

Taking Your High-Tech Product to Market

1.1 Introduction

The SBA Learning Center presents: Taking Your High-Tech Product to Market.

Produced by the SBA's Office of Entrepreneurship Education, this self-paced course offers guidelines and suggestions for effectively taking your high-tech product to market. The subject matter is indexed for quick reference and easy access. It will take about 30 minutes to complete the course. Additional time may be needed to review included resource materials and to complete the "Next Steps" suggested at the end of the course.

Audio is used throughout the training, so please adjust your speaker volume accordingly. A transcript and keyboard shortcuts are available to assist further with user accessibility.

When you complete the course, you will have the option of receiving a course completion confirmation from the SBA.

1.2 Course Objectives

This course has five key objectives:

1. Identify marketing characteristics of high-tech products,
2. Describe reasons that high-tech products fail,
3. Identify the stages of the Product Life Cycle,
4. Explain the Product Diffusion Curve, and
5. Distinguish the elements of the marketing mix as they apply to high-tech products.

1.3 Course Topics

This course provides an overview of taking your high-tech product to market. Some of the topics covered in this course are:

- Characteristics of high-tech products
- Reasons why high-tech products fail
- The Product Life Cycle
- The Product Diffusion Curve
- High-Tech product considerations
- High-Tech product pricing considerations
- High-Tech product placement considerations, and
- High-Tech product promotion considerations

Many additional resources are identified to help you. Visit the resource icon in the course player or locate additional tools, templates, and mentors on SBA.gov once you finish the course.

Let's get started!

1.4 Characteristics of High-Tech Products

High-tech means different things to different people. Over time, products once considered leading edge technology become standard or obsolete, replaced by the next big thing. For example, Compact Discs, or CDs, are a relatively recent development that is being replaced by electronic media such as MP3 files and streaming audio. Many products, such as kitchen appliances, incorporate some technology, or are developed using advanced technology, but are not necessarily considered high-tech. So, what makes a product high-tech?

1.5 Innovation

High technology products typically allow the user to have a better experience than was available before, performing a function faster, cheaper, or easier. They may also provide either totally new functions or capabilities that consumers have not experienced before. As examples, the introduction of High Definition television provided a greatly-enhanced experience but functioned exactly the same as existing televisions, while smartphones such as the iPhone and Droid function very differently from the flip-phones they replaced. The largest part of marketing your product will entail understanding who has the need for this innovation and communicating the benefits it offers.

1.6 Perceived Risks

Another characteristic of high-tech products, from the consumers' point of view, is the inherent risk in purchasing an unknown entity. Highly innovative products often come with uncertainty about the market, the new technology, and the competition. Your marketing must address common consumer concerns such as functionality, reliability, and availability of technical support.

1.7 Life Cycle - Short Duration

High-tech products often have a short life cycle. No matter how innovative an idea may be, there is always usually someone else who finds a way to improve on it. Even high-tech products that continue to be in demand for a long time tend to undergo continuous updates and refinements to keep them at the forefront of technology. For example, the Apple iPad and Microsoft Xbox continually evolve with new features, faster speeds, and other advancements.

From a marketing standpoint, you often need to convince customers who are reluctant to part with their hard-earned money on a new, unfamiliar product that may be replaced with an updated, improved version a few months down the road. There may also be competing technologies that provide the same benefits in different ways. For example, Blu Ray and HD video required unique players, and both are now being replaced by streaming digital video.

1.8 Life Cycle - Marketing Challenge

Your challenge is to reduce or eliminate the customers' perceived risk, convince your potential customers that the benefits of your product outweigh their perceived risks, and persuade them to try your product by offering an incentive. Your marketing efforts should demonstrate how your product fulfills the customers' needs by providing greater performance and convenience, lower cost, or totally new capabilities.

1.9 Research and Development Expenses

High Research and Development (R&D) expenses is another characteristic often associated with high-tech products. High R&D expenditures can lead to high consumer prices. Because many small businesses lack the capital needed for R&D, they are unable to see their innovative ideas come to fruition.

1.10 Question 1

The fact that advanced technology is continually being improved or replaced is an illustration of what characteristic of high-tech products? Choose the correct answer and then select Submit.

- A. R&D Expense
- B. Innovation
- C. Short Life Cycle
- D. Perceived Risks

The fact that advanced technology is being continually improved or replaced is an illustration of having a short life cycle.

1.11 Product Life Cycle

To effectively market your product, it's important to understand the life cycle of a product as it evolves from the cradle to the grave. Businesses must be able to recoup their expenses during a product's longevity. The product life cycle is a model which reflects the estimated costs and profits of a product during each stage of its life cycle. Marketing strategies such as pricing and promotion are determined in large part by the life cycle stage occupied by the product.

There are some advantages to being a one-of-a-kind product entering the market. Since there is no competition at this point, you can set the price and gain a large part of the market. Being the first product of its kind may also help customers remember your product name. Similar products that follow are entering the market later in the life cycle, and may have a shorter overall life span.

There are four stages to the product life cycle: introduction, growth, maturity, and decline.

1.12 Product Life Cycle - Introduction

This stage is generally the most expensive stage of a product's life span. Sales are generally low at this stage while initial expenses such as R&D and promotion may be very high. The business's main purpose during this stage of the product life cycle is creating product awareness and generating demand.

Inform potential customers how your product will benefit them (e.g., save money or time, ease of use, convenience, increase productivity, adding prestige, etc.). Promotion efforts should target specific audiences or consumers most likely to accept your high-tech product or service.

Some examples of high-tech products in this stage include wearable tech and 3D printers.

1.13 Product Life Cycle - Growth

The product moves from the Introduction stage to the Growth state as customer demand for the product increases while production costs decrease. Businesses experience the majority of their sales and realize their highest profit margin during this stage.

Marketing efforts are shifted toward a broader audience to increase market share and create customer loyalty. A business may also alter its marketing strategy as it faces increased competition from other businesses entering the market with their version of the high-tech product.

Tablets and smart phones are examples of products at the Growth stage of the product life cycle.

1.14 Product Life Cycle - Maturity

The Maturity stage is characterized by a peak in sales volumes and declining profits. This stage is considered the most challenging as businesses aim to maintain their market share in a market which has become saturated while customer demand has decreased.

Marketing efforts at this stage focus on product differentiation among the competition. Businesses may also consider other means of gaining a competitive advantage such as by improving business processes.

PCs, laptop computers and digital phones may be considered examples of products in the Maturity stage.

1.15 Product Life Cycle - Decline

The end of the product life cycle is marked by steadily declining sales and profits. The product may become obsolete at this point as new, improved products assume their positions and takeover market share. Companies at this stage may decide to discontinue the product or seek ways to reduce other costs.

Fax machines, and land line telephones may be considered by some to be examples of products in the decline stage. Can you think of some other examples?

1.16 Product Life Cycle - Summary

The Product Life Cycle is one of several management tools available to help you make well informed decisions. You also need to consider how customers will respond to your high-tech product during each stage of the product life cycle. Research into buying behavior patterns has been found to have a direct correlation between adoption (buying) of innovation and demographic groups.

1.17 Question 2

The four stages of the Product Life Cycle are Introduction, Growth, Maturity, and _____? Choose the correct answer and then select Submit.

- A. Termination
- B. Revision
- C. Cancellation
- D. Decline

The four stages of a Product Life Cycle are Introduction, Growth, Maturity, and Decline.

1.18 Product Diffusion Curve

The Product Diffusion Curve was developed in 1957 and originally applied to agriculture. It was a result of research conducted to study farmers' adoption of hybrid corn seed. Its application has been extended to various product categories including continuous innovations.

Note that the adoption rate among the groups forms a bell curve. Those first and last to adopt innovation are at the extreme ends of the bell curve while the majority of customers fall in the middle of the curve. Understanding how these groups respond to new products will help you to develop your marketing strategies.

1.19 Product Diffusion Curve - Innovators

Innovators make up the smallest group of consumers of new products. They are the first to readily adopt new technology. They keep up-to-date on the latest technology in a particular industry. They are eager to try the latest innovation and are willing to take risks when it comes to purchasing untested products. Their adoption of a new product is likely to influence the Early Adopters.

An example of this is an online technology blogger who reviews new products. A great review by a prominent reviewer will have a huge influence on early adopters.

1.20 Product Diffusion Curve - Early Adopters

Early Adopters, like Innovators, also readily adopt new products. Early Adopters regard themselves as trendsetters and respond to promotions appealing to their sense of prestige. Early Adopters also seek new products to gain a competitive advantage. They are well-informed and willing to learn new technologies. They are willing to take a risk and pay for it, too, although they prefer to wait until the Innovators have weighed in.

1.21 Product Diffusion Curve - Early Majority

The Early Majority comprises approximately one-third of all potential consumers; therefore, it's essential to gain their adoption. They are not as willing to rush toward purchasing a new product. They're open to innovation, but cautious. They want proof that the product works, meets their requirements, and is easy to use, requiring little or no time to learn how to operate. Price plays a significant role in the decision-making process whether to adopt the innovation.

There is often a wide gap between the Early Adopters and the Early Majority - this is referred to as a Chasm. The Chasm occurs as a result of declining or stagnant sales in the early market and a simultaneous lag or delay in adoption by the Early Majority. Whereas Innovators and Early Adopters are eager to adopt and spend their money on high-technology, saturating the Early Market, the Early Adopters prefer to take a wait and see approach to ensure the product works and costs decline before adopting the innovation.

To overcome or cross the chasm and enter into the Mainstream Market, you must readjust your marketing strategy to address the needs of a select segment of the entry group.

1.22 Product Diffusion Curve - Late Majority

The Late Majority also makes up approximately one-third of all potential customers. The Late Majority is characterized as somewhat conservative. They prefer to wait to adopt an innovation until it has become widespread and standard. They also tend to wait until the price is lower.

1.23 Product Diffusion Curve - Laggards

Laggards dislike change and, generally speaking, will only adopt a new product when there is no other option available to meet their requirements.

1.24 Question 3

The smallest group in the innovation adoption life cycle is typically the _____.

Choose the correct answer and then select Submit.

- A. Laggards
- B. Innovators
- C. Early Majority
- D. Late Majority

The Innovators are typically the smallest customer group in the innovation adoption life cycle.

1.25 The Marketing Mix

Product, Price, Placement, and Promotion - these marketing elements are called the Four 'P's' of Marketing, and it's essential for you to understand their use to effectively reach the right customers at the right time.

They are how you focus on the needs of the target market. They allow you to better understand and respond to your customers, and identify your best marketing approaches.

If you're not already familiar with these concepts, you should check out the Small Business Administration's introductory training on marketing concepts: [Marketing 101: A Guide to Winning Customers](#).

1.26 Product Marketing - Strategy

When determining your market mix, you should first consider your product strategy. The product is the tangible or intangible goods or services you are offering as a solution to your customers' needs. From a marketing perspective, consideration should be given to which product features or attributes appeal to your target audience, also called the market segment. This is a subset of consumers or businesses who are likely to be interested in your product.

Select each tab to learn more.

Clearly explain what your product is and/or does, and then expand with details such as the versatility of your product, its uniqueness, efficiency, design, appearance, safety, convenience, durability, quality, ease of operation and maintenance, customer service, technical support, or other qualities. This should be more than just a simple list of features. You need to develop statements about the benefits your customer will receive by choosing your product to address their needs. As an example, tell the customer how the unique design makes it more comfortable to hold, and the controls are ergonomically placed to require minimal movement.

You need to identify a customers' need that is not being met by competitors, and then demonstrate how the unique attributes of your product can meet that need unlike any other product. All the other elements of the marketing mix revolve around the product.

Examine how certain product features may appeal to each market segment as your product proceeds through the life cycle. While Innovators and Early Adopters may be attracted to the number of applications your product has to offer, Early and Late Majority customers prefer not to spend their money on features that they do not need or want.

Examine the product's entire package when determining how your product can satisfy a customer's needs. This includes intangible qualities such as simplicity or speed, and extra features and services such as product warranties or customer service.

1.27 Product Marketing - Brand Name

The brand name of your product should be memorable. It can create an image in your customer's mind that conjures the product's features or qualities, or simply be something catchy. As examples, a Deskjet All-in-One Printer creates a very specific product image, while the TiVo Roamio is a play on words that provides a touch of humor.

A brand name's ease of use in Internet search engines is more critical than for most other products, as web browsers will often be your best avenue for reaching Innovators and Early Adopters. Short, easy-to-remember names that are global web search-pronounceable are usually best.

A brand may also include an accompanying slogan, logo, and/or colors. Logos and colors may be used to identify and recall your product in the customer's mind such as McDonald's golden arches or the UPS big brown vans. Be consistent in the look and feel of your brand. The brand should position your product in the customers' minds.

Once again, take into consideration your target customers and their needs, how your product meets their needs, and how your product is different than the rest.

1.28 Product Marketing - Pricing

High-tech product pricing is different from most other products in a number of ways. First of all, the fast-paced development of technology requires you to take advantage of a relatively small window of sales opportunities.

Another factor is how much the product costs you to make. High-tech products usually require larger investments in research and development, as well as initial production costs. If you are marketing a totally new concept, you need to identify the value your product offers to your customer. Is it economic, functional, or emotional?

How does the value of your product compare to that of similar products offered by competitors? If there are other products like yours available, it is important to establish your price based on comparable value.

Innovators are willing to pay more for high-tech products entering the market than their counterparts. As your product moves from the Early Adopters to the Early Majority and encounters more competition, you may need to reduce your price to attract the Late Majority and Laggards. Consider offering a free-trial period to further entice customers to try your product or provide other special offers.

Of course, normal pricing strategies will also come into play. The Small Business Administration offers a number of resources on product pricing. Select the provided links to learn more.

[How to Price Your Small Business' Products and Services](#)
[Learn How to Price Effectively](#)

1.29 Product Marketing - Placement

Product distribution channels include sales channels, such as person-to-person sales, and direct mail; delivery channels, such as brick-and-mortar stores and direct shipping; and support channels such as installation and maintenance. You need to determine which type(s) of sales channels, delivery channels, and service channels to deploy in order to enable your customers to conveniently find your product, purchase it, and use it. Additionally, you need to decide whether to provide these three distribution channels directly or through a third party (indirect channels) or use a combination of direct and indirect distribution channels.

High-tech products will most often make best use of Internet-based distribution channels. These include tech-savvy online marketplaces such as Amazon and eBay, which provide sales services for almost any vendor from the individual entrepreneur to major corporations. You may also want to check specialty sites, trade groups, and blogs that appeal to people who might be interested in your product. Remember that your initial customers are going to be Innovators and Early Adopters, both of whom will usually be very active on the Internet.

Some factors to consider when choosing your distribution channels include market size, costs, and the product. During the Introduction stage of the product life cycle, when the market is relatively small, limit distribution channels to keep your costs down. Add channels during the Growth stage to extend coverage of the market size resulting from increased customer demand. Reassess whether to change distribution channels to meet the needs of your changing target customers as your product moves through the product life cycle.

If your product is a customized product, you will likely employ a direct or in-house sales force that is highly knowledgeable and can address your customers' needs. If your product is a standard product, then you may want to consider using indirect sales and support channels.

1.30 Product Marketing - Promotion

There are many options available to you to get the word out to your customers about your new product. Which options are most likely to reach your target market? Here are some potential promotional avenues. Select each to learn more.

For high-tech products, one key and relatively inexpensive promotional tool is a product web site. The potential customers for high-tech products are likely to use the Internet for research, and you need to make sure the information on your product is both easy to find and understand. Your product web site is not only the most cost-effective way to provide details to prospective customers; it can be referenced by almost every other promotional avenue.

Trade shows, seminars and webinars are often effective promotional avenues for high-tech products in not only reaching your target customers but increasing their understanding of your product. Examples include the International Consumer Electronics Show, Mobile World Congress, and the Electronics Entertainment Expo, annual trade shows where emerging technologies and new products are displayed and demonstrated. Trade shows and seminars also have the additional benefit of allowing your potential customers to see your product in action; try it for themselves, perhaps; and ask questions. Trade shows and seminars also provide you the opportunity to hand out printed materials containing additional information and promotional items bearing your logo.

The Internet provides a wide variety of promotional resources that can be free or very low cost. As mentioned earlier, you may want to supply your product to an online blogger who reviews new technology. A great review by a prominent reviewer will have a huge influence on early adopters. A promotional video placed on YouTube can be a free and effective marketing tool, and if you make your message particularly clever or appealing, might reach hundreds of thousands of potential customers.

Social media networks such as Facebook and Twitter provide two-way communications between you and your customers, providing you immediate feedback. Additionally, some sites enable you to share photos and videos. It's advisable that you initially limit your communication efforts to two to four sites. This will enable you to better manage your message. If you are going to use more than one site, it's recommended to deliver different content on each channel while maintaining a consistent image. For example, use one site to post videos and dedicate another site for sharing information and links to other sites.

You can also purchase online paid advertising space from social media sites, as well as on high-tech related web sites such as C-NET. These can be anything from a simple teaser image to animated displays, any of which can also provide a link to your product web site.

One note of caution regarding the use of pre-announcements in which you release information about your product months prior to actually making it available for purchase. Many high-tech companies have used this strategy only to miss promised release dates or feature sets, resulting in what is called "vaporware." This occurs from failing to deliver the product on time or releasing a product that fails to perform as announced. Or, in some cases, the buzz generated by the pre-

announcement created such a high demand for the product that the company could not support increased production.

Advertising, at best, can grab the customers' attention but it won't guarantee the customer will buy your product. Targeting the wrong audience, using the wrong media to get your message across, or failing to identify your message objective or sending an unclear message are just some examples of ineffective advertising. These are all also symptoms of not understanding the market. Use advertising to emphasize the existing positive distinguishing aspects of your product and how it meets the customer's needs.

1.31 Product Marketing - Launch

In determining when to launch a product, consider whether the timing is right for the customer. If your product costs a small fortune, a pre-announcement may be appropriate by giving your customer time to save or budget for your product. Just be sure your product is capable of delivering what you promise and you are capable of delivering the product.

1.32 Question 4

You want to promote your new high-tech product but have a limited budget to work with. Which of the following will be the most effective way to provide information to potential customers? Choose the correct answer and then select Submit.

- A. Product web site
- B. Trade magazine advertisement
- C. Television advertisement
- D. Trade show booth

Of the choices offered, a product web site is going to be the most effective way to reach a high-tech product customer.

1.33 Reasons Why High-Tech Products Fail

Failure to attract or keep customers' interest in a high-tech product can be attributed to one or more shortcomings or oversights. These are some of the common practices of high-tech businesses which caused them to fail. Select each of the tabs for more information. When you have looked at all of the tabs, select Next to continue.

In an effort to reach as many potential customers as possible, some businesses attempt to market themselves as providing solutions to all customers, rather than focusing their attention to a few select niche markets. This mass marketing approach can lead to overwhelming the support staff trying to handle an influx of requests for customer support.

Quick introductions of high-tech product add-ons or updates following a product launch or while the customer is still trying to realize a return on his or her initial investment can lead to buyer's

regret. This may cause the consumer to think twice about buying another product from the company. It may also generate negative word of mouth.

Marketing efforts that focus exclusively on the features or specifications of a product holds little appeal to the majority of customers, unless you demonstrate how those features can meet the customer's needs. Research has shown customers are more interested in the intangible aspects of a product such as customer support.

Failing to make your product stand out among the competition can lead to failure. Distinguish your product from the competition by focusing on one or a combination of the product's attributes: function, convenience of access, price, and image. These should be chosen carefully and reflect the way your product addresses customer needs.

Some businesses may initially offer their product at a low price in an effort to attract customers and gain a foothold of the market share. Pricing alone is insufficient in securing consumer adoption of the high-tech solution.

Advertising, at best, can grab the customers' attention but it won't guarantee the customer will buy your product. Targeting the wrong audience, using the wrong media to get your message across, or failing to identify your message objective or sending an unclear message are just some examples of ineffective advertising. These are all also symptoms of not understanding the market. Use advertising to emphasize the existing positive distinguishing aspects of your product and how it meets the customer's needs.

1.34 SUMMARY

Some characteristics of high-tech products include short life span, high R&D costs and uncertainty. You will need to overcome customers' perceptions of risks associated with high-tech products.

Be aware of the top reasons for high-tech product failure and try to avoid or mitigate the risks associated with them

The Product Life Cycle consists of four stages: Introduction, Growth, Maturity, and Decline.

The Product Diffusion Curve model reflects the adoption rates of new products and discontinuous innovations, respectively, by demographic groups. Innovators are your first customers, followed closely by the early adopters and early majority. More cautious buyers make up the late majority, with your last potential customers being laggards who resist change.

Understanding and knowing how to use the marketing mix (product, price, place, and promotion) in conjunction with the Product Life Cycle can help inform your decisions as you prepare to market your high-tech product.

1.35 Resources

SBA has a broad network of skilled counselors and business development specialists. Below is a short description of our resource partners:

- There are more than 1,000 **Small Business Development Centers (SBDCs)** located around the country. SBDCs provide management assistance to current and prospective small business owners.
- **SCORE** is a powerful source of free and confidential small business advice to help build your business. More than 10,000 SCORE volunteers are available to share their experience in lessons learned in small business.
- **Women's Business Centers (WBCs)** assist women and men in achieving their dreams by helping them start and run successful businesses. Over 90 WBCs are located around the country.
- The **SBA** has over 60 **District Offices** located throughout the country to help you start and grow your business.
- The **SBA Learning Center** is a powerful virtual campus with online training, videos, tools and links to local resources.
- The SBA's **Office of Women's Business Ownership (OWBO)** serves as an advocate for women-owned businesses. The office oversees a nationwide network of 110 Women's Business Centers that provide business training, counseling and mentoring geared specifically to women, especially those who are socially and economically disadvantaged. The program is a public-private partnership with locally based nonprofits.
- The **Veterans Business Outreach Program (VBOP)** is designed to provide entrepreneurial development services such as business training, counseling and mentoring, and referrals for eligible veterans owning or considering starting a small business. The SBA has 15 organizations participating in this cooperative agreement and serving as Veterans Business Outreach Centers (VBOC).
- **Procurement Technical Assistance Centers (PTACs)** provide local, in-person counseling and training services for you, the small business owner. They are designed to provide technical assistance to businesses that want to sell products and services to federal, state, and/or local governments. PTAC services are available either free of charge, or at a nominal cost. PTACs are part of the Procurement Technical Assistance Program, which is administered by the Defense Logistics Agency.

Find your local resource using our handy [zip-code tool](#).

1.36 Have a Question?

- Call SBA at 1-800 U ASK SBA (1-800-827-5722)
- E-mail SBA at answerdesk@sba.gov
- Locate a SCORE counselor, SBA district office near you, or an SBDC office near you at www.sba.gov/local-assistance
- To provide feedback, comments or suggestions for other SBA online content, please email learning@sba.gov

1.37 Certificate

Congratulations on completing this course. We hope it was helpful and provided a useful introduction to taking your high-tech product to the market. Click the certificate to receive a course completion confirmation from the U.S. Small Business Administration.

2.0 Recommendations

A.C.T. NOW!

The Article, Course and Tool below are related to the course you just completed. They are provided to help you take action on your path to entrepreneurial success. You can also get in-person assistance for all your business needs through a local resource center. And if you liked the course, please help spread the word by sharing it with your friends!

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Take Another Course.

SBA's course, [Patents, Trademarks, Copyrights](#), gives an overview of intellectual properties and explains how to protect them.

Try a Tool.

SBA's partner, BusinessUSA created the [Start a Business Tool](#), which will guide you through aspects of starting a business and finding information you need to succeed.

Find local assistance!

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