

Suggestions for Developing Your STEM Business Plan and for Preparing a Three-Year Financial Projection That Supports Your Plan



Believe in Ohio Co-Director, John Klipfell, shares his experiences with students:

Over the course of my business career, I have been fortunate to have seen, experienced and learned much about how the business and entrepreneurial start-up world works that I wish to share with students.

As a top financial executive at an Ohio multi-billion-dollar Fortune 500 company, I challenged the business and financial plans of our many business units, and was a key player in buying and selling multiple companies. As an operating executive at the same company, I made major sales presentations at the corporate offices of many of our country's leading retailers. As an "intrapreneur" at that same company I lead three different, technology company startups, frequented Silicon Valley, and pitched our entrepreneurial product ideas to Microsoft, Intel, HP and other technology companies. I also worked closely with investment bankers, and was involved in major patent battles with competitors.

In my post-corporate life, I started up charitable organizations to help people in need, and started up, and for many years, ran a successful family business. Over the last fifteen years, I have talked with thousands of high school students about their business plan ideas.

What I have learned over time from all my experiences is that Ohioans can successfully compete with anyone in the world if they invest the time needed to develop a well thought through business plan and never give up on their dreams. In that vein, students, as you prepare to develop your STEM Business Plan and your three-year financial schedule that supports your plan, please allow me to share some of my observations from working with students, and offer some practical suggestions based on my real-world experiences:

Real World Lesson 1 – No matter how good your idea is, if you don't develop a realistic plan as to what it will take in terms of time, talent and money to succeed, you will be less likely to be successful.

Observation:

- Most first-time entrepreneurs oversimplify and/or simply don't know what needs to be done to actually develop and vet their idea, then make and market it. Many also don't understand what needs to be done first, and in what sequence thereafter. Others oftentimes fail to appreciate how much time the development process may take. As a result, they often significantly underestimate what it will realistically take in terms of time, talent and money to succeed, and as a result, they increase their likelihood of failure.

Some suggestions for students, because we want you to be successful:

1. Discuss your entrepreneurial idea(s) with as many knowledgeable people as you can and seek their advice as to what issues you should address in developing your plan. People to talk to might include, your parents and their friends, your teachers, and business people in your community.
2. As you develop your plan, put together a timeline that includes: what actions you expect to take, and in what sequence; what people you need to hire to implement your plan; and what other costs and expenses you expect to incur along the way. Use your timeline as a guide for what revenues and costs you include in your three-year financial projection and when to include them.
3. Learn from the people you talk to and the research that you do and continually revise your plan as you learn more and more from the people you talk with.

Real World Lesson 2 – No matter how good you feel your entrepreneurial idea is, if you don't invest the time to determine who your most likely customers/users are, and confirm that your idea addresses their wants and needs, you may “miss the mark” and fail to connect with your target audience, and therefore not realize the potential of your idea.

Observation:

- In general, people tend to think that others see things the same way they do, which is seldom the case. In fact, it matters more what your potential customers and users think about your entrepreneurial idea, than what you think about it.

Some suggestions for students, because we want you to be successful:

- Invest the time to learn about the people who you believe will most likely be your customers and users, find out what they really think about your idea, and then make appropriate changes in your plan based on what you learn.
- Consider doing one or more focus groups as part of your plan to learn what potential customers and users really think about your idea. Allow enough time in your timeline for this activity and include the cost of doing so in your financial projection for your STEM Business Plan.
 - To find out what it might cost to do a focus group, or any other activity, google your questions.
- Strongly consider developing a prototype as it is often difficult for prospective customers to fully understand your entrepreneurial idea unless they can see it for themselves.
 - Whether your idea is to develop a new physical product or service to sell, or a new software application, or a new e-commerce app, or whatever, if the members of your startup team don't have the ability to develop a prototype themselves, you should consider including in your plan the cost to hire an appropriate expert or design company.
 - If you decide to hire an expert or design company, understand that it will likely cost \$100 to \$150 or more per hour to do so. Make sure that you allow enough time in your development timeline and include the projected cost in your financial projection worksheet.

Real World Lesson 3 – It is important to learn as much as possible about your current and prospective competitors. Do not underestimate them.

Observation:

- Often, prospective entrepreneurs fail to learn about potential competitors, and then underestimate them.

Some suggestions for students, because we want you to be successful:

1. Learn as much as you can about both your current and potential future competitors. You can learn much from them and potentially avoid making the same mistakes they may have made in the past.
2. Learn what competitive advantages competitors currently enjoy, and if possible, try to understand how they might be planning to compete in the future and what new technologies they may be investing in, then determine how your idea(s) will provide a competitive advantage for you.

Real World Lesson 4 – In most cases, it is the entrepreneur and their friends and families who end up providing most of the funding to launch a new product or service or business. To minimize the risk of financially hurting those closest to you, my suggestion is to avoid biting off more than you can chew, keep your plan and idea as simple as possible, and then build on your early successes.

Observations:

- Many people wrongly assume that they can simply come up with an idea, pitch it to a big company and they will buy it. Big companies rarely accept unsolicited ideas for fear of later being sued for stealing the

person's idea. Also, don't expect any major retailer to buy your product for resale unless you are able to demonstrate to them a proven, substantial track record of sales success.

- It is also unrealistic to assume that a bank will provide funding to a startup business based solely on a business plan, unless other collateral is provided. It is also unrealistic to expect to obtain funding from an investment bank or other outside investors without first demonstrating the revenue potential and sustainability of your venture.
- Although business plan competition awards and crowd funding may provide some potential funding for a new venture, the reality is that, unless you are an intrapreneur working within a large company, the large majority of new ideas and business get launched with funding from the entrepreneur's own funds (or personal debt), and from "friends and family" who believe in the entrepreneur and his or her ideas.
- **The entrepreneur and family and friends are often at the greatest risk of loss, which is one reason why we put such a strong emphasis on the student learning how to develop a quality, well thought through business plan and related financial projection schedule so that they can minimize their risk of failure.**

Some suggestions for students, because we want you to be successful:

1. Don't bite off more than you can chew. If possible, simplify your entrepreneurial idea to make it more doable and minimize needed funding. The following are a couple of examples that help make the point:
 - Suppose that your breakthrough product idea is a new, lightweight, waterproof, heavy duty fabric that will not shrink or wrinkle. You see the immediate potential to use the fabric to develop a line of camping tents that you plan to sell online. You also foresee an opportunity to develop a line of men's and women's outdoor camping clothing, which would be a more complex business to develop and manage, and would require a great deal more funding to get started. Pursuing the more complicated outdoor clothing opportunity would appear to be a much riskier proposition. You decide to pursue the camping tent opportunity first, knowing you can always pursue the outdoor clothing opportunity later.
 - Suppose that your breakthrough idea is a new type of remote, wireless, monitoring security camera service for cars and light trucks. In the US and Canada alone, there are about 300 million total cars and light trucks on the road, which includes about 20 million new vehicles sold each year. Your idea has application to both new and existing vehicles. Which market should you decide to focus on? After giving thought to how difficult it might be to get the auto companies to buy your product, you decide that the owners of the 280 million used vehicles on the road will not only be easier to sell to, but they also represent a much larger number of potential customers.
 - Suppose that your breakthrough idea is a unique assistive technology device to help certain autistic children communicate verbally. You initially planned to manufacture the device yourself, but the amount of funding needed to acquire a building, equipment and skilled labor is huge. Rather than make that huge investment up front, you discover that you can outsource the manufacturing of the device to another company for the first couple of years. While you find that it will cost a little more to have each device made, the risk of making a huge investment in plant and equipment will be avoided.
 - [Click here to see some of the many outsource companies that might be a resource for you.](#)
2. **Give much thought to who is most likely to need or want or buy or make use of your proposed new product or service, then focus your marketing on them first.** Later, as you learn more about your product and your customers, extend your marketing to other potential customers.
 - For example - men or women. For example - teenagers, college age, young adults, parents with younger children, parents with older children, older adults, etc. For example - lower income, middle income or upper income people. For example, city, suburban, or rural people.
 - Target your marketing based on the demographics of your most likely customers or users. For example, if you target adults, you may wish to use Facebook for your social media promotions, whereas if you are targeting teenagers and college students, Instagram might be a better choice.
 - [Click here to check out the demographics for the various social media platforms.](#)