

- A PUBLICATION OF NINJA DESIGN SOLUTIONS -

HOW TO DESIGN

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# A WINNING PRODUCT FOR ECOMMERCE

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THE STEP-BY-STEP GUIDE TO THE PRODUCT DEVELOPMENT PROCESS

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# CHAPTER ONE

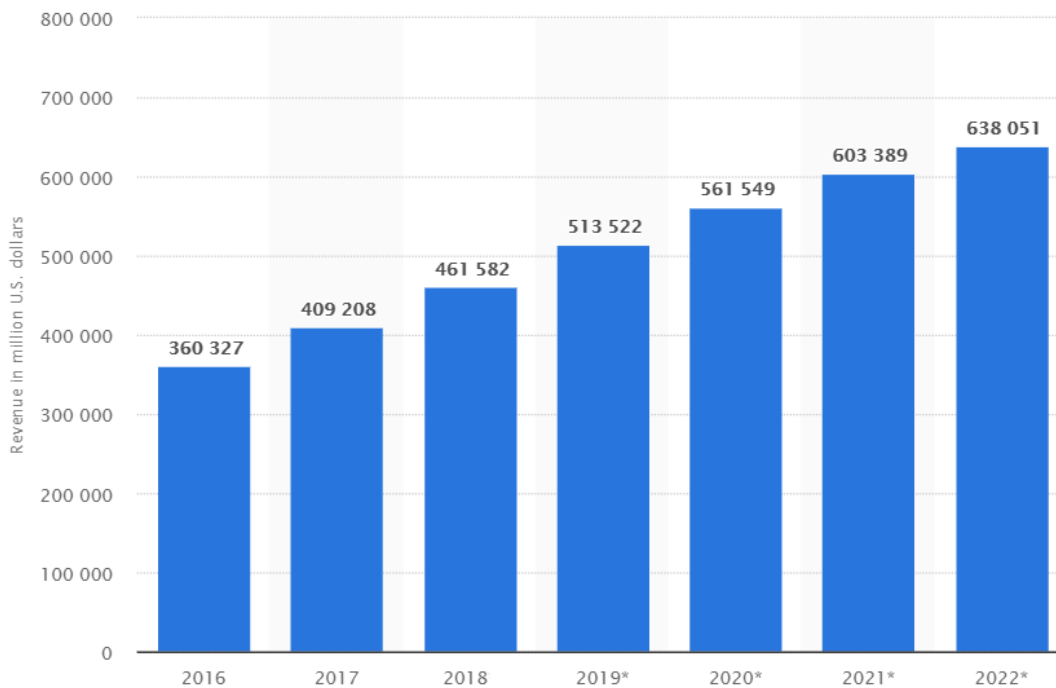


# THE RISE OF ECOMMERCE



Ahh, the magical world of ecommerce, a world filled with competitive prices and everchanging trends giving consumers the ability to purchase that new blender they've been wanting from the comfort of their own home. It's no secret that it has changed the way society sells goods and services. The convenience factor alone has caused an upward trend in the online industry and it doesn't seem to be slowing down anytime soon. According to a survey from Statista.com, the total US revenue from online stores is expected to continue increasing 10% each year, reaching nearly 640 billion dollars by 2022.

### *Retail Ecommerce Sales in the United States from 2016 to 2022*



With such a steady increase in revenue, it's difficult to not want in on the action. Maybe you've already been selling products online and have a successful business, or maybe you're simply starting to explore the industry and it's potential. Either way... are you really getting your full piece of the pie? Rather than simply slapping a new label on an existing product, it might be time to consider designing your own product to sell online.



That being said, you can't sit around and wait for product ideas to magically come to you. Good entrepreneurs are proactive and they go out and find problems to solve. In this e-book we are going to outline the steps necessary to expose those problems and design a winning product for ecommerce.

## CHAPTER TWO



# INVESTIGATION



# STEP 1

## Research the Market



Before you spend a lot of time and money creating a product, you should know if anyone will want to buy it. Look at what's out there and size up the competition. Do products that are similar to your idea exist, and if so, where are they sold and who's buying them? Answering these questions will give you an idea of your target market, as well as what you'll need to do differently to stand out from your competitors.

You don't want to be a me-too product, however you don't need to invent a brand new technology. All you have to do is come up with a unique angle for a product that you might want to sell. The unique angle could be a new feature. Have a look at reviews for existing products on sites like Amazon and see what people are saying about them. You might find people complaining about the lack of a crucial feature in a product, or asking for certain features that aren't there. That's an opportunity for you to cash in. Take this Amazon review of a boat cover support for example, the customer addressed an issue with the current design and even suggested a solution.



★★★★★ **dbease** · 5 years ago

### Gets the job done...

Inexpensive and just what the doctor ordered....with one modification. The plastic mushroom top that comes into contact with the boat cover is a bit slippery and hard to keep in place. I glued a piece of rubberized shelf liner (the one with the holes) to the top and it solved the problem. Another customer did the same thing. So far it has worked well. No problems and no failures.



Even a design upgrade will make your product stand out. Look at how Nest has been able to build a huge eCommerce business by selling products like thermostats. The only difference is that their products have a way better design than existing ones.

You can also try combining product ideas to come up with new ones. We already have pens that double up as USB ports, phone cases that also hold credit cards and dress shirts made from activewear fabrics.



Pen with USB Port



Wallet Phone Case



Activewear Dress Shirt

# STEP 2

## Understand the Patent Laws



To avoid legal issues down the road, it's best to fully understand patent laws and how they apply to your product. Let's start by asking ourselves what a patent is and how it is significant. A patent is a legal certificate that gives you the right to protect your invention for up to 20 years in specific territories. Patents are not only limited to products; they cover compositions, processes, methods and systems as well. They do not cover mere ideas (i.e. a time machine). Ultimately, they are used to add value to your business, enhance your brand image, and negotiate finance. Maybe your product doesn't necessarily fit this bill, and a patent is not needed. If this is the case you can skip to step three, otherwise you should consider the following options on the next page:

- **Search for existing patents**

Before applying for your own patent, it's crucial to research what already exists out there. Would your design infringe upon someone else's copyright or intellectual property (IP)? Visit the U.S. Patent and Trademark Office (USPTO) website and investigate any patents on items like the one you want to invent. If you have questions or want to be sure your invention is legal for you to create and sell, consult with an attorney specializing in patents and IP law.

- **Apply for a new patent**

So, you've done your research and discovered that your product doesn't infringe on any existing IP's. The next question to ask yourself is if your product is worthy for a patent. Patentable inventions must solve a technical problem in a new and non-obvious way. If you believe your product contains features that can be patented, the following page will outline a few options you have:

# Patent Application Options

## **DIY Patent (~\$1000)**

If you have a rather low budget and are willing to do a significant amount of research, one option is to apply for a patent yourself. This is seen as a rather dangerous practice because if you make one mistake, your patent can essentially be void. To do this correctly, you must invest a lot of time educating yourself and understanding the technicalities of a patent application.

## **DIY Provisional Patent (~\$100)**

The second DIY option is to file for a provisional patent, which allows your idea to be patent pending for one year while you figure out if your invention can be commercialized. Keep in mind that you must file for the full patent by the end of the year or else you could lose your idea. Since this is another DIY option, the same risks apply to the validity of the documentation.

# Patent Application Options (Continued)

## **Hire a Patent Attorney (\$5,000-\$10,000)**

If your budget allows a bit more cash to spend, the suggested option is to contact a patent attorney and let them do the legwork. This way you can be sure your paperwork is legitimate and your idea is truly protected.

## **Partner up with a Patent Attorney (possibly free)**

This option is not necessarily promoted by patent law firms, however it is possible if you find an attorney that absolutely loves your idea. The theory is to partner up with an attorney by offering equity or some type of stake in your company. One major benefit to this is the possibility of the law firm having clients that could use your patent. Maybe one of their clients sees your company and wants to buy it out, who knows? Either way, this option is something to seriously consider as it can save you money as well as boost your network.

## CHAPTER THREE

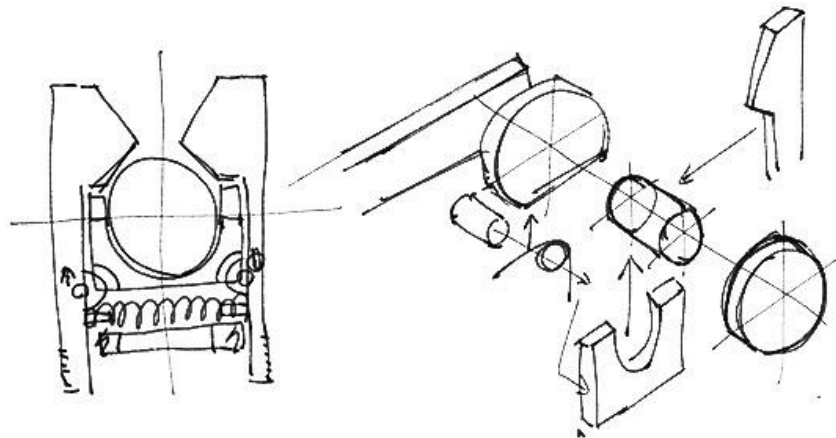


# DESIGN & DEVELOPMENT



# STEP 3

## Start Sketching!



You might already have the product pictured in your mind, or you may have absolutely no idea what it looks like. Either way, you will want to brainstorm various ideas and features that you can incorporate in your design. Simply grab a pencil and paper and start sketching. Even if you're not the best sketcher in the world, it's fine. All you are doing here is putting your idea on paper.

“ *There are no rules. That is how art is born, how breakthroughs happen. Go against the rules or ignore the rules. That is what invention is about.*

- Helen Frankenthaler, Artist

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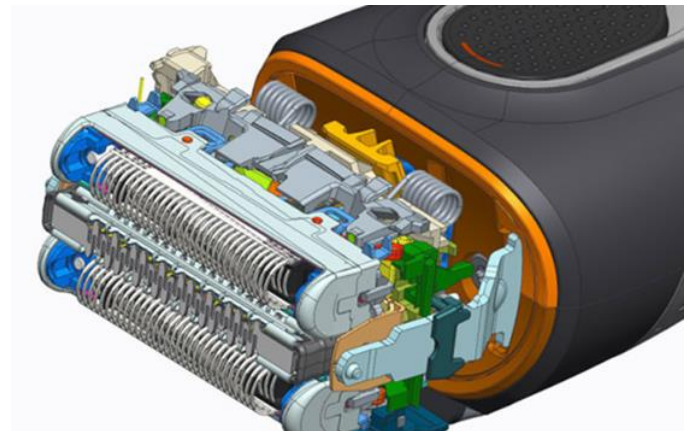
# STEP 4

## Create Computer Models

It's time to take your idea to the next phase and generate computer-aided design (CAD) files. The term "CAD" is thrown around quite a bit in the product design world, and it might be a bit confusing what a CAD file actually is. In short, CAD files are simply representations of your product that are made on a computer. There are dozens of different file types that each serve their own purpose, however we will only be focusing on 3D models and 2D drawings.

### 3D Model

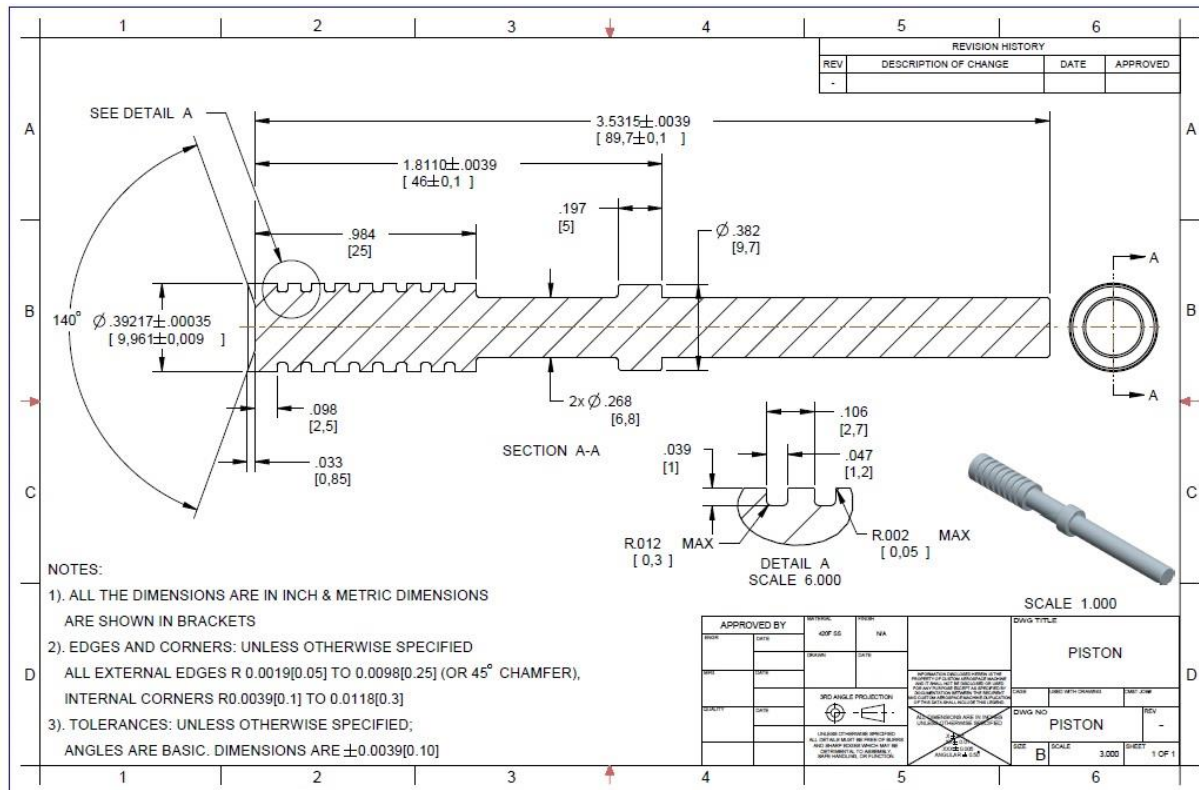
This is the stage where your 2D sketch gets turned into a realistic computer rendering. The purpose of having a 3D model is to help visualize your idea and verify the concept will work. Many powerful 3D modeling tools can be used to perform motion and strength simulations to give you confidence in your design.



3D CAD Model of Electric Razor



## 2D Drawing



## 2D Engineering Drawing

Once a 3D model is created, it's used to generate a 2D technical drawing, specifically referred to as an engineering drawing. This is used to specify various information of your part including dimensions, tolerances, materials, colors, and other notes that are determined to be important for the manufacturing process. Consider this drawing as a contract or agreement between you and the manufacturer; they must abide by the specifications you've provided in the drawing. Be aware that if your drawing holds the part to high standards (i.e. tight tolerances, high-strength materials, etc.) the manufacturing cost will increase.

# STEP 5

## Create a Physical Prototype



A prototype is the first step of taking the idea in your head and turning it into an actual product. Before investing deeply in tooling for manufacturing you can confirm both the market potential and whether or not your design idea will work as intended. You need to show a prototype to your target customers to confirm your intuition that people want to buy your idea.

Generally, you'll build several prototypes. The crude prototype is a model that enables you to get a better feel for the basic premise of your invention. This can usually be something you whip up yourself. A working prototype is something that allows users to try out some or all features of the design. A final prototype is a model that looks and functions almost like a manufactured product.

# STEP 6

## Search for Manufacturers



Don't get too comfortable yet; the sourcing and manufacturing of a consumer product is not a simple task. Done incorrectly, your product could end up costing too much to make or, worse, not being made at all! Before you get started, there are vital tasks to complete in preparation for lining up the right manufacturer.

When it comes to preparing for sourcing and manufacturing, the devil is indeed in the details. Developing a feel for the economics involved in bringing your product to market is essential, but you'll also need to make sure you've assembled all the information you need to properly communicate all of your requirements to potential manufacturers.

## Choose Between Domestic and Overseas Sourcing and Manufacturing



Determining where to make your product is essential. There are many advantages to manufacturing your product offshore. Costs are typically lower, both for labor and rental of facilities. Well-educated, technologically-skilled workers are often available for a fraction of the salary they would command in the United States. Additionally, storage space and shipping are typically readily at hand. Furthermore, you may also gain access to those markets where your manufacturing is based.

There are advantages to keeping your production in the U.S. as well. For example, though products with assembly will be cheaper overseas, big parts that take up space in a shipping crate may be cheaper here. You'll also need to account for shipping and duties. Other benefits including easier shipping, more oversight and access to a team in a similar or same time zone, as opposed to one that operates on completely opposite business hours.

## Design the Packaging for your Product



The difference between having a consumer grab your product from the shelf, or passing it by, may be the packaging. Sometimes creating great packaging can be its own development process. Luckily, many product manufacturers have connections to packaging design companies, and some even manufacture the packages themselves.

When you approach your potential factory, you should have files outlining what the packaging should be, or at least an idea of what you expect for the final presentation. You will not only be looking for a design that will capture a shopper's imagination but one that will allow your product to arrive undamaged at the point of sale. Packaging and packing materials will also have to be robust, as it will need to pass a drop test before it is approved for shipping.



## Get Manufacturing Price Quotes



After sharing your product information with several manufacturers, you will want to get price quotes based on the volume you expect to produce and sell. Hopefully these quotes are in line with other items on the market, however don't be discouraged if you find your prices are a bit on the high side. If your device is solving a problem and your research shows that it provides value to potential customers, they will more than likely be willing to pay for the higher cost.

Additionally, there are many ways to reduce these costs by tweaking various aspects of the design. Sometimes the manufacturers will even provide insight on how to reduce the costs, whether it be adding a hole for their manufacturing process or changing the material of a certain component.

Once you've established the manufacturing costs, you can then determine the wholesale and retail price of your product.

## CHAPTER FOUR



# PRODUCT LAUNCH



# STEP 7

## Promote your Product Launch

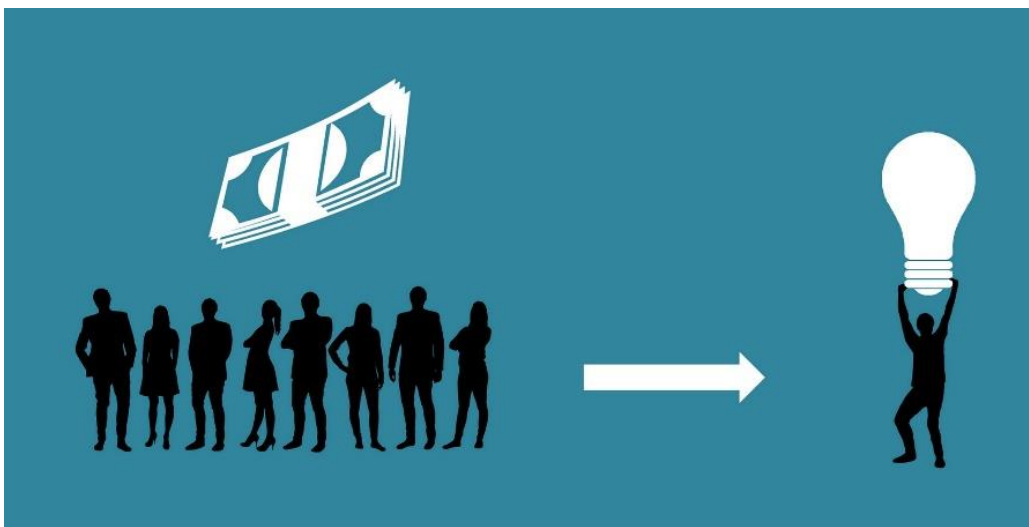


Congratulations, you've pushed yourself through the product development process and survived. You now have a beautiful and cost-effective design that is ready to be shown off to the public. Although you aren't quite out of the woods, you start to notice you're in familiar territory. If you already have an established ecommerce company, marketing should be nothing new to you. The following pages will provide a few inexpensive ideas to help you utilize your expertise and start promoting your product launch.



## Utilize Crowdfunding Platforms like Kickstarter or Indiegogo

The crowdfunding industry was believed to have all started in 1997 when a British rock band funded their reunion tour through \$60,000 of online donations from fans. Since then its popularity has grown tremendously, reaching 34 billion dollars in 2017 with predictions of reaching 300 billion dollars by 2025.



The practice of funding a project, a venture or a cause has become increasingly popular because it creates a win-win situation for you to not only promote your product, but also receive some generous financial support to further your product development. When embarking on a crowdfunding campaign, it is important for you to understand the mindset of your potential supporters. Even if crowdfunding is a viable or even widely-accepted option in your market, the way you explain and promote your product can decide the success of your crowdfunding campaign.

## Create a Teaser Campaign on Facebook

Create a teaser campaign on Facebook even before the actual conception of your product. A teaser campaign sends a message to the social media world that something exciting is about to happen. Even if you do not end up creating the exact product you have originally hoped for, you have probably developed relationships across social channels, giving you a great opportunity to take the launch process to an entirely new level.



Update your teaser campaign with interesting, creative, and informative updates/posts. Behind the scenes videos are also popular for its effective audience engagement.

## Find Influencers to Talk about your Product

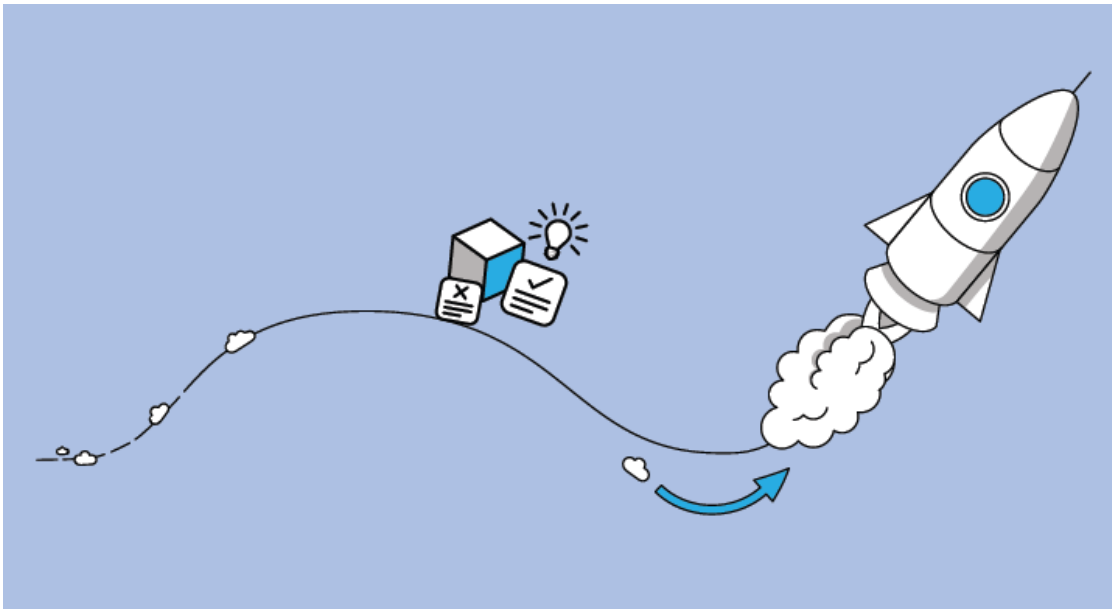
There are likely authoritative figures or influencers who are well-respected in your target market. Influencers have lots of followers, subscribers, and fans who quickly answer to any endorsement and recommendation. As Penny Baldwin, CMO at McAfee, says, “80% of the Internet’s impressions are driven by just 6% of its users.”



While asking your influencers to talk about your products on their blogs/websites as well as their social media is a smart first step, using services like ClearVoice.com or Klout.com will enable your influencers to outreach a more diverse audience. Because both services feature influence campaign and rates online content producers with scores, people tend to view the content promoted on those sites as more authoritative. Your product launch effort will experience a generous boost because the people who promote your product are talking about your product in a credible online community.

# STEP 8

## Launch your Product



Once the scene is set, the lines rehearsed and the production revised, all that remains is for your product to make its entrance. It's vital that you stay focused on the execution and be ready to put out any fires. Hold a final meeting with your sales team to educate them on the sales strategy and prepare some type of event. Even if your launch isn't a live event with speakers and red carpet, you can at least make it an occasion. Host a webinar, do a Reddit AMA, or try out a live social chat. Invite your influencers to attend the event, bring customers and press into your office for a live demo. Whatever you do, strive for an in-person element. It will help propel your launch even further.

# STEP 9

## Follow up with Potential Customers



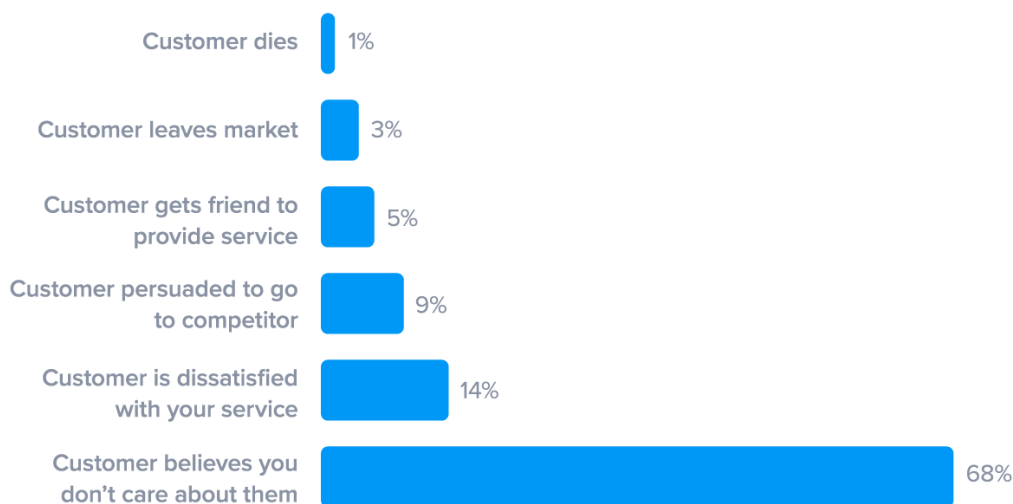
You'll reach a lot of people with your launch, but it often takes several touch points before someone is convinced to buy your product or even get a free demo. Make sure to continue to move folks who've raised their hands as "interested but not ready to buy" down your funnel. This means nurturing emails, free trials, demos, and more in-depth, product-focused webinars and activities. Build extra creative promotional content, like a longer video or social media posts that you can save for after the launch. This will give you fresh assets to share.

Once you've had a little more time away from your launch, spend some time to analyze the results. Where did your campaign succeed and fail? What did you fail to anticipate? What did you learn? Post these to your internal wiki or as a public blog post, the transparency will give your customers a sense of honesty and trust.

# STEP 10

## Shift your Focus on Retention

### Why Do Customers Leave a Company?



Marketing can generally play a bigger role in driving new users, but it's important to work with your product team to figure out how you can help keep those users around. Acquiring a new customer is six to seven times costlier than retaining an existing one. It's a good idea to continue ongoing education like post-launch product webinars, as well as sharing case studies and success stories to show your users what they can achieve with your product. Consider providing special offers and rewards for your most profitable customers. Personalize your follow-ups, let your customers know they are valuable and indispensable.



# CONCLUSION



If you're in the ecommerce game and are looking for something more satisfying than slapping a new label on an existing product, designing your own product may very well be the answer.. but let's not sugarcoat it, the development process is a rather long and experimental one. This guide is not meant to scare or discourage you from creating your own custom product, but rather educate and prepare you for the journey.

The most challenging part is staying focused and on track. Remember that parts of the process are rather iterative, so you may find yourself occasionally taking a step back in order to move forward – that's completely acceptable! This venture will be sure to challenge you, but leave you with sense of accomplishment and a product that will hold its place in the market for years to come. The only thing left to do is roll up those sleeves and get started!

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*Still have questions about the product development process? Would you like to develop your own custom product? Feel free to contact our team for a product design consultation. We will be happy to guide you through the steps and set you in the right direction!*

[Contact Us Now!](#)