D2M

5 GOLDEN RULES OF INNOVATION

In this ebook, we will delve into the world of product development and explore the key principles and best practices to ensure a successful outcome and a return on investment. We will share stories illustrating the significance of keeping your product simple and avoiding adding unnecessary features and demonstrate the advantages of designing a Minimum Viable Product. We will also share the importance of proving your product's effectiveness and commercial viability before investing significant resources and explore the dangers of not properly assessing a product's feasibility.

We will also cover patenting your design and answer common questions such as when to patent, global patenting, multiple patents, and how to get market feedback without a patent. We will share valuable tips on protecting your idea and making it a successful, marketable product.

Designing with your customers in mind is key to creating a product that truly resonates with your target market. In this ebook, we'll share why you should always design for your customers and not yourself and provide insights on the importance of understanding your market and their needs, avoiding over-designing, and gathering valuable market intelligence.

Finally, we will discuss the issue of securing sufficient funding for your product and share tips on how to keep expenses in check, avoid unnecessary spending, and secure investment before running out of money.

In this comprehensive guide, we aim to provide you with the tools and knowledge needed to successfully bring your product to market.

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CHAPTER 1

In this chapter, we will delve into the importance of simplicity in product design. Through a compelling story, we will illustrate the benefits of creating a Minimum Viable Product and how it can lead to successful product development and launch. By avoiding unnecessary features and keeping your product simple, you can ensure its success and avoid potential pitfalls.

It's easy to fall into the trap of trying to create an overly ambitious product that does everything, and lots of our previous clients have fallen into this trap.

This story reveals how we encountered this issue with a pushchair design a few years ago. Initially, our prototypes were well-received at an international trade show and generated many orders from distributors worldwide, despite the product being relatively expensive.

Our client had successfully secured funding for the project through multiple rounds of investment and had arranged for the necessary tooling and manufacturing setup to commence.

However, they later decided to add more features to the product. They lost control of the costs, didn't focus on their core USP and as a result ended up with a product that was 24% more expensive than the distributors and retailers had agreed upon.

ADDING THESE FEATURES RESULTED IN AN OVERWHELMING NUMBER OF FUNCTIONS FOR THE PRODUCT, AND AN OVERWHELMING AMOUNT OF DIFFERENT MARKETING MESSAGES, INCREASED PRODUCT WEIGHT, ALL ON TOP OF AN INCREASED PRICE POINT.

Our team disagreed with the client's decision to add more features but could not convince them otherwise. As a result, six months later, most of the pre-orders were cancelled. Distributors wanted the original product they had seen at the trade show, at the lower price and without the extra features. This ultimately led to poor sales, financial loss and failure of the project.

The important lesson from this experience is to stick to a Minimum Viable Product approach. It's crucial to gather feedback from the target market, distributors, and retailers and to listen to it. Additionally, it's important not to overload the product with too many unique selling points, to take advice that will help reduce manufacturing costs while maintaining the core idea and to explore cost-effective off-the-shelf parts.

The goal should be to create an excellent, durable, and appealing product with the minimum features necessary to be commercially successful and establish a foothold in the market.

One client who took this approach and succeeded was Mark Stewart, CEO of Stewart Golf, with their R1 Push Golf Trolley.

Stewart Golf had a push golf trolley on the market but was not satisfied with the profit margins it was generating. They wanted to launch a new push trolley and approached us for help. They had already designed a folding mechanism and had experience designing similar systems, but they needed our expertise in product styling and ergonomics.

Our agency, D2M, understands that every project is unique and creates a tailored plan for each one. So, we took the time to understand Stewart Golf's goals and aspirations for this new product development. They wanted a design that could be hand-assembled in the UK to reduce manufacturing costs, increase profit margins, and create a unique product that would open new doors with international distributors.

To achieve this, our team created beautiful concept designs, detailed CAD models, and several prototypes, each building on the last to improve the design. After a year of hard work, the new push trolley was launched and received critical acclaim. Most consumers don't know that it took five different prototypes, multiple factory-made samples, and a design engineer on-site at the factory in China for six weeks to make it happen.

Despite the challenges, we remained focused on the core vision and avoided adding unnecessary or costly features that the target market didn't want. As a result, the product sold well, the financial gains funded further NPD, and Stewart Golf subsequently launched two more successful products.

CHAPTER 2

In this chapter, we will examine the critical importance of thoroughly evaluating the feasibility and potential success of a new product before investing in its development. Through real-world case studies, we will explore the dangers of rushing into production without proper assessment and the benefits of conducting a comprehensive evaluation, covering everything from projected costs and time-to-market, to returns on investment and tooling expenses. The reader will gain valuable insights on how to prove the technical and commercial viability of a product, as well as its market appeal, and the crucial role that engineers and manufacturers play in the development process. This chapter is a must-read for anyone looking to navigate the complex and challenging world of product development and achieve a successful outcome with a strong return on investment.

First, I will share a cautionary tale of someone who failed to properly prove their product before investing heavily in its development.

We had a client approach us with a design for a pull-along wagon. The design included an impressive suspension system and promotional animations highlighting its off-road capabilities. At first glance, it seemed like an exciting and innovative product.

However, the client's request for a prototype raised some red flags for us. It was concerning that they already had a design but needed us to create the prototype. This made us question why the designer couldn't prototype it themselves and why they were commissioned in the first place if they couldn't. We have a policy of being able to build everything we design, utilising our 2500 sq. feet of workshops, tools, textiles, and hard goods. Even if certain parts need to be sourced from trusted suppliers, we have the capability to assemble any consumer product prototype.

We were gob-smacked!

We were shocked to learn that they had already invested £300,000, and all they had was a CAD model and needed us to prototype it. It turned out that they had been persuaded to make costly tooling to produce the design before they had even seen a prototype. Unfortunately, it did not work, and the client had it redesigned by an automotive engineer.

When we pointed out how it could be improved, they could not make those changes due to a lack of funds; they only had enough for a prototype. Despite all the challenges, our expert team of senior designers was able to build it, but as we had anticipated, it needed major improvements. Unfortunately, they failed to raise further investment, and the project ultimately failed. We still feel remorse for them. The key takeaway from this situation is to always prove the effectiveness of a product before investing a significant amount of resources in its development.

Another important point to consider is building your design as inexpensively as possible to test its functionality. One cost-effective way to produce a prototype is by using parts from existing products.

We often create basic physical models for clients and advise them to test them, use them, break them if necessary, and, most importantly, see if they work. Clients have often made significant changes to their design after testing a working version themselves. The prototypes may not be visually pleasing, but they effectively prove the concept works, allowing you to focus on aesthetics.

Once you've proven that your product works as intended, the next step is demonstrating that it can be produced cost-effectively. This is crucial to know early on in the development process rather than realising it later after investing thousands of pounds.

I also want to share another case study of a client didn't know where to begin with the many ideas for new products they had come up with. We assisted them by conducting a feasibility assessment of the different concepts.

This assessment included the following:

- Analysing the projected costs for development

- Estimating the time required to bring the product to market

- Assessing the potential returns on investment

- Evaluating the expenses for tooling

- Identifying the project with the lowest risk

- Determining the project most likely to succeed and starting with that one.

It is important to consider sales at the start of the development process rather than waiting until the end. Many people become too focused on materials, colours, and other technical aspects without considering the financial aspect. To ensure a successful project with a return on investment, it is best to start with the commercial aspects and then work backwards. This is because we are eager for the project bring a return on investment and ultimately becomes a commercial success.

WHY?

Because, selfishly, successful products leads to potential future opportunities to work with the client on developing upgraded versions or new products. We are also passionate about helping people succeed with launching their new products and we get a real buzz out of it!

With this risk adverse approach in mind, after conducting a feasibility assessment and selecting a project, we moved on to concept development and created basic physical models. We also conducted market research with the client's team and target audience to ensure the product's appeal. We then demonstrated the technical feasibility, ensured it could be produced at the intended cost and conducted research to prove its commercial viability. This comprehensive approach helped us to confirm that the product would be successful.

All this work happens in the initial commercial feasibility stage, which is crucial for the project's success. Unlike other design agencies that only develop products for visualisation, D2M has extensive experience developing products that go into production. We can cost a product early on and provide budgetary numbers for manufacturing setup, including tooling and unit cost. This information allows you to determine the project's commercial viability before investing in expensive prototypes. This is how we manage risk during the development of an innovative project.

After successfully proving the project's commercial viability, we developed CAD models and prototypes and engaged in detailed discussions with the manufacturer. This step is crucial, as it allows you to involve the engineers responsible for designing your product's tooling and production process right from the early stages of development.

This step may seem obvious, but designers often work in isolation, disregarding the other individuals involved in bringing a product to market. With this project, we completed the design and oversaw the first production run. We celebrated the arrival of the first container of products in the UK with a bottle of champagne. This moment is truly rewarding, as it represents the project's culmination that began as an idea in the shower.

CONCLUSION

In conclusion, these case studies demonstrate the importance of proving a product's effectiveness and commercial viability before investing resources in its development.

Now that you understand the basics of this rule let's expand on it:

- Prove that the product hasn't been patented already.

- Prove that the product works by assessing its Technical Feasibility.

- Prove that the product can be produced cost-effectively through Commercial Viability analysis.

- Prove that the product will sell by conducting Market Research and Focus Groups.

- Prove that the product is patentable by getting a Patentability Opinion.

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CHAPTER 3

In this chapter, we will explore the topic of patenting an idea and address common questions and concerns. You will learn the importance of: obtaining a patent before beginning the design process; choosing the best time to patent the idea; considering the options for global patenting; securing multiple patents and getting market feedback without a patent. The chapter will also provide real-life examples of the challenges of designing to a patent and the advantages of seeking expert assistance in the patenting process. With its valuable tips and insights, this chapter is a must-read for anyone looking to protect their design idea and turn it into a successful marketable product.

The first question that often comes up on Dragon's Den is "Is this protected?". And it's a fair question, as many of our clients are very concerned about patenting. However, there are some pitfalls to keep in mind. For example, when should you patent? Should you go for a global patent or multiple patents? How can you get market feedback without a patent? And how do you find a good patent attorney?

At D2M, we have a fantastic network of reliable and trusted patent attorneys, having worked alongside them on multiple projects for many years. We have seen many people approach us who have already spent thousands with a patent attorney to protect their idea, but often the patent doesn't represent what is required for the idea to be a marketable product.

It can often end up as a tail wagging the dog scenario, where the client continues to spend thousands of pounds designing to their patent, even though it makes the end product more expensive or results in an inferior product. The main problem is, even if they do launch the product successfully, it won't take very long for someone else to launch a better version that is far cheaper, lighter or easier to use because they haven't been restricted to shoehorning the design into an existing patent.

We have seen this happen with an innovative glove product that came to us several years ago. The client had been trying to get a product to market for a few years and had already spent £30,000 protecting his product around the world with patents. However, the prototype made by another firm didn't work as planned and he came to us to have some pre-production prototypes made. We scaled back his plans and said that we would do a minimum-cost-approach to make a basic physical model to see if, with our suggestions, we could make it work.

We completed the basic physical model a few weeks later, but it just wasn't right and didn't work as intended. We then made another prototype of our design and presented both options in a meeting. The new design we presented worked extremely well, but the client was still unwilling to proceed with a design that was different from the patent.
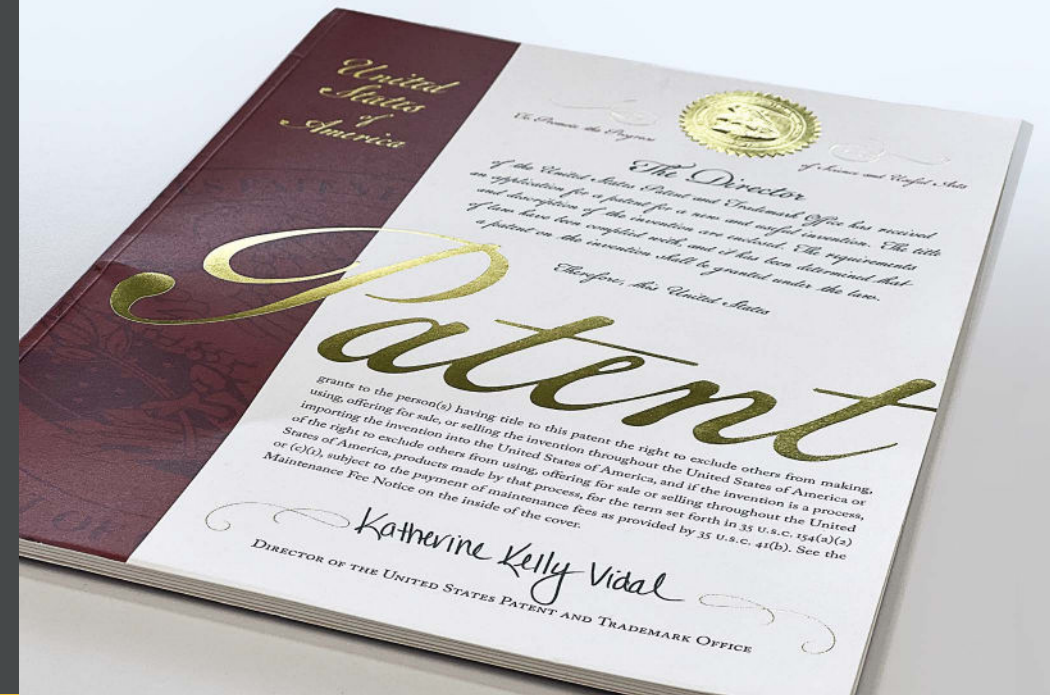
This is why at D2M, we always ensure the products we design are fully designed for manufacture. It makes sense to patent early to get your flag in the ground before someone else comes up with the same concept, but you need to be aware that the concept may change and need a new patent. Initial patent protection can cost a few thousand, but it then buys you enough time to prove the concept works before needing to spend larger amounts of money.

Once you've filed the patent, it's important to get on with the development and testing. This gives you plenty of time to work out what you actually want to protect. Always be aware that you might need to file multiple patent applications if you file early. And it's important to note that protecting your patent once filed is not difficult or expensive. A number of our clients never protected their concept as they stated that they could never afford to defend it. However, you can use a patent, registered design or trademark to defend your market share from copycat products completely free!

# SEE THIS VIDEO TO FIND OUT HOW

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CHAPTER 4

In this chapter, we will focus on the key principle of designing products with the customer in mind. You will learn why it is essential to prioritise customer needs and preferences over personal ideas and opinions. We will delve into the importance of understanding the target market and their needs, and explore how over-designing can result in high prices and reduced market appeal. The chapter will also provide valuable insights on gathering market intelligence to inform the development process and share real-life examples of how companies have successfully put these principles into practice and achieved commercial success. Join us as we guide you on a journey to create products that truly resonate with your target audience.

Designing for your customers is crucial for the success of your product. It's easy to fall into the trap of designing to your preferences, but it's important to understand your market and their needs first. Use that understanding as your guide in the design process.

Determining which features your customers are drawn to and which add unnecessary costs is important. Avoid over-designing, as this can lead to a high price tag and too many features that can be difficult to communicate to your customers. Gather market feedback and focus on the core needs of your target market. This approach goes hand-in-hand with a minimum viable product strategy, but the minimum approach must still appeal to your target market.

Learning how your customers value a solution early can guide you in the development process and ensure that your product is commercially viable. There are ways to protect your intellectual property while gathering market intelligence, and seeking guidance can help.
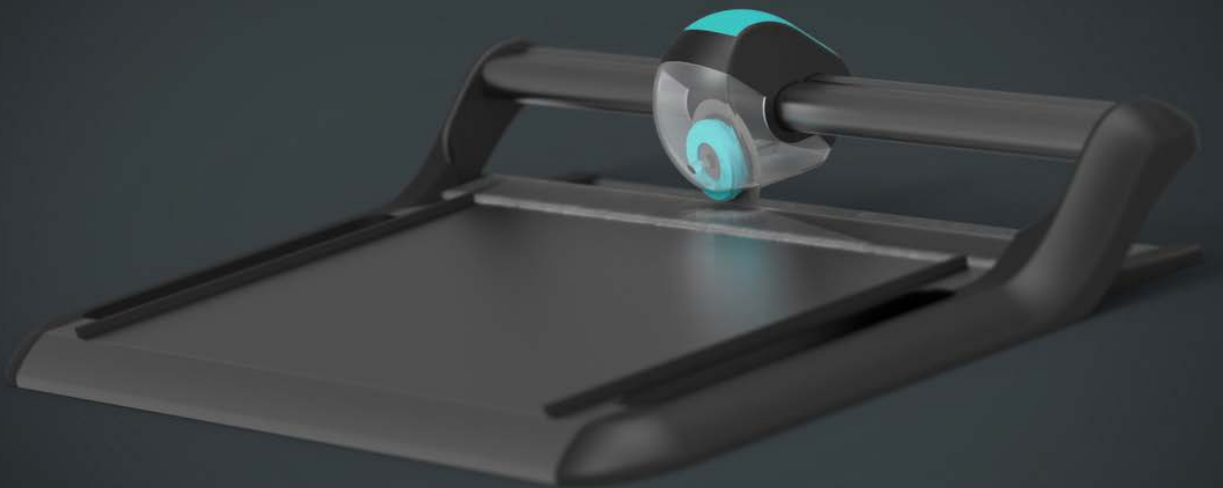
A good example is a previous client, WHI Safeguard, who came to us with an idea for lighting on public roads. We encountered a major challenge in the standards, but instead of giving up, they returned to their target customers (equipment hire companies) and asked them what lighting products they lacked. They realised that scaffolding lighting was a major gap in the market and, by working with their target customers, developed a range of lighting products, starting with a scaffolding light.

Significant communication with the target customers during the development process meant that the product was de-risked, and decisions were easy to make because they were driven by customer feedback. Once the product was launched, it was well-received because the core functionality was what the customers wanted, the cost was acceptable, and the product was exactly what they needed.

Avery Dennison is our biggest client to date. As a Fortune-500 business based in California, they employ 30,000 people worldwide and are probably best known for making labels in the UK. However, they also make a range of guillotines and paper trimmers which we were tasked to re-design.

What stood out to us during our work with Avery Dennison was their respect for their customers and their unwavering focus on meeting their needs. For example, the guillotines they sold were mainly used in schools, but their current range only cut 25 sheets in one go. They realised their customers had classes of around 30 pupils and needed a greater cutting capacity.

During the concept phase of the re-design, we came up with many innovative features. But Avery Dennison was brutal about eliminating some of these ideas, as they understood the importance of margins and weren't prepared to add cost unless their customers wanted it and were prepared to pay more for it. This was a huge lesson for us and showed that although big corporate companies aren't always the best at innovation, in this case, they were very good at keeping their customers at the heart of all decision-making.

I lost track of the number of focus groups they ran! However, one of our innovative ideas did make it through, a new blade guard that eliminated the need for large plastic pieces sticking up and ready to be broken. Avery Dennison later patented it, and it's now part of their product range.

In conclusion, always design for your customers and not for yourself. Understand their needs, gather market feedback, and make decisions that align with their values. This approach ensures that your product is commercially viable and well-received by your target market.

CHAPTER 5

Many great ideas fail due to a lack of funds, despite having a solid plan and a talented team. This is a common issue among start-ups, as entrepreneurs often misspend on unnecessary features, services, or tools. To avoid this pitfall, it's essential to keep a close eye on expenses and only spend what is truly necessary. Additionally, it's important to secure investment before running out of money.

One common misconception among start-up founders is that their project will cost less and take less time than it does. A good rule of thumb is to double the estimated cost and time for the project. This will bring you closer to the actual figures.

We've worked with hundreds of entrepreneurs on over 500 projects, and while many have been successful, an unfortunate number have failed. The top three reasons for these failures are:

- Running out of money before the product can gain traction.

- Losing interest and moving on to a different project.

- Bringing on the wrong team.

To avoid these pitfalls, it's essential to focus on raising capital, assembling the right team, and ensuring that the project is something you're truly passionate about and willing to commit to for the long term. Team issues can be devastating, as one bad apple can ruin the entire project.

One example of a successful project is the CouchCoaster, created by Barry. It may not seem like much at first glance, but this product now sells worldwide and generates over £1 million in revenue annually with minimal overhead.

PLEASE WATCH THE ACCOMPANYING VIDEO TO LEARN MORE ABOUT THE COUCHCOASTER AND BARRY'S STORY.

The key to success for any startup is keeping costs low while delivering a high-quality product. This can be a delicate balance, but it is one that Barry, the creator of CouchCoaster, has mastered. By keeping his idea simple and creating a minimum viable product (MVP), Barry could develop and test multiple prototypes before bringing the final product to market.

One of the most important lessons Barry learned was to watch every penny and only spend what was necessary. By doing much of the work himself and keeping costs down, he could secure investment and bring his product to market without running out of funds.

CouchCoaster is a prime example of a minimum viable product that delivers a premium user experience. The coaster features intelligent design elements such as glossy, soft, internally weighted silicone and a cleverly engineered base that provides optimal gripping and stability. Additionally, the coaster has a built-in mug handle slot and a subtle drip tray to prevent staining.

The success of CouchCoaster has allowed Barry to launch two more products in his range and sell them worldwide. He now turns over £1 million in products annually with minimal overhead (his business is still based in his spare bedroom!) This approach gives freedom and flexibility with Barry able to now work from anywhere in the world as he proved last year by spending a few months visiting family in Australia.

When protecting ideas, Barry's top tip is to secure a patent or trademark before sharing your idea with anyone. This can save you or your business tens of thousands of pounds in legal costs and protect your idea.

In summary, a startup's success can depend on various factors, such as keeping costs low, developing an MVP, and assembling the right team. However, by keeping these three common reasons for failure in mind and following the example of successful entrepreneurs like Barry, you can increase the chances of success for your startup.

Barry's idea for CouchCoaster was simple and focused on delivering a minimum viable product (MVP). However, this didn't mean he compromised on quality. The product was designed with weights on each side and tested on multiple sofas and chairs to ensure it would perform well.

Barry did much of the work to keep costs low, creating multiple rough prototypes to get the size right before bringing in outside help. Once the initial design and research were completed, Barry worked closely with his team to develop multiple prototypes, iteratively refining the concept.

CouchCoaster boasts several intelligent design features that set it apart, such as glossy, soft, internally weighted silicone and a cleverly engineered base that provides an optimal gripping surface that stabilizes and conforms to the shape of almost any sofa or chair arm. Additionally, a reinforcement insert keeps the drink holder rigid, upright and secure. The coaster also features an in-built mug handle slot for traditional tea and coffee cups and a simple adaptor for smaller drinks. A subtle drip tray also prevents minor spills from staining the sofa.

Despite being an MVP, CouchCoaster is a premium product that commands a reasonable price while delivering a great user experience. The product is now sold worldwide, and Barry has even launched two additional products in his range. To learn more, check out the blog post.

And now, for Barry's top tip on protecting ideas: This advice can save you or your business tens of thousands of pounds in legal costs.

Barry knew that his product, the CouchCoaster, would be susceptible to knock-off versions once it hit the market. Instead of spending a fortune on legal action, he took a different approach. When copies of his product started appearing on Amazon, he contacted the platform and provided them with proof of his patent. Amazon promptly delisted the infringing product, and Barry has continued to do the same with other retailers.

This method saves Barry the cost of legal action and puts pressure on the copyists. Many retailers do not want to be associated with infringing products and will delist them quickly, causing the copyists to move on to a different product. Barry's strategy has proven effective, and he believes the couple of thousand dollars he spent on patents was the best investment he made for his business.

CONCLUSION

In conclusion, this ebook has provided a comprehensive guide to the world of product design and development, making it the ultimate resource for anyone looking to bring a new product to market. From the importance of simplicity and feasibility assessments, to the critical role of design patenting and customer-centric design, we have covered all the key elements necessary for success. With real-life case studies, valuable tips, and expert insights, you will be empowered with the knowledge and tools needed to confidently navigate the complex and challenging process of product development.

However, for those who are looking for a more hands-on approach, we would like to extend an invitation to consider working with us at D2M. Our team of experts have years of experience in product design and development, and are dedicated to helping clients achieve their goals and realise their vision. Whether you need assistance with feasibility assessments, design patenting, or customer-centric design, our team has the skills and expertise to guide you to success.

So, if you want to bring your product to life with confidence and maximum impact, we encourage you to reach out to us at D2M. We are here to help you make your vision a reality.

BOOK A CALL WITH ONE OF OUR EXPERIENCED DESIGNERS:

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