



## Session 12 - Making Money

Determining who your customers are going to be, what problem you're solving for them, and how your solution is unique and better than competitive offerings are important steps toward the creation of a viable business. However, none of these steps matter much if the economics of the business don't work. That is, if it costs you more to provide the solution than customers are willing to pay for it, you have no chance to succeed.

This video discusses five fundamental economic concepts – unit variable cost, unit revenue, unit contribution margin, fixed costs, and breakeven volume - to illustrate how businesses make money.

Let's start with unit variable cost. The unit variable cost of your solution refers to how much it will cost you to produce, store, and sell one unit.

For example, if you were to start a lemonade stand, it might cost you 2 cents for a cup, 25 cents for a lemon, 5 cents for sugar, and 1 penny for a straw. This would give you a total unit variable cost of 33 cents for one cup of lemonade.

Unit revenue refers to how much money a customer will pay you for one unit of your solution. Another way to refer to unit revenue is the price your customer pays. For example, unit revenue for our lemonade stand might be one dollar per glass.

Unit margin is simply the difference between unit revenue and unit variable cost.

Again, for the lemonade example, unit contribution margin would be our selling price of \$1 minus our unit variable cost of 33 cents, so 67 cents. This is how much of our revenue is left after we pay for the variable cost of making the product that we just sold.

Figuring out these three basic economic concepts for your solution – unit variable cost, unit price, and unit margin – will go a long way toward determining the viability of your business. If customers aren't willing to pay more for your solution than it costs you to make, then there is no chance that you will succeed. As I like to tell my students, you simply can't sell dollar bills for 90 cents (but if you want to make me that offer, I will buy your entire supply).

Two other economic concepts are also important – fixed costs and breakeven volume.

Fixed costs are business expenses that don't depend on the amount of products produced and sold by a business. You have to pay them even if you don't sell anything. Examples of fixed costs include rent for a store, employee salaries, business licenses, and production equipment. In our lemonade stand example, fixed costs might include a juicer, materials to build a stand, a salary for an employee to staff the stand, and business license fees.

As an entrepreneur, it is highly desirable to keep your fixed costs as low as possible to preserve whatever startup funding you may have. In the lemonade stand example you might be able to simply borrow a juicer, beg for scrap wood to build the stand, and staff it yourself to save money.

If you can figure out the fixed costs that will be associated with starting your business, and you can estimate what the unit contribution margin will be, then you can also estimate the quantity of your solution that you're going to need to sell to breakeven.

To calculate breakeven volume you simply need to divide fixed costs by unit contribution margin. In the lemonade stand example, let's assume that we decided to buy everything we needed to start the stand, and we paid \$200 for a juicer and \$500 for materials to build the stand. We also decided pay a friend \$1000 to staff the stand for a week and it cost \$100 for our business license. This would give us total fixed costs of  $\$200 + \$500 + \$1000 + \$100$  or \$1800.

Recall that our unit contribution margin was 67 cents per unit or glass of lemonade we sell.

This means that we will need to sell almost 2700 glasses of lemonade just to breakeven.

Now, let's consider the case where we begged and borrowed and staffed the lemonade stand ourselves. In this case, the fixed cost would be just the \$100 for a business license.

In this case we need to sell only about 150 glasses of lemonade to breakeven. So, if we can sell more than 150 we can begin to actually make money.

Once you understand the five basic economic concepts we have talked about in this session – unit variable costs, unit revenue, unit contribution margin, fixed costs, and breakeven volume – you'll be well on your way to assessing the economics of starting a business to deliver your solution to customers and you'll know what assumptions you need to validate about your model for making money to ensure that your business is viable.

As a general rule, the best business opportunities are ones where you can keep unit variable costs low, charge high prices because you deliver something unique or get customers to buy your solution frequently so that you have recurring revenues. Also, businesses where you can keep fixed costs low so that you do not have to sell very many units before you begin to make money are great businesses to try to start.

Jon Brilliant: "I think it's important to understand three things about any business. How big is the market that you operate in? How do you make money? That is, what does it cost you to make a customer? What does it cost you to make what you are selling? And what is the profit that you can make on that? The third is, how do you win? How do you distinguish yourself from your competition? It maybe something proprietary, it may just be a unique element that you've come up with that nobody else has. But I think those three elements are very important to understand.

David Pensak: "I've got a fireproof fabric that I've invented right now and it works wonderfully. Well let's imagine that you had a ton of money and you had some very expensive statues out in your front yard. And you were living in Southern California where they've got lots of brush fires. Statues can often cost 3, 4, 5 million dollars a piece. Forest fire comes running through, they're

destroyed. So the insurance companies will charge you about 10% of the purchase price per year as a premium. Now I like art, but I'm not about to spend \$500,000 a year just to look at something in my front yard. Well I now by these little pup tents that you use to cover your port-a-potty or your shower when you're out camping. I pay about \$30 a piece for them. I take off the nylon, I put on my fireproof fabric. So a forest fire is coming, you take these out drop them over your statue. Alright it takes about one minute a piece, and we're selling them for \$20,000 a piece. At first my conscience really bothered me because my costs are about \$125, but the folks at Sofby's explained to me that it's the value in use that's really important, not your manufacturing costs. If somebody's paying \$500,000 a year to look at statue and the insurance company would give them 25% off – would they spend \$20,000 to save \$125,000 a year? Even congress would go along with that. So sometimes you really have to look carefully at how the customers going to use it to figure out the actual pricing model. Not take your mill costs and multiply it times a little bit. And don't assume that facebook is going to make anybody rich, because they won't. They're greedy.

Understanding the factors that drive revenue – units sold and price – as well as costs - fixed and variable – will help you to make sound business decisions. However, it's also important to consider the timing of when you will incur costs versus receive revenues, as many startup companies fail because they simply run out of cash. For many businesses, there's a time delay between when you have to pay your bills and when your customers pay you. Depending on how long it takes you to sell your product and whether or not your suppliers will give you credit, you can have months of cash going out with none coming back in. That's why it's important to plan by doing a forecast of your cash needs to ensure that you'll have enough to get you through. That's why it's also important to utilize evidence-based entrepreneurship, so that you can minimize the amount of time and money you spend searching for a viable business model.

To close this video, I'd like to share a warning from Daymond John, founder of FUBU and investor on ABC's SharkTank – to launch a successful business “you need to avoid a vitamin C deficiency – no Cash, Credit, or Customers.”