
New product development

prepared for the NWT Outdoor
Adventure Workshop

November 23, 2010

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New product development process (Stage-Gate): tested, tried and true

- Robert G. Cooper – new product development guru (1980s). Developed a process called Stage-Gate
- Organizations that use the *Stage-Gate* process include: 3M, Kodak, Hewlett-Packard, Corning, Guinness, Lego, Black & Decker, Procter & Gamble
- Nearly 60% of firms use some form of *Stage-Gate* process for new product development; reaches 68% among the best performers (Product Development Management Association)

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Why build new product?

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Why new product development and innovation are worth the risk

- Sales: New products account for 33% of company sales on average
- Return on investment: The average ROI for successful new products is 96.9%
- Quick payback: The average payback period for successful new products is 2.49 years.
- Market share: The average market share in the defined target market is 47.3%

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What is new product?

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New product types

- New-to-the-world products
 - First of their kind and create an entirely new market
 - 10% of all new products
 - E.g., zip lining
- New product lines
 - Not new to the market, but new to the company
 - 20% of all products
 - E.g., copy cats

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New product categories, continued

- Additions to existing product lines
 - New items to the company, but fit in with an existing product line
 - May be fairly new to the marketplace
 - 26% of all new product launches
 - E.g., offering trips to a new location
- Improvements and revisions to existing products
 - Not very new in the marketplace
 - Replace existing products in a company's product line, offering improved performance or greater perceived value
 - Often respond to changing customer requirements or a competitive threat
 - 26% of all new products
 - E.g., heated seating while watching northern lights

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New product categories, continued

- Repositioning
 - Retargeting of an existing product to a new market segment or for a different application
 - E.g., Aspirin shifted its application from headache and fever relief towards prevention of blood clots
 - 7% of all new products
 - E.g., marketing excursions to target women
- Cost reductions
 - New products designed to replace existing products in a line, with similar benefits and performance at a lower cost
 - 11% of all new product launches
 - E.g., reduce trip length to an afternoon

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New product development: 15 critical success factors (and how to use them!)

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15 critical success factors: an overview

1. Ensure product superiority
2. Serve your customer: a market orientation
3. Look to the world: an international orientation
4. Don't rush (or skip!) predevelopment activities
5. Define your product
6. Develop a marketing plan
7. Organizational structure, design and climate
8. Top management support
9. Leverage core competencies
10. Seek attractive markets
11. Build in tough go/kill decision points
12. Quality execution
13. Dedicate sufficient resources
14. Do not sacrifice quality for speed
15. Follow an accepted NPD process

CSF #1 – ensure product superiority

- Superiority is defined from your *customer's* standpoint
- Product superiority can be:
 - Design
 - Features
 - Functionality
 - Attributes
 - Specifications
 - Positioning
- Attributes of a superior product:
 - Unique features for the customer
 - Meets customer needs better than competitors' products
 - High relative product quality
 - Solves customers' problems with competitive products
 - Reduces customers' costs
 - Is innovative or novel

Ensuring product superiority, continued ...

The Plan:

- Determine customer needs at the outset
 - Unmet and unarticulated needs
 - Wants, needs, problems, preferences, likes, dislikes
- Perform a competitive product analysis
 - Strengths and weaknesses of competitors' products from customers' perspectives
 - Anticipate competitors' future product offering
- Test, test, test
 - Test multiple times
 - Test and validate assumptions
 - Back and forth process with customers

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CSF #2 – serve your customer: a market orientation

- New product development process must be *driven by the customer*
- Listen to the customer's voice throughout the entire NPD process – beginning before product design!

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A market orientation, continued ...

The Plan:

- In-depth one-on-one personal interviews
- Customer site visits
- “Fly-on-the-wall” research
- Camping out with the customer
- Visitor focus groups
- Large-scale, quantitative market research

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CSF #3 – Look to the world: an international orientation

- Design for the world and market to the world
- Products targeted at the world are top performers
- Domestic focus is short-sighted
 - Your domestic market will become someone else's international market

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An international orientation, continued ...

The Plan:

- Solicit new product ideas from international visitors
- International visitor contact and input throughout the NPD process

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CSF #4 – Don't rush (or skip!) predevelopment activities

- Do your homework!
 - Initial screening, preliminary market studies, market research, business analysis
- Better project definition (the result of sound homework) speeds up the NPD process
- Upfront homework allows you to better anticipate changes
 - Changes occur earlier in the process when they are less costly

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Predevelopment activities, continued ...

The Plan:

- Determine the answers to these questions:
 - Will the product sell at sufficient volumes and margins to justify investment?
 - Who is the target customer?
 - How should the product be positioned?
 - What features, attributes and performance characteristics are required to make this a superior product?
 - Can the product be developed at the right cost?
 - Do we need a partner? Who and with what capabilities?

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CSF #5 – Define your product

- Failure to define the product often results in product failure and major development delays
- Early definition draws focus to and refines predevelopment activities
- A definition provides clear objectives for the development phase

Define your product, continued ...

The Plan:

- Develop a product definition that includes:
 - Project scope (how much time, effort and investment will this product require?)
 - Target market definition
 - Product benefits
 - Positioning strategy (how will I market my product?)
 - Product concept (what am I offering to my customers?)
 - Product features (physical or conceptual elements – e.g., a guided, two-week camping trip)
 - Product attributes (qualities, functions or descriptors – e.g., a chance to get away)
 - Performance requirements (essential features – e.g., a fun and safe experience, good value for money)

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CSF #6 – Develop a marketing plan

- Marketing planning must be included from the beginning of the NPD process
- Marketing plan development is *as central* to the NPD process as the development itself
- A marketing plan is only as good as the market intelligence it is based on

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Develop a marketing plan, continued ...

The Plan:

- Develop marketing objectives, strategy and programs based on quality data
- Address the four Ps:
 - Price: (e.g., how much will your customers pay for this product?)
 - Product: (e.g., what is your product definition?)
 - Promotion: (e.g., how do your customers find out about your product?)
 - Place (e.g., through what distribution channels do your customers buy?)

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CSF #7 – Organizational structure, design and climate

- Product innovation should involve individuals from different positions in the organization (may include customer feedback)
 - These individuals will have differing opinions and perspectives that can only add valuable viewpoints to product development
- A team approach – two heads are better than one!
 - Every team must have a designated leader
 - Team size should be kept to 8 or fewer members

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Design and climate, continued ...

The Plan:

- Involve your staff in the NPD process
- Encourage and reward creativity and innovation

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CSF #8 – Top management support

- Top management support – a necessary ingredient for innovation
- Top management assist in the NPD process by:
 - Mustering the resources
 - Cutting through the red tape

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Top management support, continued ...

The Plan:

- Develop a vision and a strategy for product innovation
- Make available the necessary resources
- Commit to a disciplined process to drive products to market
- Empower staff and team members

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CSF #9 – Leverage what you do best (core competencies)

- Begin and proceed from a position of strength
- Leverage in-house strengths, resources and capabilities
 - Resources - available at marginal cost (less expensive and less risky)
 - Knowledge - operate within what you know (your field of expertise)
 - Experience - the more you do something, the better you become at it

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Core competencies, continued ...

The Plan:

- Review and assess internal sources
- Develop new products that complement or build on existing product offerings

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CSF #10 – Seek attractive markets

- Market attractiveness: an important strategic variable
- Attractive market characteristics
 - Large and growing markets
 - Strong customer need
 - Where the purchase is an important one for the customer
- Unattractive market characteristics
 - Intense competition
 - Competition based on price, high quality, strong competitive products
 - Competitors with strong sales force, channel system and support service

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Seek attractive markets, continued ...

The Plan:

- Select markets based on research and quality data
- Evaluate market characteristics (attractive and unattractive characteristics)

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CSF #11 – Build in tough go/kill decision points

- Evaluate the NPD every step of the way using set criteria
 - E.g., potential market size and accessibility, financial analysis (risk and investment amount vs. potential return), fit with current offerings, capacity and corporate culture
- Prioritize NPD projects (ensure sufficient resources are available)
- Identify a decision maker
- Build decision points in the NPD process with go/kill criteria

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Build in tough go/kill decision points, continued ...

The Plan:

- Develop a mechanism or system for ranking, rating, prioritizing and killing projects
- Use screening or prioritization criteria; characteristics to include
 - Strategic alignment and importance
 - *Is this project an important step toward growing my business or remaining competitive?*
 - Product superiority
 - *Will this project be competitive in the market?*
 - Market attractiveness
 - *Is the market large enough for me to make money?*
 - Leverage
 - *Do I have access to the necessary funds to complete this project?*
 - Technical feasibility
 - *Will I be able to complete this project with the resources I have in-house or easily accessible?*
 - Return vs. risk
 - *How much do I need to invest? How large is the risk?*

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CSF #12 – Quality execution

- NPD is a process – treat it like one!
- Design and implement a systematic product innovation process that builds in quality assurance approaches
- Introduce checkpoints or “gates” into the approach that focus on quality of execution
 - Emphasize doing the right projects and doing projects right

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Quality execution, continued ...

The Plan:

- Ensure quality gates are included in each stage of the process:
 - Undertake preliminary market and technical assessments early on
 - Carry out detailed market study / market research before design
 - Perform detailed business and financial analysis
 - Perform market testing and validation
 - Execute the market launch in a successful fashion

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CSF #13 – Dedicate sufficient resources

- Projects often suffer from lack of time and money commitment
- Product innovation is an investment, not a cost that must be reduced

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Dedicate sufficient resources, continued ...

The Plan:

- Analyze your resource capacity
- Don't skimp on the critical activities
 - Preliminary market assessment
 - Marketing research
 - Trial sell
 - Market launch

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CSF #14 – Do not sacrifice quality for speed

- Pitfalls of accelerated product development
 - Shortcutting key activities (e.g., predevelopment activities, customer testing) often lead to product failure
 - Low-hanging fruit – may be quicker in the short run, but may cost you in the long run
 - Damaged morale – constantly missing deadlines

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Do not sacrifice quality for speed, continued ...

The Plan:

- Do it right the first time
- Do your homework
- Define your product
- Parallel processing – undertaking activities concurrently, not sequentially
- Prioritize and focus

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CSF #15 – Follow an accepted NPD process

- A conceptual and operational model for moving new product projects from idea to launch and beyond
- A blueprint (guideline) for managing the NPD process
- Improving the efficiency and effectiveness of the NPD process

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Follow an accepted NPD process, continued ...

The Plan:

- Research, evaluate and select the accepted NPD process model that works best for you and your business
- Stage-Gate process (see author Robert Cooper)

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