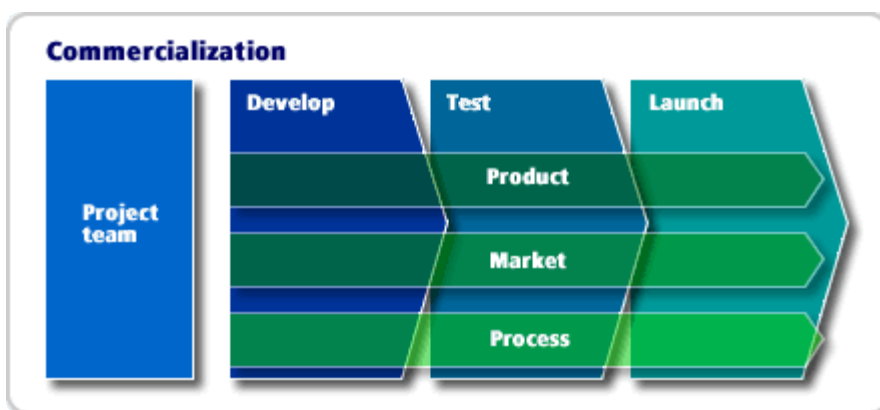


Commercialization: Translating Ideas Into Market Success

Commercialization is the second phase of the Product Innovation Life Cycle, our simple but powerful framework for product development and management. The first phase, *ideation*, covers generating ideas, evaluating and selecting promising concepts, and planning and securing funding for the best opportunities. In commercialization, you translate the business plan you developed in ideation into reality – you build and launch your innovative new product or service.

The objectives of commercialization are to *successfully develop and launch a new product or service within the minimum possible time and cost*. We define the success of the commercialization phase as getting to breakeven - the point where the product is generating sufficient revenue to cover its direct operating, sales and marketing costs. At that point, it moves beyond commercialization to the final phase, Evolution.

Commercialization is best conceived of as an integrated project that consists of three tracks (product, market, process) across three core stages (develop, test, launch).



This article discusses each of these elements, and how to maximize the chances of commercialization success.

Project team

An integrated cross-functional project team is a fundamental ingredient for effective commercialization. The team requires strong project leadership, as well as reliable supporters / sponsors throughout the organization.

A useful approach to the project team in the commercialization phase is Wheelwright and Clark's "heavyweight" team structure. In this structure, projects teams comprise cross-functional core members who are co-located and dedicated to the project, but remain part of their functional departments. These dedicated team members provide functional leadership on the project, and secure and coordinate additional functional resources as needed. The project manager, a senior-level leader with influence and experience, heads the core group and is responsible for the total development effort.

Note that for a start-up with a single development project focus, in effect the whole company is the project team, but as the venture grows it will need to evolve to balance product development and ongoing operations.

The "heavyweight" structure allows for excellent project team communication, commitment and problem solving. Also, because team members continue within their functional areas, the project team can easily leverage the resources, processes and competencies that exist within the broader organization.

Project tracks

The project team is divided into commercialization's three primary tracks:

Product – designing and developing the product itself through engineering and technical development.

Market – designing and developing the sales and marketing processes and tools needed to take the product into the market.

Process – designing and developing the operations needed to produce, deliver and support the product.

If the ideation phase has been executed properly, much of the research and planning for each of these tracks will have been completed. The focus in commercialization is on execution – turning these plans into reality. As mentioned above, the team will focus on two primary objectives:

- Successfully building, launching and winning initial customers for the product, and
- Doing so within acceptable time and cost parameters.

This requires continual problem solving and adjustment to the plans within each of the three tracks, in order to deal with the myriad details and problems that arise once actual development begins. It also requires continual cross-functional coordination, to ensure the product or service remains technically feasible, meets customer needs and can be produced and delivered at a profit.

Stages of commercialization

Commercialization comprises three primary stages or processes:

Develop – design and build the product, operational processes, and sales and marketing launch programs using iterative prototyping and continual testing.

Test – conduct live field product, market and process testing to evaluate "close to real" conditions.

Launch – launch to early adopters then “cross the chasm” to the mainstream, monitoring closely and adjusting quickly and frequently until initial market traction is achieved.

Each of these is discussed below in more detail, illustrating how each of the project tracks is managed within each stage. Note this is a conceptual framework, not a prescriptive timeline. In practice, different tracks may be in different stages. It is unlikely to be appropriate to complete all activities for each track within a stage before moving to the next stage.

Develop

Development is the first significant commitment in the product life cycle. It is here that the planning first needs to become reality, and it has been the dearth of many product concepts that never made it through the development stage.

The foundation for development success is proper completion of the ideation phase. The deliverables from ideation should include:

- detailed final product requirements and specifications based on in-depth market understanding
- a preliminary idea of the technical approach based on an early prototype
- a clear idea of how the product will be positioned, priced, marketed and sold
- a clear idea of how the product will be produced, delivered and supported
- a high level commercialization project plan, together with the budgeted timing, resources and funding.

With these in hand, the development project team is in a good position to move forward. Without them, development is much more likely to fail.

Development basically comprises having a clear idea of the end product desired; breaking the end product into logical component parts; designing and building each component; and then integrating the components into the whole. Historically, this was a fairly linear and functional process, with a primary focus on the components, and integration only at a relatively late stage.

In recent years, development teams have made significant improvements in time, cost and success rates by adopting a more integrated process focused on building a succeeding series of prototypes using an iterative “design-build-test” sequence. This begins with the prototype created during the ideation phase. At the end of each design-build-test loop, feedback is collected and integrated into the next loop to develop the next version of the prototype. This approach allows the team to keep focused on the overall product and not get lost in detailed components. It ensures that integration issues are identified and addressed throughout the process, and are not left till a point where significant re-work is needed. Tradeoffs are made continuously, feature and scope creep is contained, and the team remains focused on delivering an end product.

Good design is the real secret to successful development. With the solid foundation of the ideation deliverables listed above, superb design should be the prime driver of the development stage. Good product design will encompass three primary dimensions: *technical design*, to allow the product to function as intended; *design for users*, to make the product appealing and easy to use for customers; and *design for manufacture*, ensuring the product can be produced within the right cost, quality and time

parameters. More time on design saves time in building and testing, and reduces the number of iterations needed to get to a final product.

During the development stage, work progresses using prototyping and design-build-test cycles in all three tracks:

Product – designing and developing the product using rapid prototyping and testing.

Market – designing and developing sales and marketing processes, materials and launch campaigns.

Process – designing and developing the operational processes, including production, delivery and support.

By focusing on all three tracks, and constantly communicating across tracks, the project team ensures all facets required for successful product creation and launch are developed in close coordination.

Test

The second major stage of commercialization is the final validation before launch. It consists of live or field testing of the product, sales and marketing approach, and operational processes in real conditions, but on a reduced scale and with appropriate caveats to the market. Based on test results, final modifications are made to the product, processes and launch plans as key information and insights are collected.

Many ventures, under market and investor pressure, omit or skimp on the test stage. Successful ventures find ways to conduct testing, but in such a way as not to slow down time-to-market. A well-known recent example has been Google's approach, positioning products that are in production use by millions of users as beta versions. In this way, Google is in the market early, yet users do not have expectations of perfectly functioning finished products.

The following are some of the testing activities that should be performed within each track:

Product – internal (alpha) tests and external (beta) test to rigorously test the product in the native customer environment.

Market – marketing and selling to individual trial customers and to test markets to test the marketing messaging and tactics, and the sales channels and processes.

Process – pilot runs of operational processes in full production mode including sourcing from vendors and partners.

Launch

With the completion of the test stage, commercialization moves into the critical launch stage. The goals of launch are to release your product to market through a well-planned launch strategy, and get the product as quickly as possible to commercial viability. The point at which this is reached depends on your industry. We generally recommend defining the end of launch as when the product has sufficient market traction to achieve financial breakeven.

The first focus of launch is typically the “early adopters”. Early adopters are people who are either technology innovators who buy because it’s cool, or visionaries who buy to realize their vision or gain a competitive advantage. Typically comprising 5 – 10% of a market, they are easy to spot, asking questions like “What does it do?” and “How does it work?”. For a new product or service, early adopters are easiest to win as customers. In many markets, the early adopters are also key influencers in the market, with the ability to help build momentum until the “tipping point” is reached.

In the beginning, you should focus intensely on these early adopters, and do whatever it takes to secure these customers, including price breaks, extensive support and customization. By doing so you will generate your first vital revenue streams, and perhaps even more importantly, build a base of reference customers that will become important influencers and will play an key role in your success.

In parallel with your focus on early adopters, you should seek to confirm your planning and preparation to date as to your second focus – “crossing the chasm” to your mainstream target market. As Geoffrey Moore described in his well-known book, early adopters and mainstream customers have different needs and characteristic, and many ventures fail because they do not recognize or prepare for this.

The important group of mainstream customers on which to focus, comprising approximately 40 – 50% of the market, are pragmatists, who base their purchase decisions on reliable references and a clear return on investment. They are also relatively easy to spot, with questions like “Who else has bought this?” and “What’s the ROI?”.

To penetrate this group successfully, you need to focus on a very specific customer with an urgent, unmet need. Pragmatists prefer making no decision, primarily buy to solve problems, and only buy when the problem is so acute that it becomes as “top 3” item on their action lists.

Reaching them and winning them as customers, as you must to build any real revenue, requires intensive efforts, with constant agile adjustments to the details of product offering, sales and marketing approach and operational processes to find the optimal formula to unlock the market. For this reason, identifying and focusing on a specific market and need is a constant theme throughout our methodology, from the beginning of ideation.

Once you begin to get real traction with mainstream customers, your revenues begin to climb, you reach breakeven, and you transition beyond the commercialization phase of the product life cycle.

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Commercialization is the beginning of serious funding and resource commitment in the product life cycle. As such, it is the crucial stage where ideas become reality. Using the framework and ideas described in this article, you can significantly enhance your probability of success and reduce costs and time-to-market. The result will be to secure the vital initial market traction and financial results you need to get through the precarious commercialization stage, and to lay the foundation for long term product value and success.

Resources

Brown, Tim. [“Design Thinking: Thinking like a designer can transform the way you develop products, services, processes – and even strategy”](#) **Harvard Business Review, June 2008** (subscription required)

Tim Brown, CEO of prominent product design firm IDEO, introduces a method intended to avoid design isolation by asking designers to create ideas that meet people’s needs in a technologically feasible and strategically viable way. One of his recommendations is to undertake rapid prototyping. The goal of rapid prototyping is not to “complete” the prototype, but rather to learn about the strengths and weaknesses of a product and identify new direction for subsequent prototype versions.

Cooper, Robert G. [Winning at New Products: Accelerating the Process From Idea to Launch.](#)

One of the classic product development texts, it presents Robert Cooper’s Stage-Gate process, which has been adopted by innovative companies over the past two decades.

Jolly, Vijay K. [Commercializing New Technologies: Getting from Mind to Market.](#)

This book, focused on new technologies, lays out a end-to-end framework that differs from the strictly linear processes previously developed. The technology commercialization process presented by Professor Jolly advocates the use of five diverse sub-processes linked to each other by intermediate stages of stakeholder mobilization.

Moore, Geoffrey A. [Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers](#)

Moore’s classic introduces the gulf that exists between early adopters and the mainstream customers of high-tech products. He presents strategies for how to navigate this pivotal divide and market to the mainstream.

Wheelwright, Steven C. and Kim B. Clark [Revolutionizing Product Development: Quantum Leaps in Speed, Efficiency, and Quality](#)

An excellent source for building organizational capabilities for undertaking the commercialization phase. Wheelwright and Clark have championed the “heavyweight” team structure recommended in this article.

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