are provided to this business' users and customers from other sources.

What is the history of the relationship between market and this business?

As a business develops, the relationship between the customers and the business evolves. The present relationship is, to some extent determined by past experiences. This history is determined by key events. These include: times when product was on allocation, price changes, new technology, and constraints on the use of the products. Identify these events, when they took place, their impact on our customers, and the business' action.

What is the character of having transactions with us?

Transactions focus on a one-on-one interaction between the business or support representative and the customer or user. All personal interactions have a style or character. This style or character is dictated by the personalities of the people involved, the corporate cultures of the firms they represent, the nature of the market and industry, and the relative functions involved. Identify the nature of the present character of transactions with this business and those that we

Who are the decision makers or members who make up the target market?

How do we know?

What is the target market's value to our business?

What do we want target market members to do?

What are the benefits we have delivered that are important to the target market?

How do we know?

How do we deliver the benefits?

Who are the competitors that look like us?

Who are the other competitors for this market?

would prefer. These characteristics may include general descriptors like: laborious, fun energizing, frustrating, confusing, etc. and such issues as timing of decisions.

Describe the market in terms that are relevant to the market and to our product offering. Note that we are considering only existing customers. Indicate the scope of our existing penetration into the market. Identify the decision makers in terms of function.

Indicate how we know who the decision makers are.

Importance may be derived from the size of the business, access to technology, access to market leadership, or any other strength that business with this market provides. Indicate how important these markets are to our business both collectively and as individual customers.

Marketing and sales programs are designed to produce specific results. Those results are actions taken by customers and particularly, the decision makers. Actions may include sustained or increased purchases, new qualifications, or activities delaying potential competition. Indicate specifically what actions we want these individuals to take.

Benefits are derived from using the products. They are not the characteristics of the product itself, but what the product does for the user. Identify the important benefits obtained by the user through use of our product. Compare the benefits derived from using our product compared with competition.

Benefits don't just happen. They have to be delivered. Describe how the benefits are derived from using our product or using the firm as a supplier. Indicate what actions the company must take to assure the delivery of the promised benefits.

Similarity of competitors maybe defined by behavior. We are interested in competitors who will behave like this firm. These are typically businesses that prefer an orderly quality market. These competitors may include both in-kind competitors and other competitors whose product technology may be different from ours.

In addition to competitors who behave like this firm, there are a number of other competitors that are distinctly different. These may include the customers themselves. Our customers or distributors may have technologies which allow them to exclude our products, but still satisfy our other customers. Other competitors may offer in-kind or functionally equivalent products both

What changes are required to maintain our competitive advantage?

which operates differently. Indicate all additional potential competitors. Identify how they behave differently from this firm.

What changes threaten our competitive advantage?

Changes in technology, markets and competition can effect our ability to maintain a competitive edge. Indicate changes required to maintain and expand our competitive advantage. Identify threats to our competitive position.

What we will do to stimulate the desired behavior?

Actions coinciding with desired behavior don't just happen. We can and sometimes must stimulate them to obtain desired results. Indicate those marketing and sales actions we will take to gain desired responses from market decision makers. These actions may include sales calls, assistance, and support work. If appropriate indicate the down side of each action.

How will we teach the benefits of transacting with us?

The advantages of using our product should be understood by customers. This often requires presentation and training. Indicate how we will convince our customer of the benefits of using our product. Identify who will accomplish this and what tools they will need.

Who will do it?

What should be the price of the offering?

Price range often limits the acceptability of a product. Premium products are generally limited to a small segment of a larger application segment. Estimate the price in terms of existing and potential competition.

What should be the credit terms for the offering?

Terms of credit can be as important in producing a sale as price. Only isolated markets allow for independent terms. In many cases, common terms are required. National accounts typically allow for negotiated terms. Indicate the credit terms that will be offered in each market. Note if there are any constraints imposing uniformity of offered terms.

What benefits should be emphasized in presenting the offering?

The presentation of benefits that a product can deliver position the product in the market. Identify the benefits that will be emphasized in order to position the product. Indicate the reasons for selecting that position.

What does success look like?

Success is elusive if we don't define it. Indicate, for each market, how we define success. Include both sales, goals and other quantitative actions that the customer should take.

Success can not be defined without setting the time frame. Identify the timing for these accomplishments.

How we will measure our success in the target market?

Based on our definition of success, indicate how it will be measured. Measurement should be as objective as feasible. Identify the type of measure and how the data will be obtained. Identify the timing for obtaining the information.

When we will take these

measurements?

Who are the decision makers or members who make up the target market?

How do we know?

What is the target market's value to our business?

What do we want target market members to do?

What are the benefits we have delivered that are important to the target market?

How do we plan to deliver the benefits of our offering?

Who are the competitors that look like us?

Who are the other competitors for this market?

Describe the market in terms that are relevant to the market and to our product offering. Note that we are considering only potential customers. Indicate the scope of our potential penetration into the market. Identify the decision makers in terms of function.

Indicate how we know who the decision makers are.

Importance may be derived from the size of the business, access to technology, access to market leadership, or any other strength that business with this market provides. Indicate how important these markets are to our business both collectively and as individual customers.

Marketing and sales programs are designed to produce specific results. Those results are taken by the customers and particularly, the decision makers. Actions may include sustained or increased purchases, new qualifications, or activities delaying potential competition. Indicate specifically what actions we want these individuals to take.

Benefits are derived from using the products. They are not the characteristics of the product itself, but what the product does for the user. Identify the important benefits obtained by the user through use of our product. Compare the benefits derived from using our product compared with competition.

Benefits don't just happen. They have to be delivered. Describe how the benefits are derived from using our product or using this company as a supplier. Indicate what actions this firm must take to assure the delivery of the promised benefits.

Similarity of competitors may be defined by behavior. We are interested in competitors who will behave like this firm. These are typically businesses that prefer an orderly, quality market. These competitors may include both in-kind competitors and other competitors whose product technology may be different from ours.

In addition to competitors who behave like this company, there are a number of other competitors that are distinctly different. These include the customers themselves. Our customers or distributors may have technologies which allow them to exclude our products, but still satisfy our other customers. Other competitors may offer in-kind or functionally equivalent products which operates differently. Indicate all additional potential competitors. Identify how they behave differently from this firm.

What changes are required to maintain our competitive advantage?

Changes in technology, markets and competition can effect our ability to maintain a competitive edge. Indicate changes required to maintain and expand our competitive advantage. Identify threats to our competitive position.

What changes threaten our competitive advantage?

What will motivate potential customers in this target market to self-identify to us?

Quality customer relationships are built on a partnership where the customer identifies with you and your product. In order to assure the development of a long term relationship it is important to motivate the potential customers to identify with us. Indicate the issues that can be used to motivate the customers to identify with us and what we can do to foster that identification.

What will we do to stimulate the desired behavior?

Actions coinciding with desired behavior doesn't just happen. We can and sometimes must stimulate them to obtain the desired results. Indicate those marketing and sales actions we will take to gain the desired responses from market decision makers. These actions may include sales calls, assistance, and support work. If appropriate, indicate the down side of each action.

How will we teach the benefits of transacting with us?

The advantages of using our product should be understood by customers. This often requires presentation and training. Indicate how we will convince our customer of the benefits of using our product. Identify who will accomplish this and what tools they will need.

Who will do it?

What should be the price of the offering?

Price range often limits the acceptability of a product. Premium products are generally limited to a small segment of a larger application segment. Estimate the price in terms of existing and potential competition.

Only isolated markets allow for independent pricing. In most cases, prices have to be set for the offering across a number of applications. Please note if independent pricing is possible and at what level.

What should be the credit terms for the offering?

Terms of credit can be as important in producing a sale as price. Only isolated markets allow for independent terms. In many cases, common terms are required. National accounts typically allow for negotiated terms. Indicate the credit terms that will be offered in each market. Note if there are any constraints imposing uniformity of offered terms.

What benefits should be emphasized in presenting the offering?

The presentation of benefits that a product can deliver positions the product in the market. Identify the benefits that will be emphasized in order to position the product. Indicate the reasons for selecting that position.

What does success look like?

Success is elusive if we don't define it. Indicate, for each market, how we define success. Include both sales goals and other quantitative

How we will measure our success in the target market?

When we will take these measurements?

Who are the decision makers or members who make up the target market?

How do we know?

Why is it desirable to disengage from these markets?

What do we want target market members to do?

Who are the competitors in this market?

What competitive advantages do the competitors have that makes them successful?

actions that the customer should take.

Success can not be defined without setting the time frame. Identify the timing for these accomplishments.

Based on our definition of success, indicate how it will be measured. Measurement should be as objective as feasible. Identify the type of measure and how the data will be obtained. Identify the timing for obtaining the information.

Describe the market in terms that are relevant to the market and to our product offering. Note that we are considering only existing customers. Indicate the scope of our existing penetration into the market. Identify the decision makers in terms of function.

Indicate how we know who the decision makers are.

It might be valuable to the business to disengage or withdraw from a market for many reasons, including lack of profitability. The market may represent a conflict with other business. The market may require a pricing policy which is inconsistent and potentially damaging to more profitable segments. Indicate the reasons for disengaging from these markets.

Marketing and sales programs are designed to produce specific results. Those results are actions taken by customers and particularly, the decision makers. Actions may include sustained or increased purchases, new qualifications, or actions delaying potential competition. Indicate specifically what actions we want these individuals to take.

Include all types of competitors. These include the customers themselves. Our customers or distributors may have technologies which allow them to exclude our products, but still satisfy our other customers. Other competitors may offer in-kind or functionally equivalent products which operate differently. Indicate all additional potential competitors. Identify how they behave differently from this firm.

Apparent advantage for the competitor in these markets can be derived from business strength, business position, and the way they wish to look at the business. Indicate why the competitors can successfully continue in these markets. Note that these reasons may not represent relative strengths compared with us. The reasons for succeeding in one segment may be the reasons for not succeeding in others. Success for a competitor may be a willingness to accept a lower return than we.

How will our disengagement affect our competitors' competitive advantage?

Indicate how the competitive advantage of our competitors will change if we withdraw from this market. That change may be due to their increase in share, reduction in competition, and any other factors that might change the business environment and practices.

How will our disengagement affect our competitive advantage?

All markets for a product influence all others to some extent. The effect is usually felt in availability of resources and product. The disengagement of this business may effect other company businesses. Indicate the effects of disengagement on the competitive advantage of this business and of any other company business.

What will we do to stimulate the desired behavior?

Actions coinciding with desired behavior don't just happen. We can and sometimes must stimulate them to obtain the desired results. Indicate these marketing and sales actions we will take to gain the desired responses from market decision makers. These actions may include sales calls, assistance, and support work. If appropriate indicate the down side of each action.

What does success look like?

Success is illusive if we don't define it. Indicate, for each market, how we define success. Include sales goals and other quantitative actions that the customer should take.

Success can not be defined without setting the time frame. Identify the timing for these accomplishments.

How we will measure our success in the target market?

Based on our definition of success, indicate how it will be measured. Measurement should be as objective as feasible. Identify the type of measure and how the data will be obtained. Identify the timing for obtaining the information.

When we will take these measurements?**How can the communications be improved for marketing success?**

Improvement of the communication and support technology can be critical for our marketing success. In particular, changes in technology allow for strikingly changed modes of communications. These changes offer opportunities for expanded sales. Identify objectives through which communications can be improved in marketing. Identify the potential benefits for the business.

What new communications technologies can give us a competitive advantage?

The new communications technologies (e.g. computer system, electronic mail, fax, telecommunications, bar coding) can have a broad impact on the marketing effort. Identify which technologies can be specifically tailored to improve the marketing effort in this business. Indicate the competitive advantage to this business for being first to successful utilize the technology in Sales. Also indicate any potential disadvantage for being first.

How do we plan to exploit them?

Specify the program for implementing the use of the new technologies. Identify the events and milestones for its implementation and timing. Identify who is responsible for the accomplishment of the event.

What is the competition doing?

Competitors are also exploring new marketing opportunities. Indicate the communications and communication technology activities that competitors in which may be engaged.

How will we support trade show and exhibit activities?

Trade shows and exhibits can be critical for the business. In some industries, the trade shows are referred to as Markets and represent the major sales opportunities. Identify the major trade shows and market in which the business will participate and indicate the coordinated Sales effort in support of those activities. Identify the timing of both the campaigns and the sales effort.

How will we support product introductions?

Product introduction requires coordination of promotional, technical, manufacturing, and sales activities. Identify the major product introductions and indicate the coordinated sales effort in support of those activities. Identify the timing of both the introductions and the sales effort.

How will we facilitate promotional campaigns?

The effectiveness of promotional campaigns are magnified by the coordination of the Sales effort. Identify the major promotional campaigns and indicate the coordinated Sales effort in support of those activities. Specify the timing of both the campaigns and the sales effort.

How will we support the customer with information?

Customer computing covers all efforts to assist the customer, reseller or user with computing and communications tools and to connect him to the business. Typically these programs include: development of customer and distribution networks, on-site computer systems, and business assistance programs. These activities are often undertaken as part of Quality Partnerships. Indicate the programs undertaken, the competitive advantage to the business, and the timing for completion.

How are we organized to get field assistance?

For field applications to be effective, the systems must be supported and the users trained. Indicated who and how the field staff will be supported and trained. Specify who is responsible for the support.

How will we train the field staff?**What behavior of our people is critical for our marketing success?**

Appropriate behavior of the sales force is dependent, in part, upon skills to deal with customers, users and with the functions within our business. Customer and user organizations often differ from the company in style and culture. These differences require appropriate behavior. Furthermore, the size and stage of development of this business may require a different set of appropriate behavior characteristics. This business may be highly entrepreneurial, or require more traditional sales

efforts, or be somewhere in between.

Identify the functions that must be accomplished and indicate special behavior characteristics and skills critical for their accomplishment within this business.

What is the basis for selecting sales force personnel?

Recruitment of the appropriate candidates is critical for all functions of a business. This is particularly critical for the sales force where specific skills and behavior are required for success. The sales force is also expected to function as the representative of the firm to the customers and as the representative of the customer to the firm. Many of the activities of the sales force tend to be unsupervised. Therefore, the selection of these individuals must be carefully done.

Specify the skills and criteria that will be used to select sales force candidates. Indicate the need for these particular skills to this business.

How will we select the sales force personnel?

Indicate the process of recruiting appropriate sale personnel. Identify the source of candidates. Identify who is responsible for the process and the quality of candidates.

How will we develop skills for people that emphasize desired behavior?

Indicate the specific programs that will be undertaken to develop the behavior that is needed. Identify who is responsible for the development program.

How are we training these people?

Training is a ongoing activity for the sales and marketing force. Training is used for developing personal skills and for conveying specific business expertise. Identify training programs that will be undertaken and who will attend. Indicate the skills that will be conveyed, and the business objectives for those skills. .i. Train Programs;

How are we rewarding these people?

Effective training of skills and continued practice of behavior requires positive reinforcement. Indicate the method of reward of the effective practice of key skills and behaviors. Identify the measure of the effective practice that will lead to rewards..i. Reward;

How are we training new people?

New sales people require training for required personal and marketing skills, as well as information in support of the marketing program. Indicate the training program for new people.

What is the competition doing in training and rewards?

Indicate the training programs and the reward systems that major competitors use. Comment on any competitive advantage that their approaches appear to give them.

How are we going to identify personnel who should be recalled from the sale

Not all people work out in sales, just as some people do not work out in other disciplines. Even individuals who were successful in sales for one business may fail in another which requires

force?

different skills and behavior. Specify the basis by which we believe that an individual is having trouble in the function. It should be noted that problems in sales may be caused by factors beyond that of the quality of the sale force. We must differentiate between external difficulties and the ability of the sales person.

We should clearly recognize that identifying an individual as a poor sales performer does not mark this person as "bad". The individual may have excellent skill sets for other functions. Indicate how that criteria for recall from Sales are to be measured.

How will we recall disfunctional sales force personnel?

Indicate the process of recall and how we intend to reassign the person. Note that it is critical both for the people involved and the organization that such recall is done with the proper kindness and in a way that does not disturb the business. Identify who is responsible for the process.

How is the sales force organized?

Markets are often organized by geography, by application, and by account. This imposed structure impacts the match of personnel to specific customers and the effectiveness of the marketing effort. Describe the process of selecting the customers for each sales person. Indicate how the skills of the sales people are matched to customers. Identify how the customers are divided into market segments.

What authority does the sales person have?

Describe the specific authority of the sales people. Identify who has the authority to set prices, terms of credit, returns and warranties, and cooperative promotional programs. If the sales person does not have direct authority, describe the negotiation process.

How responsive is management to a request from the sales force?

Effective marketing often depends on the speed of response. That response conveys importance to the customer and to the sales force. In addition, since all authority is rarely vested in the sales force, action by management is often necessary to complete sales. Indicate how quickly management will respond to a request from the sales force regarding specific customers and sales negotiations. Describe the provisions made to assure a timely response.

What provision is made to assure that response is timely?

What customer information is reported to management?

It is critical that information concerning the market be continuously reported to management from the sales force. Call reports are the usual vehicle for communications. Indicate what information is required in reports by sales force members..i. Call Reports;

How is the customer support staff organized?

Markets are often organized by geography, by application, and by account. This imposed structure impacts the match of personnel to specific customers and the effectiveness of the sales support effect. Describe the process of selecting the customers for each technical support person. Indicate how the skills of the

What authority does the customer support person have?

support people are matched to customers. Identify how the customers are divided into market segments.

Describe the specific authority of the customer support people. Identify who has the authority to request support and negotiate compensation. If the customer support person does not have direct authority, describe the negotiation process.

How responsive is management to a request from the support staff?

All authority is rarely vested in the support staff. Action by management is often necessary to complete the support effect. Indicate how quickly management will respond to a request from the support staff regarding specific customers. Describe the provisions made to assure a timely response.

What provision is made to assure that response is timely?

What customer information is reported to management?

It is critical that information concerning the market is continuously reported to management from the support staff. Call Reports and Customer Service Reports are vehicles for communications. Indicate what information required in Call Reports and Customer Service Reports by customer support staff..i. Call Reports;

How are complaints handled?

Complaint systems are set up to monitor the Quality of the system, assure prompt response, and to determine the source of problems. Describe how complaints are recorded, monitored, and handled. Indicate the provision to assure that all complaints receive prompt responses.

What provisions have been made to assure appropriate response to complaints?

Who is responsible for the effectiveness of the sales force, the customer support staff, and the complaint system?

Sales, customer support, and the complaint systems are often organized an various levels. Local responsibility is often geographic. Business and product control is limited to the specific product. Business Group level may handle overall administration. Indicate who is responsible for each level of management and administration.

What resources have been allocated for the sales effort?

Indicate the types and extent of resources that are allocated to the sales and support functions.

PRODUCT POSITION, PROMOTION, & DISTRIBUTION PLAN

How are the customers to be grouped for marketing and promotional planning?

Market segments are groups of customers who are considered to behave in a similar fashion. Indicate how the customers are to be grouped for use in marketing and promotional planning.

What products are being offered to the customers?

A product offering consists of all elements of the product including its image; services rendered both explicated agreed to and implicit to the product; and values attached to obtaining the product. Indicate all product offerings that are to be considered as part of this business.

What services are attached to those products?

Who are our in-kind competitors?

In-kind competition consists of drop-in products that can substitute for your product. These include both direct physically identical substitutes and other products that are indifferent to the user. No two are completely substitutable. Some effort is usually required to qualify the new product. Indicate the ease by which the alternative, in-kind competitors, can be substituted and the applications involved.

What effort is required for our customers to use an alternative in-kind product?

What is the functional competition for our product?

Functional competition consists of technologies that can replace the product. These include substitution of both the specific function or its need within the user's operation. Indicate the applications involved and the ease of substitution.

Who supplies that competition?

What are the key attributes of our offering?

Identify all potential characteristics that could differentiate us from competition. Indicate the relative importance for each key market segment.

What the key attributes of our competition?

What are the key customer benefits that our product is targeted to meet?

Benefits focus on values that the customer can derive from the product. Indicate the benefits that the customer derives from using the product. Indicate the benefits to each of the key market segments.

What are the customer needs that our product must satisfy?

Customer needs focus on the underlying reasons that the customer purchases the product. Indicate the customer needs that the product delivers or could deliver.

What customer needs could the product satisfy?

What attributes differentiate suppliers in the view of our customers?

Identify all potential characteristics from a supplier viewpoint that could differentiate us from competition. Indicate the relative importance for each key market segment.

How do we stack up as a supplier against competition in the view of our customers?

Compare this business against its main competitors in terms of the supplier attributes. Indicate on a scale of much poorer, poorer, equal, better, and much better the performance on the identified attributes.

How can we view our overall supplier

A perceptual map can be used to describe the perceived relative performance of competing

position compared to competition?

suppliers. Various techniques are used to show the perception of the market to competitors covering the large number of variables. Indicate any perceptual maps that have been constructed.

What are the key quality characteristics as viewed by the customer?

Quality is defined as meeting or exceeding customers' reasonable expectations. Identify the key customer expectations by market segment. Indicate the relative importance for each key market segment.

How do we stack up against competition in terms of quality?

Compare this business against its main competitors in terms of performance against key customer expectations. Indicate on a scale of much poorer, poorer, equal, better, and much better the performance on the identified attributes.

How can we view our overall quality position compared to competition?

A quality map indicates the relative position of the business compared to competition on meeting customer expectations. Various techniques are used to show the expectations of the market covering the large number of variables. Indicate any quality maps that have been constructed.

How do we stack up against competition in terms of product attributes?

Compare this business against its main competitors in terms of the product attributes. Indicate on a scale of much poorer, poorer, equal, better, and much better the performance on the identified attributes.

How can we view our overall product attribute position, compared to competition in terms of product performance?

A benefit map can be used to describe the relative performance of competing products in terms of the impact on customer benefits. Various techniques are used to show the benefits covering the large number of variables. Indicate any perceptual or benefit maps that have been constructed.

What are the key benefits that we wish customers to associate with our offering?

How would we wish to state those benefits?

What are alternative benefit sets that could be associated with our offering?

What are the key benefits and costs our key competitors wish customers to associate with our offering?

Markets are active. Not only will this business try to position its products, but competitors will try to position their products and if possible, yours. Indicate how the competitors would like to reposition your products for their best interest.

How might they wish to state those benefits and costs?

What are potential new offering opportunities based on unmet needs

New businesses can be derived from unmet needs and unfilled product positions. Indicate if

and product positions?

such potential opportunities exist.

What products are grouped together for promotional purposes?

What names do we wish associated with those product groups?

Product names are critical for customer recognition and for conveying product benefits. If user loyalty or a "user franchise" is to be developed and maintained, it usually focuses on the product name. The product group name usually sustains the identification of the product and business. Indicate the group name, the products to be associated with it, and the reason for selection. Indicate where the name has been registered as a trademark.

Why have those names been chosen?

What names do we wish associated with the individual products?

Product names differentiate products within a group or from competitive products. Indicate the product name, the product to be associated with it and the reason for selection. Indicate where the name has been registered as a trademark.

Why have those names been chosen?

What names do we wish associated with variations in the products?

Variations of products are made to differentiate the product, comply with customer needs, or to improve specific properties. A variant name may be a simple code or completely new name. Indicate the product name, the variant to be associated with it, and the reason for selection. Indicate where the name has been registered as a trademark.

Why have those names and designations been chosen?

What are the concerns regarding the use of those names and designations?

Group, product, and variant names can be used globally and in many applications. No name is without some limitations and concerns. Indicate the concerns regarding each of the key group, product and variant names used in this business.

What is the overall objectives and goals for the promotion and communications program?

Indicate the overall objectives and the mission of the promotion and communications program. Indicate the overall strategy in relation to the sales effort and the production and distribution programs.

How are the customers to be grouped together for advertising and communications?

Customers are grouped as market segments to accomplish various aims. Communications segments are formed based on the ability to communicate with them.

What are the specific objectives for trade advertising?

Trade advertising consists of the use of journals and publications targeted to an industry, trade, or business. This may include dealers and distributors as well as users of the product. Indicate the specific objectives, the time frame, and measures of accomplishment for the those objectives, for advertising to the trade.

What is the message in the advertising for each campaign?

Indicate what the message for the trade advertising is going to be. Discuss how this message was selected. The validity of the message refers to the determination of how meaningful the message is to the receiver. Describe how the validity of the message will be

How is the validity of the message to

be verified?

verified.

Who is the specific audience for each campaign?

The target audience consists of the people to whom we wish to speak or whom we wish to influence. Indicate who is the target for the promotional campaign and why.

What media will be used?

The range of media for trade communications is more broad today than ever before. While most trade communications is done through traditional trade journals, other modes may be available, cost effective, and less susceptible to clutter. Indicate the specific media selected. Identify the expected coverage and frequency of the target audience. Identify the source of the information.

Why?

If mass communications is planned, indicate the reach and share for the target audience and the source of those estimates.

Who is responsible for the trade advertising program?

Identify who is responsible for selection and "sign off" on trade advertising. Identify the agencies and suppliers that will handle the trade communications. Indicate the criteria used for the selection of agencies and suppliers.

What agencies and suppliers have been chosen?

What direct mail programs are to be undertaken?

What are the objectives and measures of success?

Direct mail campaigns consists of mailing literature directly to potential customers or influencers. Indicate the direct mail programs that are to be undertaken and the objectives that they are intended to accomplish. Identify the measures by which the success of the campaign will be determined.

What are the criteria for selecting the people to be solicited?

Selection of the people to be sent information is critical to the success of this type of campaign. Indicate how those people will be selected and the source of the mailing list.

What catalogue programs are to be undertaken?

Catalogues consist of all listings and descriptions of the products to be sent to potential customers or influencers. Indicate the nature and extent of the catalogue programs that are to be undertaken and the objectives that they are intended to accomplish. Identify the measures by which the success of the campaign will be determined.

What are the objectives and measures of success?

What articles are to be solicited to promote these products?

Articles are written either by users of the product or by academics and consultants and act as an evaluation. While they usually are not an explicit endorsement of the product, they tend to be favorable and act as examples of reduction to practice of the product.

What control has been imposed to assure results?

Indicate the nature and extent of activities to support and solicit publications and articles. Indicate what program is in place to help assure positive results from this effort.

What resources have been allocated for all trade advertising activities?

Indicate all costs of all trade promotion campaigns, including advertising, direct mail, catalogues, and publications. Break-down the costs by use and by source. Indicate separately agency charges and those from External Affairs Department.

What are the specific objectives for consumer advertising?

Consumer and mass advertising are intended to convey a marketing message to the general public. This is either directed at reinforcing existing trade communications or to educating the end-user to the existences and attributes of the product. Indicate the specific objectives, the time frame, and measures of accomplishment for those objectives.

What is the message in the advertising for each campaign?

Indicate the messages for the mass communications campaigns. Discuss how these messages were selected. The validity of the message refers to the determination of how meaningful the message is to the receiver. Describe how the validity of the message will be verified.

How is the validity of the message to be verified?

Who is the specific audience for each campaign?

The identification of the target audience is critical for effective mass communications. Indicate the criteria for selecting the audience and the characteristics for each of the mass communications campaigns.

What media will be used?

Indicate the expected coverage and frequency of contact with the target audience. Identify the source of the information.

Why?

If mass communications are planned, indicate the reach and share for the target audience and the source of those estimates.

Who is responsible for the consumer advertising program?

Responsibility must be in depth, covering both the agency, External Affairs and the Business. Campaigns, media, and copy need to be approved. Lines of responsibility must be clear and personnel available to assure prompt and effective programs. Indicate the individuals and organizations responsible for consumer promotion campaigns. Indicate the criteria used for the selection of agencies and suppliers.

What agencies and suppliers have been chosen?

What resources have been allocated for all consumer advertising activities?

Break-down the costs by use and by source. Indicate separately agency charges and those from External Affairs Department.

What cooperative advertising program has been/is to be used?

What conditions are required for reimbursement?

Cooperative advertising consists of programs whereby a supplier shares the cost of advertising his product by the reseller. These programs are traditional in many consumer oriented industries. They act to promote the product, as rebates to the reseller, and as a means of assuring point-of-sales promotion support. Indicate the cooperative advertising programs that are to be

What control procedures are impeached to assure compliance?

undertaken, their objectives, the conditions for reimbursement, and the control procedures.

What procedures and standards have been established to pre-test advertising materials?

What procedures have been established to track the effectiveness of the advertising campaigns?

What resources have been allocated to support the testing program?

What control procedures are used to assure that the business obtains the best prices on advertising space and promotional resources?

How are the products to be packaged for the user?

How are the products to be packaged for distribution?

What labels are required on and with the packaging?

What image and message should be conveyed by the packaging?

What designs and packaging innovations are being planned for the packaging?

What competitive advantage is obtained by these designs?

What special conditions are required for packaging construction?

How will the packaging be constructed?

Who has overall responsibility of packaging?

Advertising material can be both useful and detrimental to a business. It is important to verify that the advertising materials will do the job before committing to using them. Further, it is critical to determine if the materials have been effective. Indicate the methods for pretesting and post-testing advertising materials. Indicate what measures of effectiveness will be used.

Space costs vary greatly depending on the total quantity of purchased space and other agreements with the publishing organization. Corporate purchasing and that through the various advertising agencies may produce different rates. Indicate what control procedures will be used to assure the best price.

Packaging a key element in the promotional and advertising mix as well as provide functional performance. Indicate how the product is to be packaged for use and for trans-shipment. Several types of packaging may be used in trans-shipment. Indicate unique packaging conditions. Reusable trans-shipment containers or pallets should not be included.

Labeling requirements are both critical for identifying the product, legal constraints on the products use, and safety requirements. Indicate what labeling requirements are imposed on this product for both use and trans-shipment packaging.

Indicate the objective in package design and the message which is to be conveyed by the package.

Packaging can give unique competitive advantage. Indicate what designs and packaging innovations are planned and how we intend to protect the uniqueness of the packaging.

Who has design responsibility?

Responsibility includes people who must approve the packaging as well as those responsible for proposals, design, and execution. Indicate all individuals or groups responsible for packaging.

Who is responsible for manufacturing?

What major sales presentations are planned using professionally prepared materials?

Major presentations may be prepared as a "canned" talks for the sales force or as formal presentation by business or corporate management. Preparation of these material can involve significant effort. Indicate what materials will be prepared.

What is the goal for automated demonstrations and sales aids for this business?

Automated demonstrations and sales aids consists of computer driven presentations and shows. These are often used for "Desk Top" exhibits, in trade shows or for use by the sales force. Indicate the objective of the systems, and the date needed.

What specific automated sales aid systems are to be developed?

What audio and video presentations are to be prepared for distribution?

Indicate specifically what audio and video presentations were be prepared, how they will be distributed and what equipment will be needed to use them. Identify control procedures for distribution.

What competitive advantage is obtained using these systems?

Who is responsible for determining what support should be available for presentations?

What resources are available?

What product information sheets need to be prepared?

Product information consists of all published or compiled specifications and application data regarding products. This information is usually made available in the form of "tear sheets" or separate pages for the selected information and as packets of data sheets, application books and manuals. In addition, the data may be supplied as an automated retrieval system for use with a "hot line". Indicate the product information sheets that are needed; what information must be contained; and how often they will be updated.

How often do we expect to update these sheets?

What certifications and registrations are needed for these products?

Certification and registration are often required by localities and/or by application. Indicate the types and nature of certifications and registrations required by the product. Identify the localities and applications that will be covered. Indicate how they will be obtained.

How are they going to be obtained?

Who is responsible for certifications and registration?

Who is responsible for determining the validity of the product sheets?

What point of sales promotional aids are needed?

Point of sales includes all activities to promote sales at the dealer location. These include point of sales promotional tools: Counter Cards, Banners/Posters, and Displays/Racks. Indicate

What resources have been allocated for them?

an competitive advantage conveyed by this activity. Identify resources and conditions necessary to make this activity effective. Include inspection of dealers to assure that the point of sales aids are being used and encourage programs for their use.

What special skills and information are required for our sales force?

Sales force training is critical to assure consistent information to the customers and for effective marketing. Identify the special information and training requirements for the sales force. Indicate how the sales force will be trained and the materials needed.

How are they going to be trained?

What sales meetings are planned?

Sales meetings are used to train, inform, and encourage the sales force. These are viewed as a means of simulating the field groups, an exchange of information, and a method of developing cohesion within the organization. Sales meetings can also function as a reward for achievements. Identify the sales meetings that are planned. Include global, national, and regional meetings if appropriate. Indicate the objectives for these meeting and who will attend.

What are the objectives of each?

What is the schedule for the sales meetings?

Where will they be held?

Indicate the dates, location, resources allocated and the who is responsible for its preparation and financial control.

What resources have been allocated?

In which trade shows and exhibits will the business participate?

What are the objectives for participating in trade shows and exhibits?

Trade shows offer opportunity to test new concepts as well as to "sell" the products and the firm. Participation in these shows and exhibits may be targeted to sell or to "show the flag". Identify the trade shows and exhibits that this business will participate. Indicate the objectives for participation and the competitive advantage that will be derived.

What competitive advantage will be obtained by participating?

Who is the target audience for the tradeshows and exhibits?

What programs will be undertaken in connection with participation in the show?

What materials must be prepared for the trade show?

Who is responsible for space planning and utilization?

What agency or suppliers have been chosen for preparing exhibit materials?

Who is responsible for the participation decision?

What resources have been allocated for the trade shows and exhibits?

What public relations programs will be undertaken?

Public relations programs include: news releases, bilined articles, featured stories, case histories, and press conferences. Indicate range of responsibility of public relationships for this business. Include the scope of responsibility over plants, acquisitions, product information, and litigation. Indicate the specific public relationships programs, objectives, and message.

Who is responsible for releasing news to the media?

New releases regarding plant operations are usually handled by plant management. However other procedures may be in order. Indicate how news regarding this business and all plant sites involved in this business is intended to be release. Include issues of emergencies and plant closings as well as new product and capability announcements. Indicate whether and how press kit will be prepared.

How will news regarding this business be released to the public?

What special promotional campaigns are planned for this business?

What competitive advantage will they give?

What resources have been allocated?

How will effectiveness be measured?

Special campaigns are used to target market segments or to support new or revitalized products. Identify the special promotional campaigns planned, the competitive advantage that will be derived, and the measure of effectiveness that will be used. Resources are sometimes derived from redirecting effort into the campaign from other activities. Indicate what resources will be used and if appropriate, what other activities will be reduced to allow for the concentration of force.

What business tests are planned?

What are the objectives?

What resources have been allocated?

How will the results be monitored?

Business tests include concepting and as well as a full scale market tests. Identify the business or product concept to be tested; tests planned; and their objectives and resources required. Indicate how success will be identified.

What additional special programs are planned?

What are the objectives?

How much will they cost?

What is promotion activities going to cost?

Indicate the resources allocated to each promotional activity internal to the business, to External Affairs Department, and out-of-pocket.

What are the objectives of the distribution system?

There are a number of functions that the distribution system can deliver. These include prompt delivery of materials at a minimum costs with a minimum of inventory requirements. Not all of these objectives may be of equal importance. Indicate the function of the distribution system and their relative importance. Identify how quality of the distribution is to be determined.

What are the determinants of distribution quality?

What are the requirements for storing products?

Products often require special conditions and pose special hazards. Indicate what requirements are needed to store the products and under what conditions they need to be stored.

What are the conditions for storage?

How much and what types of products does the market need?

Supply is not merely the delivery of products, but the timing and conditions that must be met. This supply chain requirements are design to assure that the products get to the customer when needed and in the form desired. Indicate the supply needs for the various markets, timing of delivery and conditions.

What conditions does the market demand?

Where are the products made?

Products are often produced in several locations. Intermediate products are shipped between plant sites. Often packaging is done separately. Indicate where the products are made and where and when they are considered finished products for delivery to customers.

When and where does distribution have control of the product?

How are the products transported among the warehouses, distributors, agents, dealers, and customers?

Products are transferred from one level of the distribution chain to the others. Indicate the modes of transportation that are available and allowed. It should be noted that not all levels of the distribution chain may be used. In some cases product may be shipped directly from the plant site to the end user. The mode of transportation usually is dictated by the point of origin.

What are the condition and requirements for transportation?

Include both safety requirements as well as those necessary to assure product quality and prompt delivery. Indicate the specific products needing special conditions.

How are transportation costs determined?

Include issues regarding full and partial truck loads as well as distance calculations. Any special costs such as pick-up charges should be discussed.

What other conditions impose on the selection of transportation mode and schedule?

Include in these conditions efforts to afford efficiency by combining transportation with other company businesses and any desirable business relations. For example, distributors may have their own transportation system. It could be desirable to use it as a means of providing a improved distributor relationship.

How is the distribution channel

Indicate who sells what to whom. How do materials get to the ultimate user. If several

organized?

distribution channels are being used, describe each and indicate the fraction of each key product that goes through them.

How is value distributed along the distribution channel?

Product moves along the distribution channel because there is value in that movement. Indicate the source and level of value that is obtained by each organization to encourage the movement of product. For independent organization indicate the profits and costs associated with the transfer.

How much product is to be stored in warehouses before distribution?

Product stored in warehouses and by agents is owned by the firm. Inventory control is the responsibility of the business. Identify the finished product inventory that must be warehoused by type.

Identify the use of this inventory and the competitive advantage gained from keeping it in warehouses.

What are the requirements to store products at warehouses and by agents?

Include both safety requirements as well as those necessary to assure product quality and prompt delivery. Indicate the specific products needing special conditions.

How many warehouses and agents will be used?

At what locations will product be stored?

Which warehouses have been selected?

What is the distribution of inventories at the warehouses?

Not all warehouses and agents are of equal size or importance. Indicate the distribution of inventories by warehouses and agencies. These inventories are owned by the business and should be under the control of the business.

What will the inventory cost to store?

Indicate the costs associated with inventory storage. Describe the control procedures needed to store and maintain inventory.

How will inventory and shipments be controlled?

What is the function of distributors for this business?

A distributor may be any middleman between the business and the dealer or retailer who, in turn, sells the product to the user or customer. The distributor's major functions are to resell the product or make minor changes such as packaging or formulation. Unlike warehouses and agents, distributors take possession of the product. In addition to storing materials, distributors may be active in the marketing process and may sell additional products from other suppliers or proprietary products of their own.

How much of the product will pass through distributors?

What pricing and delivery arrangements have been made with distributors?

What additional fees will the business pay the distributors?

What rights and exclusive arrangements, if any, have been made?

How many distributors will be used?

What are the locations of the distributors?

What is the distribution of sales among the distributors?

How much material is by consignment; owned by the business?

What warranties and guarantees have been made for return of unsold product?

What is the function of the dealers and retailers for this business?

How much of the product will pass through dealers and retailers?

What pricing and delivery arrangements, if any, have been made with the dealer and retailers?

What additional fees will the business pay the dealers and retailers?

What rights and exclusive arrangements, if any, have been made?

How many dealers will be used?

What are the locations of the dealers?

What is the distribution of sales among

Distributors are usually organized into firms and corporations. Arrangements are usually on a corporate basis. Indicate what arrangements or contractual conditions exist with the distributor companies.

Indicate the number of distributor locations that will be used and their locations. Since single distributor companies may have several locations, indicate each.

Not all distributors and wholesalers are of equal size or importance. Indicate the distribution of sales by distributors.

Consignment product is owned by the business, but held by others. The business receives returns for the sale of the product or may be charged a holding fee for product not sold in a period of time. Alternatively, the product may be returned to the business at its request and at the business' expense. Alternatively the business may offer the option of returning unsold product. These are often unconditional warranties on saleable product. Indicate consignment and conditional warranties agreements with distributors.

Dealers, resellers and retailers are any middlemen who sell the product to the user or customer. Their major functions are to resell the product or make minor changes such as packaging or formulation. The alternative for the company is to sell the product directly to the customer.

Dealers are often organized into firms and corporations. Arrangements are usually on a corporate basis. Indicate what arrangements or contractual conditions exist with the dealer companies.

Indicate the number of distributor locations that will be used and their locations. Since single distributor companies may have several locations, indicate each.

Not all dealers and resellers are of equal size or importance. Indicate the distribution of sales by

the dealers and retailers?

dealers and retailers.

How much material is by consignment; owned by the business?

Consignment product is owned by the business, but held by others. The business receives returns for the sale of the product or may be charged a holding fee for product not sold in a period of time. Alternatively, the product may be returned to the business on its request and at the business' expense. Alternatively the business may offer the option of returning unsold product. These are often unconditional warranties on saleable product. Indicate consignment and conditional warranties agreements with dealers.

What warranties and guarantees have been made for return of unsold product?

What is the total quantity of product held in inventory along the distribution channel?

How much sales will be lost because of insufficient product at location?

How sensitive are sales to availability of product?

Sales can be lost due to insufficient product at the dealer or along the distribution channel. Indicate the sensitivity of sales to supply. Indicate the potential loss and the permanence of such losses.

How long a delay in delivery would be sufficient to lose sales?

What training programs are planned for the members of the distribution channel?

How much will they cost?

What is the competitive advantage of instituting these programs?

What communications systems will be establish along the distribution channel?

Who will support those systems?

How much will they cost?

What is the total cost of distribution?

INFORMATION PLAN

What products and services do you intend to sell?

This description should be as specific or as general as this 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. 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.

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. All are considered to be customers.

If the product will be purchased more than once, either through a distributor or through subsequent processing where the identity of the product is maintained, (i.e. a Dacron Shirt) all customers should be identified. 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.

How do we process orders?

The method of processing of orders can be critical for the success of the business. It determines the reliability and timeliness of product delivery process. Indicate how the orders are processed, from receipt to execution of the order.

How do we bill our customers?

The business of business is making money. Billing customers is the way its done. Describe the billing and invoicing process. Indicate the control system in place to assure that the quantity and terms are correct.

How do we assure that the billing is correct?

How do we pay bills?

Indicate what systems are available and in place for the payment of bills for all aspects of the business. Include manufacturing, marketing, sales, and out-pocket expenses.

How do we assure that the bills are paid on time?

Indicate what procedures exist to assure the bills are paid on time.

How do we assure that they are correct?

Indicate the control systems in place to assure that bills are not paid more than once and at the appropriate level. Identify how vendor contractual arrangements are verified against their bills.

How are checks handled?

Indicate what provisions have been made to deposit checks and transfer funds into the

How do we record payment?

business. Proper recording of checks and fund transfers are critical for controlling the finances of the business. A system should be in place to track who has paid, when they paid, and how much is still owed.

What documents are needed for shipping product?

Documentation is usually needed to ship product. These documents include standard bills of landing, packing slips, and legal shipping documents. Legal requirements may include: inspection documentation, safety information, and tax (duty) forms. Indicate what documentation is needed and how it will be obtained. Identify who is responsible to obtain this documentation.

How will we obtain them?**What tax exception documentation are needed?**

Tax exception and qualification may be critical for profitable operations. Identify what tax benefits are to be derived from this business and indicate the necessary documentation to obtain those benefits. Specify the policies and procedures that will be undertaken to maintain proper tax documentation. We assume procedures to handle standard income and property taxes exist for this business. Systems should be available to handle any extraordinary tax provisions which apply to this business.

How will they be obtained?

Specify systems to obtain and record documents verifying payment of import duties and export fees, if appropriate.

How do we assure that outlays are correct and justified?

Tight cost control can be critical for the success of a business. Indicate the provisions made to track outlays and direct expenses for this business. Identify who get the reports and the expected delay between incurred costs and issued reports.

How do we track direct expenses?**How do we track allocated expenses?**

Allocated expenses are charges imposed on the business by the Department or the Corporation. These are effectively taxes imposed from outside the organization. They are negotiated and therefore, must be reviewed and checked by the business management. Indicate how allocated expenses are itemized and reported. Identify the delay between incurred charges and the issued report.

How do we know what product is available for sale and where?

Describe the reporting system for inventory control. Indicate how we know how much and where each type of product is located. Describe the forecasting and product scheduling system with the reporting mechanism. Identify who gets the reports and the delay between the availability of data and the issuing of reports.

How do we know what product will be available and when?**How do we know how vulnerable we are to supply cut off?**

Describe the tracking system for feed stocks. Identify who gets the reports and the delay between the availability of data and the issuing of reports.

How do we know how much product could be produced?

How do we assure that the accounts for this business can be consolidated with those of the Department and the Corporation?

Indicate how the accounting systems for this business interact with those of the Department and the Corporation. Identify the ways that the accounts will be made to agree and who is responsible for the consolidation and reconciliation.

How do we determine what resources are needed for programs?

Describe the budgeting process. Indicate how forecasts are made, and required expenditures estimated. Identify who is responsible and the schedule of the budgeting process.

How do we determine that expenditures are in line with the budget?

How are the information systems procedures documented?

The information systems consist of all accounting, control, and monitoring systems used to conduct this business. Indicate how the procedures for the information systems are documented. Identify who is responsible for the maintenance of the documentation and where the documentation is kept available.

What procedures are being used to prevent unauthorized access to business information?

Describe the security procedures regarding limiting access and identify who is responsible for procedures. Identify responsibility for determining who should have access. Indicate if the specific business procedures contains security procedures and identify where the documented procedures are available.

What procedures are being used to prevent the loss of business information?

Describe the data and systems protection procedures including backup schedules. Identify who is responsible for procedures and its implementation. Indicate if the specific business procedures contains data and systems protection and identify where the documented procedures are available.

What items in this business need special control (i.e. cash, precious metals, controlled substances)?

How are they controlled?

Each business has its own critical elements, either information or materials. These elements should be protected. Indicate what are the unique critical elements in this business that need protection. Describe the protection procedures and how they are documented. Identify who is responsible for the protection.

What documentation is available?

How does the staff have access to the system control procedures?

How do we assure that the system control procedures are followed?

How are the business policies and practices documented?

Business practices consists of all procedures for the conduct of the business. Indicate how the practices are documented, who is responsible, and the documents can be accessed.

How does the staff have access to

them?

How do we assure that the business policies and practices are followed?

What review procedures has been developed to assure compliance with Departmental and Corporate guidelines?

Assessment of compliance with Departmental control guidelines is the responsibility of the Departmental Comptroller; for the Corporate guidelines, it is the internal auditing function. The responsibility for the conduct of the business and compliance with all aspects of the business must reside with the business management. Indicate what review procedures have been established to assure compliance. Indicate what arrangement has been made to obtain Departmental, Divisional, and Corporate input into the review procedures.

How do we know who is buying our products and services?

It is important for the business to know, not only, the companies who buy the product but their characteristics and individual identities. There are a variety of approaches to obtain information on our customers (i.e. warranty cards, surveys, etc.). Indicate how sales information is obtained and how it is to be reported.

Who gets the sales information reports and when?

Identify who is responsible for sales reporting and who gets the reports. Indicate the expected delay between the availability of basic data and the issuance of the report.

How do we know what the customers are doing?

Call reports are the basic technique to determine what is going on in both sales and technical service activities. Prompt and thorough reporting can be critical for effective management. Indicate the nature of the call reporting being done by the sales and field technical staff. Discuss field management reviewing procedures to verify sales information.

How do we know what our sales and customer technical staff are doing?

Who gets the sales information reports and when?

Identify who is responsible for sales call report summaries and who gets the reports. Indicate the expected delay between the sales calls and the issuance of the report.

How do we know what the industry is doing?

Indicate the standard sources of information and any industry tracking programs in place. Identify who is responsible for the industry information reports and tracking studies.

Who is responsible for collecting industry data?

Who gets the industry information reports and when?

Identify who gets the reports and for what they are used. Indicate the expected delay between the available data and the issuance of the report.

How do we know what the customer values?

Knowing customer values can be critical for product development and Quality programs. Assurance of effective business development and the maintenance of the current business require understanding our customers. Because of inherent biases and orientation, we can not rely solely on the sales force for reliable customer

How do we know how he makes decisions?

Who gets this information?

information. Indicate how the information is obtained.

How can will this information be used?

Identify who gets the reports and for what they are used.

How do we know what the customers think of us and the competition?

Customer perceptions of our product and competitors can be critical in estimating: (1) product potential; (2) business vulnerability to competition; and (3) pricing strategy. Because of inherent biases and orientation, we can not rely solely on the sales force for reliable customer information. Indicate how the information is obtained.

How can we use this information to position our products?

Who gets this information?

Identify who gets the reports and for what they are used. Indicate the expected delay between the available data and the issuance of the report.

How will this information be used?

How do we know what our customers expect from us and our product?

"Quality" is the meeting and exceeding of customers expectations. To assure business quality, the expectations of existing and potential customers must be determined. Those expectations change and must be tracked. Because of inherent biases and orientation, we can not rely solely on the sales force for reliable customer information. Indicate how the information is obtained.

How do we know what we can do to change those expectations?

Who gets this information?

Identify who gets the reports and for what they are used. Indicate the expected delay between the available data and the issuance of the report.

How will this information be used?

Who is responsible for marketing information?

Market and marketing research require special skills to assure quality data collection and analysis. Identify who in the organization is responsible to assure that the market and marketing information are valid and that the most value is obtained from that information.

What resources are available for obtaining information?

Indicate what resources and funds have been allocated for data collection and analysis.

How are new product and service ideas tested?

New business concepts have to be tested with customers. Describe the testing procedures for new product concepts. Indicate who are to be tested, what standards are used; and how success is determined. Identify who is responsible for new product testing.

How do we determine the customers' intent to buy the product?

Indicate how the size of the market is determined and the willingness of the customers to purchase the product. Describe the procedures used to determine acceptable price and terms.

How do we relate the intention with expected purchases?

How to we know that advertisements, displays, and sales aids will be

Testing promotional materials is critical for effective programs. Indicate how materials are tested before use. Identify who is responsible for

effective?

testing and for approval.

How do we know when they have been effective?

Determining the effectiveness of promotional programs is usually not simple. Their impact is often confounded by other activities concurrently underway. Indicate the methods for estimating program effectiveness and identify who is responsible for determining the effectiveness of programs.

How to we know that marketing, sales and promotional campaigns will be effective?

New marketing campaigns should be tested with customers. Describe the testing procedures for new campaigns. Indicate who are to be tested; what standards are used; and how success is determined. Identify who is responsible for testing.

How to we know when they have been effective?

Determining the effectiveness of promotional programs is usually not simple. Their impact is often confounded by other activities concurrently underway. Indicate the methods for estimating program effectiveness and identify who is responsible for determining the effectiveness of programs.

How do we introduce new products?

New product introduction can be complex. Roll out of new products can be done locally, regionally, nationally, or on a global basis. Indicate how new product variants will be introduced to the market.

How do we monitor the acceptance?

Monitoring sales and customer acceptance is a key problem for new product introduction. Inventory growth and promotional campaigns can confound estimates of actual sales. Indicate how sales of new products are to be monitored and how sales forecasts are obtained.

How do we forecast sales?

How do we obtain information on their capabilities?

Identify who is responsible for competitive intelligence. Indicate the sources of information and the reporting system to identify a changing market condition.

How do we obtain information on competitors' capabilities?

How do we know what our competition is doing?

It is critical to determine what the competition is doing, his capabilities, and also his intent. Competitive strategy should rely on the understanding of what the competitors are likely to do. Describe the continuing competitive intelligence program. Identify who is responsible.

How do we determine their intent?

How do we obtain competitive products?

Indicate the issues which must be addressed regarding competitive products. Particularly, note whether patent violations need to be monitored. Identify who receives competitive product testing results and who is responsible for prompt testing and reporting.

How do we test them?

How do we know what customers think

Laboratory tests are usually insufficient to assess competitive products. Customer reaction is usually critical for the evaluation. Customer

of the competitive products?

reaction should include both their impression of the product and their experience with it. Indicate the sources of information and identify the degree to which it is exclusive information.

What are the needs for an integrated information system?

The integrated information system is a computer based system designed to interconnect groups of data. Generally, business cost accounting systems need to be integrated. The Quality information system, including product testing and complaint information may need to be integrated. Indicate what information needs to be compiled across functions, the specific data needed and their source.

What specific data should be collected and compiled?

When must such a system be available?

What specific data must be centrally kept?

Centralization of data is critical for multiple users. Indicate the data that must be central stored and accessed by multiple users. Identify who must have access to the data in terms of function.

What type of reports must be routinely produced by the system?

Standard reports are generally compiled from routinely collected data. Indicate for each major report: (1) the purpose, (2) the structure, (3) who receives it, and (4) who is responsible for its generation.

How must the systems be connected?

Communications between computers and computer languages can be complicated and should be designed into the systems (not imposed upon them). Indicate which systems will need to be interconnected in order to exchange data and how much data will be transferred.

What data need to be merged?

What standard hardware and software are intended to assure compatibility?

The selection of standards for computers, languages, and system software is critical to assure compatibility and connectivity. Identify the packages and computer systems selected as standard for central data storage and the overall management information system.

What procedures and devices are being used to prevent unauthorized access to sensitive materials?

The security of company information is critically important. Indicate how sensitive material will be secured in the management information systems automations system and how compliance will be assured.

What procedures and devices are being used to prevent the loss of information?

What backup procedures are being used?

The value of company information is derived from having it available when needed. Indicate how company information held in the management information systems will be protected from loss. Identify the schedule for backing up internal disks and assuring that they are stored safely against damage and theft.

How and where are the backup files being stored?

What reports and files must be kept to

Critical systems are deemed "Audit Critical" if the

assure that the system can be audited?

information is important for the financial health of the firm. Accounting systems are usually considered Audit Critical. Facilities to enable auditing must be included. Indicate which systems should be audited and what reports, and files must be available.

What provision has been made to review the systems design with Departmental and Corporate auditing personnel?

Auditing often requires special provisions including assuring the existence of "audit trails". The auditing provisions should be reviewed with the Department's Comptrollers office and with the internal auditing function.

What information should be stored?

Describe the management information system by a flow diagram showing the major logic steps and the trail of data entering and leaving each step of the process.

How will it be stored?

Who will support and maintain the management information system?

Support and maintenance include all activities needed to keep the system running. Report generation may be the responsibility of users or the support staff depending on the needs of the organization. Indicate the role of the support and maintenance staff for the system. Identify who is responsible.

How much training does your staff need and want?

Indicate what training should be provided for the users and the support staff for the system. Indicate if new languages or equipment will be used in the system. Identify who will provide the training and on what basis. If an outside vendor is to be used, indicate which vendor and why.

Who will provide the training?

Who will develop the Management Information System?

Identify who will develop the management information system. This should include the design, the coding, testing, documentation and initial training. The identity should be a person as well as an organization. The development of systems tends to be a personal endeavor. It is often important to maintain contact with the individual who develops the system. Indicate how long the developer will be available for changes and upgrades.

How much will it cost?

Indicate total "life time costs" for the system. These include: (1) development, (2) documentation, (3) maintenance, (4) training, and (5) upgrading, and (6) use.

Who is responsible for the development of the Management Information System?

Management information systems typically involve several functions in the business and organizations. Indicate who or what organization is responsible for development of the various Management Information Systems. Identify who is responsible for approving specifications and system design.

Who is responsible for running of the Management Information System?

Responsibility for the design may be separated from that of running the system. It is important that the two functions are coordinated in order to assure final satisfaction. Indicate who will be responsible for running the systems.

What systems are needed to improve the planning process?

Decision Support Systems, DSS, consists of packages and programs that aid the decision making process. Usually these systems are computer based. Other decision support tools may be included. In the planning functions, DSS include forecasting and business modeling tools.

How would the system improve the planning operations?

Indicate the Decision Support System needs in planning. Do not include general purpose computer packages such as *LOTUS 1-2-3* unless special spreadsheets or programs must be written by non-users or where extensive effort is required.

What systems are needed to improve the operations?

In operations, DSS include forecasting, statistical analysis, report generation, and control.

How would these systems improve the operations?

Indicate the Decision Support System needs in operations. Do not include general purpose computer packages such as spreadsheets, database managers, and statistical packages, unless special programs must be developed by non-users and where extensive effort is required.

What training is needed and wanted?

For the Decision Support Systems to be useful, people must use them. Indicate how much training will be needed and wanted; and how it will be done. Identify who will do the training.

Who will do the training?

How will these systems be supported?

All programs and packages need to be upgraded and changed. Indicate the degree to which these systems will need support and how that support will be obtained.

Who will do the support?

Who will build these systems?

What resources are available?

Who is responsible to authorize the development of these systems?

Who is responsible to set specifications and supervise development?

What are the goals, mission, and objectives for automating the office functions for this business?

Office automation is closely associated with the use of personal computers in the office environment. Indicate the overall mission and objectives for office automation. Do not consider home office facilities. Indicate specific economic and performance objectives for the effort.

How will information be communicated to other offices, the field staff, plants, customers, and suppliers?

One of the most powerful values of office automation is provided by communications. Data and working documents can be shared among offices throughout the country. Indicate the way that the office systems are to be interconnected. Identify if a standard is being used for the

What standards of communications are

been adopted?

communications, (for example, *PROFS*, *All-In-One*, or other identified systems).

Why?

What procedures and devices are being used to prevent unauthorized access to sensitive materials?

The security of company information is critically important. Indicate how sensitive material will be secured in the office automations system and how compliance will be assured.

What procedures and devices are being used to prevent the loss of information?

What backup procedures have being used?

The value of company information is derived from having it available when needed. Indicate how company information held in the office automation system will be protected from loss. Identify the schedule for backing up internal disks and assuring that they are stored safely against damage and theft.

How and where are the backup files being stored?

How much training does your staff need and want?

Indicate how much training will be needed and wanted to use the office automation systems; and how training will be accomplished. Identify who will do the training.

Who will provide the training?

Who will support the systems?

Office automation support consists of "on-line" help and maintenance of the system. All programs and packages need to be upgraded and changed and therefore maintained. "Hot-line" assistance consists of personnel readily available to answer questions. Indicate the degree that these systems will need support and who will provide that support.

What computer systems and other hardware have been selected?

In order that the office systems are compatible standards should be established. Indicate what type of personal or work station system or "platform" will be standard. Identify the types of printers, plotters, and other peripherals that will be acceptable.

Why?

What software programs and packages have been selected?

Not all computer packages, even on the same computer, are compatible and allow interchange of data and documents. Furthermore, the way the package works and looks, may be very different. In order to assure compatibility and support, standards are often established in software. Indicate the standards that will be used for office automation.

Why?

What resources are available to acquire and support the systems?

Who is responsible for office automation for this business?

What are the goals, mission, and objectives for sales and distributed

Sales and distributed support systems are designed to provide assistance to the sales force, manufacturing and distribution. Communications among these functions are critical to assure Total

computing support for this business?	Quality Management. Home office systems are included in these systems, as well as computer based promotional systems. Indicate the long term vision for these systems and the short term goals for immediate implementation.
What are the specific needs for distributed support?	Indicate what specific needs the systems provide and the benefits to the business. Impute a financial value if possible.
What are the benefits to the business of such an integrated system?	
How will information be communicated to offices, the other field staff, plants, customers, and suppliers?	
What standards of communications have been adopted?	Sales and distribution support may rely heavily on communications. Data and working documents can be shared among facilities and the sales personnel offices at their homes or in the field. Indicate the way that the sales and distribution support systems are to be interconnected. Identify if a standard is being used for the communications.
Why?	
What are the needs for computer-aided sales support?	Computerized sales aids are programs to assist in the marketing of products and services directly to the customer or dealer. They can consist of video promotional displays, "expert system" problem user problem evaluation, and "question and answer" systems.
What systems should be developed and when?	Indicate what systems should be developed, the objective and specifications of each; and who will use them.
What procedures and devices are being used to prevent unauthorized access to sensitive materials?	The security of company information is critically important. Distributed processing makes limiting access difficult but even more important. Indicate how sensitive material will be secured in the sales and distribution support systems and how compliance will be assured.
What procedures and devices are being used to prevent the loss of information?	The value of company information is derived from having it available when needed. Because of the disperse nature of sales and distribution systems, protection is difficult to maintain. Indicate the procedures that will be followed to protect customer computing information and the methods of assuring that those procedures are being followed.
What backup procedures have being used?	
How and where are the backup files being stored?	
How much training does your staff need and want?	Training of sales and other dispersed personnel is often difficult to coordinate. Indicate how much training will be needed and wanted to use the sales and distributed systems; and how training will be accomplished. Identify who will
Who will provide the training?	

Who will support the systems?

do the training and how quality will be assured.

Sales and distribution systems support consists of "on-line" help and maintenance of the system. All programs and packages need to be upgraded and changed and therefore maintained. "Hot-line" assistance consists of personnel readily available to answer questions. Indicate the degree that these systems will need support and who will provide that support.

What computer systems and other hardware have been selected?

In order that the sales and distributed support systems are compatible standards should be established. Indicate what type of computer or work station system or "platform" will be standard. Identify the types of printers, plotters and other peripherals that will be acceptable.

Why?**What software programs and packages have been selected?**

Not all computer packages, even on the same computer, are compatible and allow interchange of data and documents. The way the package works and looks, may be very different. In order to assure compatibility and support, standards are often established in software. Indicate the standards that will be used for sales and distributed support systems.

Why?**What resources are available to acquire and support the systems?****Who is responsible for distributed support for this business?****What are the benefits to the business will be realized by promoting computer and communications support with the customers?**

Customer computing consists of facilities to assist the customer in utilizing computer systems. Generally, this focuses on communications, business consulting, and technical assistance. Indicate what technologies are being considered and the benefits that will be realized by promoting it. Include Quality, partnerships and promotional considerations.

What are the specific needs for distributed support?

Indicate the long term vision for these systems and the short term goals for immediate implementation. Indicate what specific needs the systems provide and the benefits to the business. Impute a financial value if possible.

What is the goals, mission, and objectives for customer computing for this business?**What systems need to be developed for the customers?**

While major components of the customer computing systems can be installed as purchased "off-the-shelf" some elements may require custom design and development. Describe the specific systems that should be developed. Identify who will develop them and when they are to be available.

Who will develop the systems and when?**How will information be communicated to and from the firm?**

What standards of communications are A customer computing system can relay heavily

been adopted?

Why?

on communications to maintain control. Data and working documents can be shared among facilities and the sales personnel offices at their homes or in the field. Indicate the way that the sales and distribution support systems are to be interconnected. Identify if a standard is being used for the communications (for example, *PROFS*, *All-In-One*, or other identified systems).

What procedures and devices are being used to prevent unauthorized access to sensitive materials?

The security of company information is critically important. Distributed processing makes limiting access difficult, but even more important. Indicate how sensitive material will be secured in the customer computing and distribution support systems and how compliance will be assured.

What procedures and devices are being used to prevent the loss of information?

What backup procedures are being used?

The value of company information is derived from having it available when needed. Because of the dispersed nature of customer computing protection is difficult to maintain. Indicate the procedures that will be followed to protect customer computing information and the methods of assuring that those procedures are being followed.

How and where are the backup files being stored?

How much training does your staff need and want?

Training for customer computing is often difficult to coordinate. Indicate how much training will be needed and wanted to use the customer computing systems; and how training will be accomplished. Identify who will do the training and how quality will be assured.

Who will provide the training?

Who will support the systems?

Customer computing systems support consists of "on-line" help and maintenance of the system. All programs and packages need to be upgraded and changed and therefore maintained. "Hot-line" assistance consists of personnel readily available to answer questions. Indicate the degree that these systems will require support and who will provide that support.

What computer systems and other hardware have been selected?

Why?

In order that the customer computing are compatible, standards should be established. Indicate what type of computer or work station system or "platform" will be standard. Identify the types of printers, plotters and other peripherals that will be acceptable.

What software programs and packages have been selected?

Why?

Not all computer packages, even on the same computer, are compatible and allow interchange of data and documents. Furthermore, the way the package works and looks, may be very different. In order to assure compatibility and support, standards are often established in software. Indicate the standards that will be used for sales and distributed support systems.

What resources are available to acquire and support the systems?

Who is responsible for customer computing and communications?

What are the needs, advantages and problems for this business in adopting program and language standards?

What standards, if any, have been selected?

Why?

What are the expected needs for custom software documentation?

What standards have been adopted to assure the quality of the documentation?

How is the development of custom computer programs justified?

How are suppliers of software, programmers, and hardware selected?

Are their preferred suppliers?

Who is responsible for authorizing system development?

Who is responsible for approving specifications and the contract arrangement?

Who is responsible for supervising its development and assuring compliance with specifications?

Describe the standards that have been set for systems and program development. Indicate who set the standards and the conditions by which they must be adhered to or bypassed. Indicate the scope of the standards and the specific reasons for their adoption.

Documentation includes: annotated technical documentation of the program (its source code), data structures (including data dictionaries and flow diagrams), manuals, user guides, and training materials. Indicate what documentation is required for all custom programs and systems developed.

Indicate the process of justifying the development of major computer programs and systems. Include on those programs and systems for which special or outside personnel will be utilized or that require substantial funds for design, development, implementation, and documentation.

Indicate the process and the criteria used for selecting computer service vendors. Identify any preferred suppliers and why they are preferred.