Agrifutures

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System Design

EBook

Principles Of Design

Design Process

The good design of a system aims to create a good fit between your niche and the demands of the marketplace. In this EBook we will explore how a business model canvas can be used to clearly identify the characteristics if your target customers and how you can most effectively get your products or services to them through the development of a lean startup style system/business. These tools represent the latest thinking of how to effectively create value from a small scale business that is being newly developed.

Business Model Canvas

Business Model Canvas is a strategic management and lean startup template for developing new or documenting existing business models. It is a visual chart with elements describing a product's value proposition, infrastructure, customers, and finances. The business model canvas is a shared language for describing, visualizing, assessing and changing business models. It describes the rationale of how an organization creates, delivers and captures value. The Business Model Canvas reflects systematically on your business model, so you can focus on your business model segment by segment. This also means you can start with a brain dump, filling out the segments the spring to your mind first and then work on the empty segments to close the gaps.

You can learn a lot from your competition. Choose some competitors and map their business models. Armed with this information you'll have deep insight into what customers want and what they are willing to pay for. You'll have a clearer picture of just how customers' needs are met across the entire industry, not just in your company. And, you'll uncover vital information about how other businesses, maybe even very successful businesses, have created their own spaces in the market.

The business model canvas, as proposed by Osterwalder and Pigneur (2010), distills an organization's business model into nine interconnected components customer value proposition segments, customer relationships, channels, key resources, key activities, partners, costs and revenues.

- **Value Proposition**: what are you building for who. Solving a problem or need for a customer, what gain are you creating or pain solving. What product or service you are building. Customers don't care about your technology, they are trying to solve and problem or fulfil a need. Solving a need is a huge market as opposed to a specific problem.

- **Who are the customers**: get out of the building to find out social characteristics and demographics of who the archetype or persona of your customer is. Need to

understand your target customer in intimate detail. On day one you only have a hypothesis of who your target customer is and you have to clarify this through trial marketing of your porotype product and through survey pf the market place.

- **Channels:** how do distribution channels get your product to the customer? Used to be through stores, now virtual channels the most well used. Through which channels that your customers want to be reached? Which channels work best? How much do they cost? How can they be integrated into your and your customers' routines?

- **Relationships**: How to get customers, keep them and grow them. How do you get them to your website, get them to do something and keep them around to spend more on additional products and services. What relationship does the target customer expects you to establish?

- **Value:** How do you get revenue from your product? Found out through interaction with many customers. For what value are your customers willing to pay? What and how do they recently pay? How would they prefer to pay?

- **What are the key resources:** what do you need to make it work? Do you need physical resources or specialised machines? Intellectual property, patents, customer lists, great people to design products. What do you need to do to keep people?

- **Who are your key suppliers**. What are you acquiring form partners, what activities will they perform and when. Partners you need in year 1 are different to those you need in year 10.

- **Costs:** what are the costs and expenses to operate the business model. Not just people and materials, but the most important costs. Fixed costs, variable costs, and determining the economy of scale.

Value Proposition

Seven out of ten new products fail to succeed, to improve upon this statistic the value proposition canvas was created to help visualise, design and test potential value within a product to customers. It is a simple way to understand your customer's needs, and design products and services they want. It works in conjunction with the Business Model Canvas and other strategic management and execution tools and processes. The Value Proposition Canvas is a tool which can help ensure that a product or service is positioned around what the customer values and needs.

Composed of two parts, the customer profile and value map.

- **Customer profile:** identifies what benefits the customer expects and needs, what would delight customers and the things which may increase likelihood of adopting a value proposition. A customer profile should be created for each customer segment, as each segment has distinct gains, pains and jobs. Pains – the negative experiences, emotions and risks that the customer experiences in the process of getting the job done. Customer jobs – the functional, social and emotional tasks customers are trying to perform, problems they are trying to solve and needs they wish to satisfy.

- **Value map:** lists the products and services you wish to build upon and how they reduce pains and create gains benefits that the customers would like. The goal is to find out what customers resonate with and create a fit. Gain creators – how the product or service creates customer gains and how it offers added value to the customer. Pain relievers – a description of exactly how the product or service alleviates customer pains. Products and services – the products and services which create gain and relieve pain, and which underpin the creation of value for the customer.

After listing gain creators, pain relievers and products and services, each point identified can be ranked from nice to have to essential in terms of value to the customer. A fit is achieved when the products and services offered as part of the value proposition address the most significant pains and gains from the customer profile.

Identifying the value proposition on paper is only the first stage. It is then necessary to validate what is important to customers and get their feedback on the value proposition. These insights can then be used to go back and continually refine the proposition.
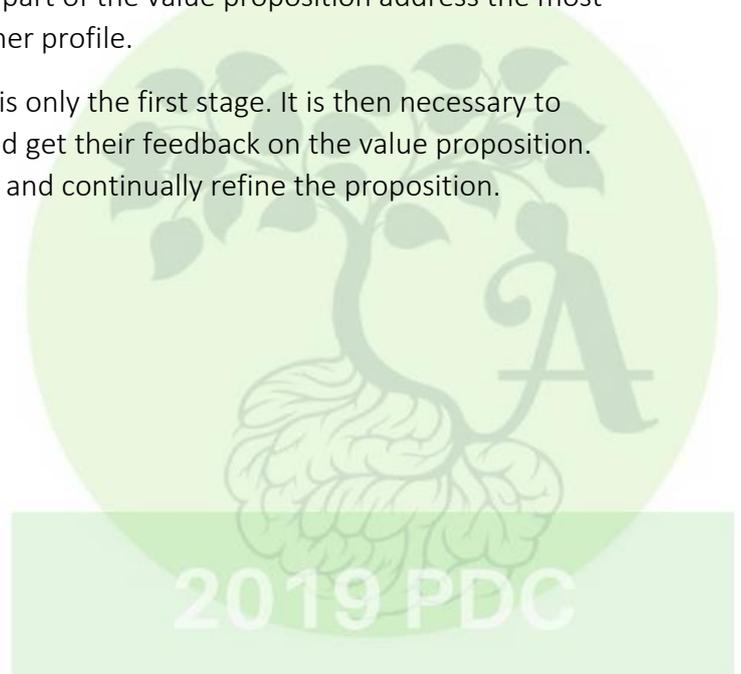
Lean Startup

Instead of executing business plans, operating in stealth mode and releasing fully functional prototypes, young ventures are testing hypothesis, gathering early and frequent customer feedback and showing minimum viable products to prospects. This new process recognises that searching for a business model is entirely different from executing against that model (which is what established businesses do). Business plans rarely survive first contact with customers. No one besides venture capitalists requires five year plans to forecast complete unknowns. These plans are generally fiction and dreaming them up is almost always a waste of time. Start-ups are not smaller versions of established companies. The ones that succeed go quickly from failure to failure, all the while adapting, iterating on and improving their initial ideas as they continually learn from customers. Existing companies execute upon a business model, startup are finding one.

The lean definition of startups is: a temporary organisation designed to search for a repeatable and scalable business model. The lean methodology has three main principles:

- **Firstly:** On day one all you have is an untested hypothesis. Instead of writing a detailed business plan should instead write a framework called a business model canvas. Essentially a diagram, of how a company creates value for itself and customers.

- **Secondly:** Lean startups use a get out of the building approach called customer development to test their hypothesis. They go out and ask potential users, purchases and partners for feedback on all elements of the business model, including product features, pricing models, product features, and affordable customer acquisition strategies. The emphasis is on nimbleness and speed. They use the customer's feedback to revise their assumptions, then start the cycle again, testing redesigned offerings and making further adjustments or more substantial pivots to create redirection when things are not working.

- **Thirdly:** Lean startups practise what is called agile development, which works hand in hand with customer's development. Unlike typical year-long product development cycles that presuppose knowledge of customer's problems and needs, agile development eliminates wasted time and resources by developing the product iteratively and incrementally. It's the process by which startups create the minimum viable product they test.

New ideas take time to grow. You first have to play with them a bit, move on from the envelope to something more substantial like a business model canvas or a proof of concept. And it would be great if during the process you or the mailman do not have to invent the wheel. Assistance of colleagues will be much appreciated and will gain you some valuable insights in refining the idea.

Once you have that assistance, you can further work out the idea. There are various methods to do that. Agile and Lean Startup are just two of them. Both of these are umbrellas for

different techniques to get quicker results, making the idea more concrete, than the traditional waterfall process.

Design Sprints

The design sprint brings participants through inspiration and divergent thinking before narrowing in on something to test, and then actually getting customer reactions — all within a five day period.

This limited scope makes for a much easier investment for a company to make. And by starting with gathering customer insights, you can be sure your time is spent on a problem your customer really wants to be solved.

Business stakeholders talk about revenue-generation and cost-reduction, and the design sprint can help with both. You can rapidly come up with great new products, or as in the case of one of our sprints, you can get the signal NOT to develop something.

Five Steps to Success:

- **Pick a Critical Problem to Attack:** Don't waste your team's time on small problems. You're taking a week to dig into the problem, make it a good one.

- **Involve Your Stakeholders:** Design sprints aren't just for designers or PMs to go off and work; bring your stakeholder ('the decision-maker') into the week as much as possible. The bigger the problem you pick, the more he'll care about the outcome.

- **Be Willing to Do Something With Your Findings:** Don't run a design sprint just to say you're "doing innovation". If your team uncovers something surprising, be prepared to follow that path further. It could lead to something great!

- **Respect the Process**: The design sprint process is tried and tested; follow the guidelines so you're focusing on finding the best solution to your challenge rather than coming up with processes.

- **Recruit Early:** Getting the right people to talk to on Friday is the key to ending your week on a positive note. Spend the time to identify and recruit people who can give you feedback on your hard work.