



Critical Assumption Planning^(SM) and Stage-GateTM Process

Most enterprises have a product or program manager, a team of individuals representing various critical work functions and some process in place for developing and delivering new products or programs. We collectively call this critical marketing function - Product Management. In general Product Management processes date back to the late 1980s and are still based on some form of a "stage-gate" approach, with periodic go/no-go status reviews at key decision points in the process.

Even after a series of modifications to their Product Management process most companies still remain extremely dissatisfied with how well the process actually works in practice. The majority of these enterprises find formal Product Management processes to be unresponsive to changing market conditions, too difficult to follow, too slow, too resource consumptive or some combination of the above. One of two results occur:

- Product Paralysis: it takes years instead of months to deliver and launch a new product or a program
- Dead on Arrival Launch: new products are launched pre-maturely and perform poorly in the market or fail outright

Background

Critical Assumption PlanningSM (CAP) is a risk management process that adapts the venture capital milestone concept as a five-step process. Steps typically include:

- defining a qualitative snapshot of the concept including a financial projection,
- identifying assumptions associated with the concept,
- determining the critical assumptions (financial show-stoppers),
- developing cost effective test programs to test critical assumptions and
- running the tests and making a go/no-go decision to continue development

CAP was first used by David Dunham and Ben Sykes in the early 90's as an accelerator for new product development and delivery efforts.

Stage-Gate refers to a formal process for product development where discrete work activities are separated by management decision gates. Activity stages typically include

- idea screening,
- business case creation,
- development,
- prototyping/testing and
- launch.

Cross-functional teams must successfully complete each activity prior to obtain management approval to proceed to the next stage. Stage-Gate systems were first used at NASA and then popularized by Dr. Robert G. Cooper over the last 15 years. Today more than half of product developers use some type of Stage-Gate process.



Stage-Gate Process Shortfalls

The shortfalls with the Stage-Gate process have to do with its sequential structure and the bureaucratic behaviours that often creep into the system.

There are five key problems inherent in the Stage-Gate process:

- It is difficult if not impossible to define one sequence of activities for all new products.
- The process tends to foster a step-by-step mentality that may discourage identification and completion of critical activities earlier in the process.
- A substantial portion of the resources available to the enterprise are required early in the development process (business case stage) prior to fully determining market viability
- The process does not get senior management buy-in early enough in the development cycle
- It is not the fastest way to develop products

How Can We Overcome These Shortfalls?

By utilizing CAP we are able to

- Accelerate the pace of development and launch,
- Find and resolve show stopping issues early in the process,
- Establish a common language and governance process that involves senior management in the decision making process much earlier
- Support a larger number of concurrent product concept assessments
- Increase the number of products that launch successfully (as defined by bottom line revenue)
- Maximize the ROI

At CCG we recommend an approach in which a small number of decision gates are clearly defined and CAP is used to manage activities in each stage. Decision gates should coincide with time points in the project where a significant increase in investment is required early-on to confirm the strategic alignment of new projects. During each activity stage one or more iterations of CAP are completed.

The resulting system provides a formal entrepreneurial process. Development team members understand what is expected of them and they are encouraged to identify critical issues and mitigate them quickly and at least cost. Decision points are clearly defined and identifying and mitigating critical assumptions becomes the basis for decisions.

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