Chapter 1: From Daydreaming to Technology Businesses

Why Start a Technology Business?

I've spent decades building and working in technology businesses. For me, it has been a wonderful and fun experience. If I had to do it all over again, I might change a few of my business decisions, but I wouldn't do anything else different!

It's my goal as a serial entrepreneur, who others have deemed as being 'successful', to share with you my experiences. All my ventures have been started by daydreaming. When I was young, I loved to daydream about what could be possible. I would see opportunities and apply my daydreamer's mind to it, and create various possibilities about what could be done. Interestingly, while money was important given that I grew up in a poor family, it was never the most important thing to me; it was seeing what I dreamt up coming to fruition that was the primary driving force. Thankfully, that was coupled with the need to make money which, in a way, funded my daydreaming and tinkering.

And in all these years of seeing innovation at close quarters, I've learnt that starting a business is about creating a need or solving a problem. I had a natural ability to see problems and daydream up solutions for those problems that I saw. I also daydreamed about how, from that solution, a whole business would spawn.

I would say to budding entrepreneurs that there's always the temptation to get so attached to 'building a better mouse trap' that you lose sight of the customers' needs and problems. That is why I always advocate starting by identifying a problem in the market place.

In this book, I will share a lot of my personal experiences, rather than solely base it on theory, to help get my points across. Remember, my goal is not to impress you, but to give you my experiences from the school of hard knocks, so that you can learn and profit from them.

So why start a technology business? In my opinion, a technology business is exciting because ideas can be quickly scaled up. A website meant for inter-college communication started by a bunch of Harvard roomies has more than 1.4 billion monthly users today. There is a lot to Facebook, but at its core is an idea that exploits the fundamental human need to communicate.

The key, I believe, to creating a good technology business is to ask yourself this question: 'Do you have an idea that looks at an old problem in fresh ways? An idea that finds new solutions?' Allow yourself to daydream up creative, crazy solutions. Don't judge what comes your way, just note them all down. By allowing the creative flow of daydreaming, you can come up with powerful ideas that can be the seed of a great technology start-up business.

In the eighties, after college, with my training in programming, I started looking around and realised that mid-range computers were the current 'big thing'. People were moving from the giant mainframe computers to mid-range, more affordable computing in those days. So we trained a lot of people who could build applications using a fourth generation language called Powerhouse.

Then I talked to the sales people in the industry. One of the things they said was that they wanted to build a document of everything they had done. I immediately saw an opportunity. At that time, I was a rookie at Singapore Computer Systems (SCS). I spent some time daydreaming as to how we could seize this opportunity. I dreamt up a way we could actually create a solution that could do all their documentation for them. I went back to my General Manager and said, "Look, I think I can build products." Perhaps out of curiosity, my General Manager actually said yes to my initial idea.

I wrote (dreamt up) a business plan, and I was confident we could sell the solution. I was allowed to hire more people. In about four to six months, I completed a working prototype and brought that to market. My daydream had become a reality.

While setting up a business, you might dream of becoming rich and famous, and there is nothing wrong with that — but there must always a problem-solving element to it. Otherwise your dreams will be merely castles in the air.

Are Your Motives Right?

I've always dreamt of making things and selling them. I suppose the one thing that attracts youngsters today is the same thing that attracted me — an ambition which says, "I want to build something."

You have to start somewhere. I have always tried to build something at every opportunity I got. As an undergrad in the early eighties, I tried to get people to pay me to build something and along the way I started building applications using Dbase 3 on desktop computer for clinics to manage their inventory, generate label for drugs, keep their patient records — that kind of stuff. That was simply because that was a real problem clinics had; I saw the problem and came up with a solution. It became a relatively good business that gave me a good lifestyle in college.

When I'm creating something during my 'daydream times', the basis of my dreams is solving a real problem. You may not have to always clearly articulate your motives to investors. But behind every great business opportunity is a motive that says: "I will try to build something". It's important to get these basics right. While this may sound like common sense, very few technology start-ups actually go down to the ground and do research about their customers. They simply think of a product and go and build it. The painful part is discovering months or years later that people already have a solution to that problem, or are not interested in solving the problem due to company politics or something else.

Do You Have the Skills?

I think it is important that people ask themselves, "Am I the type who can operate a business or the type who can start a business?" Because the skills are actually quite different. A key question hovering around a new technology business is: Can you lead a team? Team dynamics are visible. Are people enjoying themselves being part of your team or are they rebelling? I can easily spot that. Are they prepared to die for you, so to speak, or are they prepared to walk out on you?

If it is hard to find people who have complete faith in their leader, then chances are the new business won't go very far; because this is a stage when there is no time to motivate or mentor anybody externally. People must move forward and put in long hours. Once you can crack this, you are going to convince more people to put money behind you.

Be aware of your core capabilities, your natural strengths. These are not easily replicable. Investors will want to see that 'spark'. Some guys know how to convince people and overcome obstacles. Others are very meticulous, and don't say 'no', but get the work done. Be clear about what you are bringing to the table.

For me, I know that my strength has always been in daydreaming and coming up with creative, workable solutions to problems. My core area of expertise has always been in databases and data analysis. In my 30+ years of business I have always stuck to my strengths and found people to help me in areas that I am weaker in. Gain a self-awareness to know where your strengths and weaknesses are. Focus on utilising your strengths and look at outsourcing areas that you are weak in. In some cases, you may want to get the necessary training to overcome the areas you are weak in but are essential to the future of your business.

Are you prepared to support your business?

When I'm looking for funds for a new venture, here's some of the questions I ask myself: When do I start asking for money? I put myself in the shoes of the other person. When will that someone be willing to part with his or her money? When will I agree to give my money to someone? This gives me a good estimate.

The people who you trust the most are most likely to fund you first. This means friends and family. If you cannot get past people who trust you unconditionally, then your idea probably won't fly and you really have to go back to your drawing board and address their objections first. Assuming you are past that point, start developing your idea further, till you reach a stage where you need to reach outside your friends' circle for money. These other people will tell you: "At least show me a customer, or at least show me a prototype, or at least show me some market data."

The key is to be ready with the answers. I always do my homework. And if they still say 'no', then I ask for the reasons. Never leave without knowing why. Is it because this idea doesn't make sense to them or is it that there are ten other people already doing this? If it's the latter, it's not necessarily a closed chapter; I just have to find what I can offer that is different from the ten people - my USP, in other words. USP stands for unique selling proposition. It is what makes you different to everyone out there.

To create your USP, you will need to ponder upon this question: *"Why should someone buy from me instead of from anybody else?"* The more thought you put into this, the more unique reasons you can come up with, and the stronger your USP will be. In fact, set aside some daydreaming time to dream up how you can be unique. Better still, dream up how you can be so unique that you are remarkable, and people talk about you and your product with excitement.

Do You Need to Quit Your Job?

I always believe that if you can work within your means on weekends and evenings with like-minded people to solidify the idea, then that should be the way to start. Don't make the mistake many novices make. They quit their full-time positions and end up having lots of stress due to financial pressure. Eventually they give up on their idea. Do the math beforehand. How much savings would you need to sustain yourself and your family for, say, one year?

There's a slight difference between 'I wish I could invest but I have no money' and 'I think the idea works'. It boils down to demonstrating your conviction. Say, I'm asking money from a General Manager of a listed company. And he agrees. Now, to become General Manager the person must have got sufficient judgment to ascertain whether he's throwing money away or there's some chance that it will bring him returns some day. That is a good indication that your concept works if he or she says 'yes' to invest with you.

After this point, once you've got the initial funding, your first bite, you're already being paid now — so you don't have to do any other work. Forget your old job. Concentrate on the new business. So work on your concept on a part time basis, until you get some serious funding or generate sufficient cash flow from your business. Then focus on growing your start-up on a full-time basis.

The initial months of your new business are crucial. You and your team will work late nights from a tiny office. Tempers will fray. The future will be uncertain — but full of possibilities. It is in these heady months that your business will take shape. Give yourself that chance.

The Importance of Daydreaming

For me, I believe that daydreaming has brought me all the successes that I have as an entrepreneur. The exciting part is, you don't have to have 30+ years of experience in daydreaming like I do to be a good daydreamer. In fact, most young people and school-leavers are naturally great at daydreaming. They have dreams about how their lives might turn out and what they want to achieve.

The sad thing is that from being young, we are conditioned that daydreaming is bad. Perhaps you might have got scolded or reprimanded for daydreaming. You might even be told that you were wasting time. Possibly, your peers might even have laughed at you in class while you were daydreaming away! However, times have changed. The 'doers' are the ones who are increasing getting less money and more stressed – and, in reality, creating less value for society and the world at large. Dreamers are the ones who seem to be creating change in the world, dreamers are the ones who are the most highly paid, and they are probably enjoying life a lot more than the 'doers'.

Elon Musk and Richard Branson are daydreamers; they are changing the face of business. Lee Kwan Yew was a dreamer, he changed the fate of a small, backwater into one of the world's most advanced nations.

Dare to daydream. Dream of ways you can solve problems and set to work on them. This is the foundation and formula I have used and it has never failed me. So before I share with you my journey, lessons and many insights, I want to encourage you to release that daydreamer within you again. The daydreamer in me has helped me create many successful start-up businesses, and it could do the same for you. Perhaps it could help you create bigger and better businesses than I ever did. If that eventuated, then I will have achieved my dreams with this book!

Chapter 2: :Where to Find the Money for Your p

The Basics: Bootstrapping Your

The money: it's probably the question on every new entrepreneur's mind.

Here's my take on it - you shouldn't let the perceived lack of money stop you from daydreaming your start-up. In fact, the opposite is true: the more time you daydream and get clear about your start-up and the business, the more likely you will attract money. That's the big picture, but let's get into the nitty gritty of it.

After spending years in the business of starting and mentoring businesses, I know exactly what it takes to launch a start-up. While a great business idea will go a long way in attracting investors, you often need to get the business running on a small scale before investors start showing interest. Since you can't rely solely on your own savings, you need to find creative ways to fund your business.

To be sure, personal savings constitute an important source of funding for many start-ups, but you need to make sure you have taken care of you and your family's basic needs for at least one year before digging into your savings. You don't need the distraction of unnecessary financial pressure that could well kill your start-up.

Bootstrap and develop your prototype as much as possible using your own time and money; do it on the weekends, and at night if possible, while keeping your day job. The reason I suggest this is because the more developed your idea and prototype, the more likely you are to attract seed capital and investors for your project.

In addition, you do not want to sell yourself short. The more developed your prototype and business model, the more value you can command and the more funds you are able to raise in the next round of your capital raising. Bootstrapping and taking your business/prototype to the next level could mean a massive difference in the valuation of your business and prototype. So the longer you can bootstrap, the better it will be, both for attracting investors and also for the valuation of your start-up.

I'm sure you have heard of stories of entrepreneurs bootstrapping on credit card debt. While I wouldn't suggest this path, it really depends on your risk appetite and your life circumstances. If you are 50 years old with little savings, I really would not suggest doing this. However, if you are 25 with no family, live at home and can always fall back on a job, this may be a path you might want to choose.

When you are ready for the next stage, that's where seed capital comes in. Seed capital is usually a smaller amount of money to fully develop your idea and prototype to a point where it is working. The initial 'seed' money does not guarantee success, but it will give you a real shot at taking your business to the next level. A lot of young entrepreneurs struggle at this stage and one can only guess how many great business ideas don't take off because they lack that initial funding boost.

The good news is everyone from the government to angel investors are looking at new business ideas with greater enthusiasm today. So you have options to choose from while searching for funds. Of course, you will have to see what works best for your business. *The truth is, there's a lot of money out* *there, much more money than ideas.* That's why you need to daydream, to get clear about your venture, to attract that money. Without clarity and communication, you will not get the money required for your start-up.

You may just want to weigh the positives and negatives of each option before jumping into it. I am giving a summary of the options and my thoughts on each so that you can weigh each option objectively for your venture. Government Grants and Loans

Does the state really help folks who are starting businesses? Even I was skeptical once, but in the last five years, things have changed significantly in most advanced economies.

It might sound too good to be true, but governments actually provide grants for starting businesses.

Governments grants generally do not have to be paid back - essentially it is 'free money'. However, they may involve certain conditions that we will discuss later on. Government loans on the other hand, generally need to be paid back at a certain time. However, the criteria for the loan and the payment terms are generally more favourable than banks.

First, why do governments give out grants? The reason is simple: they give out grants to start-ups because they are hoping that some of those start-ups will become viable businesses, to provide employment to their citizens in the future. In addition, they hope that those start-ups will one day contribute their fair share of taxes when they grow bigger.

Australia, which has various grants and concessions for IT start-ups, understands the importance of ICT start-ups to a country. According to a 2013 Google Australia PriceWaterhouseCoopers study, the Australian technology start-up sector has the potential to contribute more than $100 billion (4 per cent of GDP) to the country's economy by 2033.

Getting a grant may not be all that easy, but the key is to give it an honest shot. The US federal government, for instance, gives a range of grants in various categories. One of them just might fit in with your business idea. If you've worked out your plan in some detail and it's a niche business proposal, your chances to land a grant just got higher.

Many Asian countries like Singapore have good grants and support for start-up businesses. Often they target industries where they see good potential, such as ICT and biotech. However, there are grants for all types of industries.

Before you apply for a grant, you need to make sure that you are applying for the right one. There are grants with different criteria and are looking for different things. Study and understand what they are looking for before you submit your proposal. It also may be advisable to engage the services of a government grant consultant, as they would be a lot more familiar with the criteria and process of each grant. They could save you a lot of time and effort and, at the same time, maximise your chances of success.

Now for the considerations you will need to take into account when applying for a grant. Firstly, you will need to consider whether you want to go through with the red tape and paperwork of applying for a government grant, and whether you want to work with the conditions imposed as a result of the grant. In some cases, you will need to be tied down to a certain country or have certain deliverables in a set period of time. In many cases the government grant program may dictate that you spend the money in a certain way, not necessarily the way that you may want to. You simply have to ask yourself if the grant is going to be worth it in the long term if it is going to limit your business's potential for growth.

So make sure you check the various limitations and restrictions upfront if you want to go down the track of getting a government grant to fund your start-up. The good thing about most government grants is that they do not expect any equity or repayment on the money you get from them. That is a huge positive as you may not want to have the pressure of a loan or investors demanding a return from you.

Remember, if the government says no to your application, take it as a learning experience. Normally their panel will have experienced people who can provide invaluable feedback for your product and your business approach. Make sure you incorporate this into your future development and business. Don't let a 'no' be the end of your start-up; it's often an opportunity to make tweaks and improvements. In addition, it sometimes is not your idea that is at fault. As I mentioned before, government grants usually have certain parameters and criteria that they need checked off before they can be given to you. So often it doesn't mean that your idea is not viable, it could simply mean it doesn't meet their criteria.

Family and Friends

I've always believed that the people who trust you most are most likely to willingly part with their money first. Yes, I'm talking about your family and friends — they are the ones who are most likely to believe you when nobody else does. They are the ones who will have the greatest tolerance for weaknesses in your business proposal. So, they're a good place to test the water.

And if you find yourself unable to fully answer the questions of people with whom there is zero trust deficit, then it is time to re-look at your business blueprint. Or, to put it more bluntly, if you cannot get past family and friends, then your idea probably won't fly and you really need to spend time more time daydreaming. I'd like to stress, though, that this is a process. You get some money from friends, do some work, show them the work, get a little more money. You don't have the luxury of waiting it out till that big funding arrives. Work with what you have and start building your business before asking for more.

Often people ask for a big amount upfront, rather than staging their funding. If you are able to deliver what you promise on your small amounts, the likelihood of getting more funding from the same people increases exponentially. This applies to all types of investors.

The one thing to consider is to make sure you have a proper agreement drawn up with them, and explain all the risks and downside to them. The best friends and family investors are those who are prepared to lose their money. However, I personally think you should also make sure they are not investing all their retirement savings with you; after all, at the end of the day you do not want to lose any friends or family in the event that something goes wrong. Furthermore, you do not need that burden of knowing their retirement depends on you…it's just unnecessary pressure. As a start-up entrepreneur, you have enough things and worries to deal with on a daily basis. You simply do not need your uncle to be complaining to your partner that he is worried about his investment and wants his money back.

Angel Investors

At some stage, you may have to make a pitch to investors with deeper pockets. This is where angel investors come in play. Angel investors are generally rich individuals who are looking to get a slice of the 'next big thing.' They are often ex-business people who have sold their businesses, and want to apply their finances and knowledge to invest in start-ups, in return for a reasonable slice of equity in your business.

As I said before, you ought to do this after a prototype of your business is already up and running, and now you're looking to scale it up. But think of angel investors as one among a series of investment opportunities which are out there to be exploited.

When choosing an Angel investor, I suggest to not just look for money. Look for 'Angels' with relevant experience and contacts in your industry. Sometimes the contacts and experience that they have are worth more than the money they invest. One simple introduction to the right person can mean a complete transformation of your business.

Once you've moved beyond your circle of relatives and friends, people will ask you: "At least show me a customer, or at least show me a prototype, or at least show me some market data." It's okay if you can't satisfy them. Never get disappointed by rejection. Business successes are often built on a series of rejections. But never leave a meeting without clearly asking — and knowing — why your pitch didn't make it. No textbook will teach you this invaluable real-life lesson.

How does daydreaming come into play here? Well, it's my experience that with angel investors, the clearer and more passionate you are about your venture, the more likely you are to attract them. This is because Angel investors will often invest in the jockey rather than the horse. They may evaluate you as a person more than they evaluate the idea. If you show clarity and a well-thought out plan, this will give them the confidence that you are potentially a good bet.

So spend time daydreaming not just about what is possible, but what could go wrong and how you would handle those setbacks.

Crowdfunding

As a 'new kid on the block,' crowdfunding is fast gaining popularity as a means to fund start-ups. Australian firm LIFX developed a smart home device — long-lasting, Wi-Fi controlled lights which are brighter than regular bulbs — and took the crowdfunding route through the site Kickstarter. About $1.3 million was pledged in less than a week, and investors added another $2.1 million.

There are many more success stories on crowdfunding platforms. Funding projects can be as little as a few hundred dollars to over a million dollars. The positive thing about crowdfunding projects is that you do not need to sacrifice equity, nor do you need to pay back any money. However, you will need to fulfil the promises of the incentives that you have agreed to.

In crowdfunding, a large number of people may make online pledges to pre-buy your product or give donations. There are different models of crowdfunding, and you should find out what suits your project and what kind of projects attract people's attention.

The two major sources of crowdfunding are Kickstarter.com and Indiegogo.com. Kickstarter has been around longer and has more funders. However, the downside to Kickstarter is that they do not give you the money unless the funding has reached the minimum milestone. They will return money to investors if the total funding is below that. Their logic is that the start-up will not succeed if it doesn't reach the minimum funding requirement.

For Indiegogo, they will give you however much money you raise from the campaign. The shortcoming of Indiegogo is that they have less funders than Kickstarter and generally is more suitable for smaller amounts of funds.

To have a successful crowdfunding campaign, here are some guidelines.

a) Look at successful campaigns and what they offered as incentives for various funding levels. Try and emulate that.
b) Get your friends and family to get the ball rolling…if there are zero funders for your campaign it is unlikely that anyone will donate money. Get your friends and family to start donating a few hundred or few thousand dollars to get some momentum.
c) For larger amounts, it is advisable to either spend money on ads or on a good media publicist (particularly if your product is very newsworthy). The investment will yield good returns for your crowdfunding campaign.

I'll be the first to admit I'm no expert at this type of funding. But at the time of writing this book I have tried to fund an AI Chess project through Kickstarter. While we raised over $11,000 it was way short of the total we wanted to get the project up and running. It was a good experience and we may adjust our approach and try it again.

To be honest, I do not know whether crowdfunding is a passing fad or will be here to stay. Currently crowdfunding is still popular at the time of publication of this book, so it may be worth jumping on this gravy train while it still is!

It's important to note that the platforms mentioned above are reward-based platforms for crowdfunding, ie, you get a reward or product for your investment. There are also equity-based crowdfunding platforms such as the Australian Small Scale Offering Board (ASSOB) in Australia and Crowdcube in the UK. On these platforms, you would give away share in your business in exchange for investment funds.

Stages of Fundraising

It is important for you to stage your fundraising into small steps. Most start-ups do not follow these steps and as a result, confuse investors and fail to raise the necessary money to get their business going.

Firstly, you have to establish and prove that there is a need for your product in the marketplace. You will need to confirm that the need is real through market research or market data. In other words, you will need to prove that people are going to buy your stuff!

Then when you raise money, make sure you are clear about what the money is going to be used for. Are you going to convert an algorithm into code? Are you building a prototype? The mistake many start-up entrepreneurs make is that they over-promise. They often think that investors want to see a return in the first trench of investment. However, professional investors look for milestones.

At the first stage they are often looking for initial proof that your concept actually works. So if they invest money at this stage, that is all they are looking for - don't try to deliver more than what is required. In fact, if you do that you will come across as an amateur and confuse the investors. More importantly, you won't be able to live up to your promises and lose the trust of your investors.

In the second stage, they sometimes are looking for whether the concept can actually be better or result in savings compared to the current solution in the marketplace. The money should only be used for this purpose, to prove your concept can actually work better than others out there.

Then in the third stage, you may be looking for money to prove that your product is deployable. You need to use the money to find out what it would take to deploy your product in a live situation. At the fourth stage, the money that you raise can used for deploying your solution in a live situation for testing. Finally, the fifth stage might be where you raise money so that it can be commercialised and marketed.

Just remember, at each stage you need to show clear outcomes and KPIs (Key Performance Indicators) of what you aim to achieve with the money that you raise. And your goal as a start-up entrepreneur is to make sure that you can deliver on the promises.

For example, one of the companies that I'm involved in raised $200,000 with over a million dollars valuation just for stage one and two. This money was raised just to translate part of their math formulae into software code!

So make sure you stage your money raising, don't raise more money than you need and don't overpromise on what you can deliver on each stage. By using this framework you will be able to have more success with your capital raising.

Conclusion

There are many ways of funding a start-up, but always start by bootstrapping and funding the project yourself. Be financially wise and take care of your family first…make sure they are not wanting, otherwise they can create a lot of unnecessary stress for you. Spend time to plan your finances. Ask yourself, "Can I live with the worst case scenario?"

If you can live with the worst case scenario, then it's time to get daydreaming! Daydream to get clear with your product and your venture.

Then take the next step by planning and creating your prototype, followed by one or more of the seed capital sources to get your next round of funding. Then consider quitting your job and going full-time once you come to this stage; because this is when things really start getting exciting!

Chapter 3: Knowing your market: Hitting The Market

"Without data, you're just another person with an opinion." - W. Edwards Deming

As a veteran in the technology space, I've seen good ideas fail because the guys didn't care much about market research. I myself learnt this the hard way on a few occasions.

So, before setting out to place your product or idea into the market, spend some time understanding the market. This is where concepts like market research, competitive research and live testing come into the picture.

Most of the time we read stories in the tech space about the many success stories, like Steve Jobs, Elon Musk, Mark Zuckerberg etc. It's really fantastic to be inspired by such entrepreneurs who have revolutionised industries, who all started with a big dream, a vision and literally conquered their industries and changed the world. But at the same time, this needs to be augmented by a strong dose of reality. The successes are often media darlings who are featured in various stories, magazines and books; however, what we don't see is the many 'tech-wrecks' that lie buried in the vast ocean of failures.

While failure should not be a fear that cripples your dreams, you want to plan for setbacks as much as possible. One of the key steps to ensure that your tech start-up will be a viable one, is this very important step of market research. Market research basically gives your daydreaming as an entrepreneur some grounding. Too often, entrepreneurs daydream but their heads are 'in the clouds'; they end up creating product with very little practical application. Market research acts as that 'grounding tool,' to bring those pillars from the ground to support your castle in the sky.

Don't be intimidated by the term 'market research'. I merely see it as a way to help prove that my concept works; and it is also a great way to refine my product for the marketplace, to make it more beneficial and useful for my customers. After all, technology should help make lives easier, and that's what market research helps you to do…to help refine your product so that it makes lives better and easier for its users.

Remember, the better and easier you can make life for your users, the more they are willing to pay you to use it. Think about how much the iPhone has made information, communication and entertainment easier for millions of people. That is just one product that helped Apple make unprecedented profits. Think about how much easier WhatsApp has made communicating with your friends and family. That's what your technological innovation should aim to do, even if it is just for a small local industry. You don't have to change the entire world to be successful. So where does one start?

Here is my simplified, 7-step suggestion for market research for technology start-ups. 1. WHO ARE THEY?

I always start with who is the market I want to create a solution for; because whatever you invent, for it to be sustainable, you need people to use it and to buy it. It's good to start with what is known as demographics - to know where they live, how much they earn, what job they are in, what gender they are and even what income level they have.

A good exercise for this is to create an 'Avatar' that reflects your ideal customer. Imagine you have a product like the smart wearable that can detect nutrient deficiencies. You might create an imaginary 'Avatar' for such a product and name him 'Peter'.

Peter is 45 years old and works as a high level sales executive at a multinational shipping company. His annual income is between $100,000 to $120,000. Peter is married with 2 kids. He is a fitness enthusiast who exercises 4 times a week at the local gym and also enjoys cycling with his friends on the weekends.

Peter takes vacations twice a year with his family. He values his health and well-being and invests a lot in supplements. In his spare time, he enjoys reading books and spending time with his children. His greatest fears are that he may die young because of a terminal illness and that his family will not be taken care of. He lives in a $1.5M condominium on the East Coast of Singapore.

By creating this 'Avatar' and spending time daydreaming what it would be like to be 'Peter', it will help you to more clearly understand and feel what your market feels. It can also help you to pinpoint what are their fears, aspirations and even the best channels to connect with your market.

I have found this to be a very effective yet simple way to connect both on a practical and emotional level to my market. By doing this, you will be able to develop products that more effectively help your customers.

2. DEFINE THEIR PROBLEM

Many failed tech companies start on the wrong footing. They start based on what they think is cool and chic. While that can sometimes work, a better foundation is to start with the problem that your target market or target users are currently facing.

When I started my first software business, clinics didn't have a proper inventory control system. That was the problem. They were using paper filing and things obviously would get lost and made information hard to retrieve. The problem was they didn't have a centralised place to store all the information, and there was no easy way to retrieve the information when they wanted to.

So if you were to put yourself into the shoes of a nurse or doctor that's running the clinic, you can imagine it would be quite a hassle running around trying to maintain inventory, keeping customer records and so on.

So the key problems I managed to identify were:

1) They were spending lots of time managing records and inventories manually
2) They were getting frustrated with all the paperwork that took them away from their core business.

By clearly identifying these problems in their business, I went ahead and wrote a basic software program that helped them to manage their inventory, print drug labels and manage customer records. My software made things a lot simpler for clinics, and helped them to address their practical and emotional problems. They could finally focus on what they do best…attending to their patients and making sure they got well, instead of wasting precious time and effort to maintain their records.

You can imagine creating the avatar as per Step 1 would help tremendously in Step 2 to help them define the problem. That's why I encourage you to spend lots of time daydreaming in Step 1.

Yes, I had a passion to create something back then, but I didn't just jump on the first idea I had…because if I had chances are it may not have worked out!

So as a tech entrepreneur, it is important for you to remember this…you are a problem solver. Make sure you snoop around and find a problem that you can solve with your technology before you go ahead and invest your time and money in it. Just to re-emphasise this point, the more clearly you are able to articulate the problem of your market, the better you are going to be at creating a product that's going to address their needs.

Here's some questions you may want to consider when defining your market's problem:

a) What keeps them awake at night, that they wished someone could help them to solve?
b) When they are at their dinner table, what do you think they would be complaining to their spouse about their work or life when they are having a heart-to-heart talk?
c) What frustrates them, what annoys them, what angers them? Find out what causes an emotional response with them and, if you have a solution for that, then you are likely to have a winner.

One of my investee start-ups created an AI based engine to interpret the results of social media campaigns of brand owners and suggest improvements to their future social media campaigns. It is almost like a robot adviser to digital marketing agencies and brand owners.

The challenge for them is to articulate this pain point to brand owners and marketing agencies who need to measure and improve their social marketing mix, to convince them of the merits of adopting this product.

Currently they are in the midst of revising their USP and gaining clarity around it. Even though they have a great product, their marketing will not be effective until they get clear about their USP. Similarly, investors will not be interested in this project until there is clarify in their USP

Once you believe you have adequately addressed the problem and defined it, you need to consider something else that's a very important, and often forgotten, third consideration:

3. DO THEY HAVE MONEY?

Yes, it's very practical and sounds materialistic, but the truth is you need to make sure that the people you are creating your software or tech product for have money. You might set off to save the world and create a super product that will make their lives 10x easier and more productive, but if the market you are targeting is not able to afford your product, then your start-up will not be successful.

For instance, you may want to create a home-use, water purifying equipment for poor people in remote parts of India and Bangladesh so that they can have clean water from wells. However, if your unit is going to cost US$500, they are unlikely to be able to afford it. So make sure the market you are targeting does have the disposable income to buy your invention. If you have determined your market does indeed have the money to buy your product, then there is an equally important consideration next…

4. ARE THEY WILLING TO PAY FOR YOUR STUFF?

Having the money is one thing; being willing to buy your product or software can be a totally different matter altogether. Here's where many tech products fall short, because they do all their research and find that the market they are creating the product for has the right amount of income and wealth, AND the product does indeed make their lives easier. But they get a rude shock when they realise that market is not willing to fork out the cash to buy their stuff.

The DAT (Digital Audio Tape) was introduced in 1987. In truth it was a really cool product which was able to record with tiny little cassettes that were more durable and had a longer shelf life than CDs. To top it off, they could record at qualities that were even better than CDs.

It appeared that they were the new super-format for music storage of the future. However, people were not willing to fork out the cash for it as they didn't really understand it. Furthermore, the music industry was also concerned about music piracy with the high quality recording format it was able to provide; hence this great technology ended up in the graveyard, rather than in homes.

Remember, sometimes the pain that your market has, they are happy to live with it. Why? There are many reasons. It could be because they can tolerate the pain of living with it.

When I launched my documentation system software, sales peaked when the EU decided that they were only going to import stuff from Singapore that had ISO-9000 certification. Part of that certification required documentation. Our sales skyrocketed because of this new legislation. This demonstrates that many businesses were willing to live without documentation even though it clearly would help their business, and many were unwilling to pay for it. The moral of the story is that you might daydream up a product or service that is clearly beneficial to your market, but yet many not be willing to pay for it.

This brings into play the next consideration.

5. HOW TECH-SAVVY IS YOUR MARKET?

Let me say at the outset that this is a touchy issue, and you need to handle it with care. As a technology entrepreneur, I've interacted with hundreds of people from various backgrounds, and one thing I've learnt is that the number of people who actually understand technology inside-out is rather limited.

The biggest danger is assuming your users have the same level of technological know-how as you do. Even simple things like downloading and installing an App can be a big challenge for some users. This is not to suggest that the inputs by those not tuned in to the technology are not important. In fact, they are extremely important. But it is good to know who is making what suggestion, especially when it comes to hardcore technology-related issues.

Many tech companies fall short in this by developing products that only their initial tech-savvy market knows how to use. But they fail to take into account the later majority of users may not be as tech-savvy as the first batch of users. By failing to adapt and take into account the later majority of users and their level of technological awareness, many tech companies have fallen short of their full potential.

There's a great book by Geoffrey Moore on this topic, titled 'Crossing the Chasm'. In a nutshell, what he says is that the innovators who will happily adopt your technology product are only a very small portion of the market; so to rely only on them buying your product is not good enough. You need to be able to reach the next stage of the early minority, which amounts to 13.5% of the total market. These people are generally younger and more willing to adopt new technology.

Failure to further innovate at this stage for the next segment, the early majority, which comprises 37.5% of your total market, will result in failure of your product in the marketplace. But if you manage to take into account the needs and requirements of the early majority, then you are able to 'Cross the Chasm' and see your product adopted in the mainstream market. Only then you are able to reap the profits and success for your tech product.

And yes, sometimes the product you create for the early market may be different for the mainstream market, to perhaps be more usable for the less tech-savvy users. This once again requires you to dream up features that make your product more user friendly for them.

6. DON'T FORGET YOUR COMPETITORS

In the start-up phase, it is very tempting to lock yourself in a dark room and emerge one day from it as a hero, with your completed technology in hand. Well, before you head into your dark room and build your prototype, I would suggest that you do some competitive research beforehand. It doesn't need to be a 20,000-word thesis, but by knowing what is currently out there, it will prevent you from coming out of that dark room only to discover that someone else has come up with the exact same product before you.

Logically, a good place to start would be the internet, just to see what else is out there. But just because someone else has a similar product doesn't mean you should give up. There is a good chance you can find a new angle, a little bit extra here or a small tweak there. But it is important for you to be different. It doesn't mean you have to be better…you just need to be different in a way that's meaningful to your market. It may be as simple as targeting a narrower niche market by adding a simple feature.

Just because Friendster was the first big social media site, didn't mean Facebook had no chance of succeeding. And similarly, it didn't stop Twitter, LinkedIn, Instagram, Pinterest and dozens of other social media sites from succeeding either. You can also learn from your competitors' successes and failures. If you have a very successful competitor, the chances are they are doing something right. So why not buy their product to experience what they are doing right? What is their packaging like? What kind of marketing material do they send out? How do they treat their customers? What are the key benefits they are trying to sell to you?

By being a customer of your competitors you will glean lots of useful experience that you can improve and modify for yourself, and make your business different from (and sometimes better than) that of your competitors. Use that information that you have gleaned to dream up something new, exciting and meaningful for your product.

Now that you've taken these 6 steps, it's time to do some live testing.

7. TEST YOUR PRODUCT OR SERVICE

The ultimate market research one should do is to do live-testing of your product. As they say, 'The proof is in the pudding'. So you should get your product into the hands of your market and see what they think.

In a new business, the hardest part is moving from the ideation state to building the prototype which gets you your first real validation. You are no doubt in a mood to carpet-bomb the market with your product or service. Don't. Take it to a small sample audience first. Gauge their reactions, take their feedback, and incorporate some vital changes if necessary.

When you actually implement an idea on a small scale, the possibilities start expanding. Recently, a guy came up to us with an idea that he was trying to build a messaging app based on location. Everybody in a radius of, say, five hundred metres would be able to message each other if the app was installed.

Now, this is an interesting idea. Why would you want to broadcast a message within a one-km radius? Would it have any takers? Frankly, I didn't know. But he said: "I'm going to run this trial on a university campus". And we backed him. How will it turn out? We don't know yet, but it is a promising idea and it has progressed to the testing stage. And that's a cool thing as far as I'm concerned.

Live testing is important. If it's a software, you want a group of users to get their hands on it and see if it's working for them. Does it give them a distinct advantage? Is it easy to use? If it's a new e-commerce education portal, let a group of students handle it for a couple of days. Perhaps they may want a couple of additions on the home page and more features. Of course, not every idea has to be taken seriously. But listen to every idea carefully. And if many people are annoyed with the same thing, you don't want to ignore it.

A questionnaire is generally a good way to get feedback. This is also your chance to see if all the back-end operations are working well and, in case of a website, if your team is able to update it at regular intervals without glitches.

Remember, customers don't know what they really want sometimes. If Steve Jobs had relied on consumer research and focus groups, he would have never come up with the iPhone. So sometimes you do need to rely on your intuition as an entrepreneur, take the plunge and get the product to some live users on a small scale.

As you are doing your market research, use each stage to help you daydream for the purpose of refining and improve your product. Sometimes, if the research shows that no matter how hard you tweak or improve your product there is not going to be any market acceptance, then you need to be willing to scrap your idea and dream up something very different. Yes, it can be painful, but it is sometimes better to accept the harsh reality than to spend all your energy and resources on a venture that has little chance of succeeding.

Now that you understand the role of market research in helping you dream up your business idea, the next chapter will take a look at the key ingredients that go into the making of a successful business.