



# MASTERMIND CONSULTING NETWORK

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## Risky Business

(The Paradox of Product & Service Development)

### THE RISK

When the market for current products and services is no longer viable, development of new offerings is the only realistic answer. Sooner or later this situation occurs with all products and services because they eventually become “*STALE*” and loose traction in the market place. For this reason, every business needs continuous improvement and new products to offset the natural aging process. A paradox; however is that the development of new products and services while vital is also a risky endeavor for several reasons:

1. High cost and the danger of cost overruns.
2. Timing is critical; long lead times and project delays can kill any new product launch.
3. Even with good market research; strong acceptance in the market place is never guaranteed.
4. The long lead times of most new product programs means that the market environment at launch may be radically different from what was anticipated.

### THE PROCESS

At MCN, we have developed the Advanced Product & Service Development Process to assist clients in meeting market demand for fresh, exciting new products while minimizing the risk of blown schedules or worse runaway costs. This process includes the following eight steps:

1. **Market Assessment** – Is there a large market that needs, wants and can afford the proposed product? Also in the face of competition is it likely

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*Driving Business to Peak Performance!*

that we can take sufficient share to generate the revenues needed to justify our development costs?

2. **Specifications, target pricing and project plan** – In this phase we establish the characteristics that describe our proposed product or service, its intended selling price, and a plan for its development and launch. The project plan lists the steps required to develop the product or service, their sequence and timing along with a description of the resources required including manpower and materials. The resulting timing and cost budgets enable us to control the project throughout its lifetime.
3. **Product or Service design** – In this step we create a written description of the product or service. For a manufactured item, this involves engineering drawings, bills of material and supporting documentation including testing and inspection standards. For a service, lesser documentation is required, but would include an outline, and a written description defining inputs, actions and outputs. A tracking plan then describes milestones and outcomes which allows results to be monitored and evaluated as the project progresses.
4. **Prototype Production and Testing** – In this phase a small number of samples is produced using processes and tooling that approximates the production process. The goal is to learn what exactly is required and to produce samples for evaluation and testing. The results of this phase are used to finalize or revise the design. Any extensive redesign at this stage will require a repeat of this step and will probably result in a revision to the timeline and budget.
5. **Development & Refinement** – Once the prototype step has been successfully completed, more samples are produced and subjected to longer term testing often including field evaluations. The intent here is to refine the product or service to meet all real world requirements. It is necessary that this be accomplished prior to full scale production in order to avoid costly recalls and / or production process revisions. However, if significant issues emerge at this stage, redesign may be required causing repeats of steps 3,4, and 5. When this would cause a significant loss of projected ROI, the project may have to be aborted.
6. **Production Set up, Trial Run & Sample Evaluation** – For high volume manufactured items, this is where major investment begins and for that reason it is a critical go / no-go decision point. For lower volume or

service items, the decision to go to production may have less financial impact, but can still be a significant commitment of resources. Therefore the consequence of having to abort after this phase can be a very severe blow to any company, because at that point the investments in facilities, tooling, and personnel will have already been committed.

A key output of this step is an initial run of the production process to produce pre-production samples for evaluation of the product and process. A critical objective is to demonstrate that the process can achieve its cycle time and cost target. For lower volumes or services, this phase is also critical in order to prove that the intended operational conditions are viable.

7. **Marketing & Production Launch** – At this point the rubber really meets the road and good coordination is necessary. Because these activities occur simultaneously they must be balanced. Initial production ramps up output volume and ends when the planned production rate is reached and sustained. If volume ramps up faster than demand however, inventories pile up and production will have to be cut back with unfavorable consequences. On the other hand if market demand out runs production; shortages occur and sales will be lost as customers refuse to wait for delivery.

A consequence of production shortfalls is that they are addressed by hiring temporary workers or utilizing heavy overtime. Either of these measures can erode both quality and profitability. For lower volume or service items, these considerations though less dramatic, are still valid.

8. **On-Going product and service refinements** – Once a new product or service has been launched, the tendency is to say “Great, now we can relax”; but nothing is further from the truth. At this point, it is important to initiate and maintain a continuous improvement activity for several reason:
  - We are now accumulating real world experience which provides an opportunity to refine and improve the product or service so that it will better meet market requirements.
  - Once launched a new product or service will create a reaction among competitors in the market place. Continuous

improvement is the way to stay one step ahead by meeting or exceeding customer expectations in the changing environment.

- Continuous improvement also extends the lifetime of products or services and minimizes the need for frequent replacement. The benefit of this is to significantly reduce the costs and risks of developing new products and services over time.

## **THE NEED**

When products or services become obsolete, revenues decline and they must be freshened or replaced to reignite growth and prosperity. However, sometimes radical market shifts driven by technology, fashion or economic factors occur suddenly making existing products and services obsolete prematurely. When this occurs, new products and services are required quickly if the business is to survive and prosper.

In this case it becomes critical to establish what should be developed. There are several developmental options which should all be carefully evaluated before beginning a new development process.

1. **A new version** of the previous product or service would appeal to the same market segments and could with additional features appeal to some additional segments, thereby expanding the total market. Such a product or service would utilize existing facilities and expertise and would involve moderate cost and time to develop and launch.
2. **An entirely new** product or service aimed at traditional market segments and remaining within the core competencies of the business. Such a product or service might require new facilities, equipment and personnel to develop and launch. This approach would involve more development time and cost, but the potential rewards could also be greater.
3. **A new product or service for new markets** would be required if we determine that adequate opportunities no longer exist in traditional markets requiring a move into a new arena. In this case, it is likely that we would be moving outside of our core competencies and while the rewards may be greater, so will be the costs and risks associated with the project.

## **THE SOLUTION**

In each of the above cases, a well defined and executed development process can reduce the risks and improve the results. However, as the need moves up the complexity / risk spectrum, the need for such a process increases.

The MCN Advanced Product and Service Development process helps businesses manage these projects to minimize risks, reduce costs and improve results by:

- Providing a checklist of coordinated steps to assure that all necessary actions are adequately addressed.
- Creating a sequenced timeline and the related budgets for tracking and control.
- Identifying key decision points where go / no-go decisions must be made on whether to proceed or abort the project.
- Quantifying and implementing the necessary coordination of marketing and production during the production ramp up phase.
- Providing feedback to enable continuous improvement once the product or service has been launched. This is essential to maintaining the product longer term as market conditions evolve.

## **THE RESULT**

Businesses of all sizes and types can dramatically improve their results by offering fresh, in demand products and services in their market place. In order to do this, they must rapidly and effectively respond to changes in their environment.

This outcome requires that businesses embrace continuous improvement of their products and services but that alone is not enough. Businesses also need to introduce new products and services on a regular basis to ensure that offerings remain up to date and competitive.

Beyond these routine activities, truly proactive businesses will engage in an on-going search for the next big thing! This is the new product or service that will be innovative and disruptive; the opportunity to introduce a block buster product into the market place. Due to the high risk associated with such projects, the need for a strong development process is critical in this arena.