INTRODUCTION

**Development Phase**

Pre-Production Prototype

**Definition**: The process of preparing the product for introduction into the marketplace.

**Objective**: The objective of the pre-production prototype is to develop the manufacturing processes and techniques required to produce the product.

**Product:** The product of this activity is a pre-production prototype or process.

**Technical Activities**: During the pre-production prototype step the following activities must be completed:

* Develop a pre-production prototype
* Determine pre-production processes
* Select final product materials and components
* Select manufacturing procedures, equipment, and tools
* Assess specification conformance
* Test product performance, reliability, and quality
* Design a field support system
* Calculate full production costs

**Technical Information:** The pre-production prototype step usually will result in knowledge about the manufacture-ability of the product, the manufacturing processes, maintainability and reliability, material and component lists, plans for field support, installation and production costs, safety and environmental factors, time schedules, and regulatory requirements.

**Assessment:**

Do you have a production prototype of the product?

Have you conducted pilot production?

Have you selected the manufacturing process?

Have you selected the manufacturing equipment?

Have you conducted full-scale production?

Do you have a commercial-level design?

Do you have quality control procedures?

Have you produced sufficient quantities for market?

**Development Phase**

Market Validation

**Definition:** The process of introducing the product to the market, assessing market approaches, and obtaining customer feedback.

**Objective:** The objective of the market validation step is to test the receptivity of the market to the product and to compare expectations of the business plan with the realities of the marketplace.

**Product:** The product of this step is a quantitative analysis of limited sales performance and a qualitative analysis of customer response.

**Marketing Activities:** The marketing activities common to this step are those necessary to obtain a quantitative and qualitative market response to the product.

During the strategic marketing plan step, the following activities must be completed:

* Conduct limited product sales
* Quantify the volume, rate, and demographics of sales
* Design and implement a customer survey
* Analyze customer feedback (price, design, function, packaging, delivery)
* Transmit design modifications to technicians

**Marketing Information:** Completion of the marketing validation step usually will result in a verification of the validity of the enterprise's marketing approach for the product and/or identification of recommended modifications.

**Assessment:**

Have you conducted limited product sales?

Have you quantified the volume, rate, and demographics of sales?

Have you designed and implemented a customer survey?

Have you analyzed customer feedback (price, design, function, packaging, delivery)?

Have you analyzed your competitor's response?

Have you incorporated marketing modifications into the market plan?

Have you transmitted design modifications to technicians?

**Development Phase**

Business Startup

**Definition:** The business start-up step of business development is that period during which business functions (management, production, financing, legal, marketing, and human relations) are initiated by key personnel.

**Objective:** The objective of the business start-up step is to introduce the enterprise to the market within the parameters identified in the business plan.

**Product:** The product of this step is an enterprise capable of producing a product that meets technical and customer specifications, satisfies customer expectations, and demonstrates a potential profit.

**Business Activities:** The business activities common to this step are those necessary to introduce the product to the market, establish a foundation for sound business practices, and implement a growth strategy.

During the business start-up step, the following activities must be completed:

* Establish hiring criteria
* Hire and train core personnel
* Execute limited contracts
* Arrange for next stage financing
* Regularly convene board of director meetings
* Develop business policy and procedure manuals
* Establish control mechanisms for cash expenditures that correspond with the business plan
* Establish a dynamic process for strategic and tactical planning for the enterprise

**Business Information**: Completion of the business start-up step usually will result in knowledge gained from the establishment of business functions, introduction to the market, assessment of market response, and confirmation of profitability, identification of required technical, marketing and business modifications and refinements.

**Assessment**:

Have you initiated business activities?

Have you established hiring criteria?

Have you hired and trained core personnel?

Have you executed contracts?

Have you arranged for the next stage of financing?

Do you convene regular board of director meetings?

Have you developed a business policy and procedure manual?

Have you established control mechanisms for cash expenditures that correspond with the business plan?

Have you established a dynamic process for strategic and tactical planning for the enterprise?