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The Importance of Gross Margins

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Stanford Department of Management Science and Engineering lecturer Ravi Belani illustrates the crucial importance of “gross margins” using a simple analogy about selling cookies on the Stanford campus. He explains how a single ratio — a gross margin of 75% — is a mathematical yet almost magical key to building a business that can grow at a 3x clip per year, and turn a $1 million valuation into a $1 billion valuation in a decade.

Transcript

So we're gonna start with the first, a first driver, which is just simply gross margins.. Gross margins is just the revenue minus the gross costs of producing an item.. So let's say that I am selling a cookie, and it costs me 50 cents to make a cookie, and I know all those ETL students are really hungry after they hear those lectures.. So I camp out outside of class, outside of Huang, and my intention is to sell you a cookie.. If I sell you that cookie for $1, my gross margins are 50 cents.. I sell you the cookie for $1, it costs me 50 cents to make, I make 50 cents of profit which means that how many cookies can I make next? One cookie, okay.. I sell that other cookie for $1, I make 50 cents of profit, and I can make one more cookie.. So at 50 cents, or a 50% margin, my slope is zero, does that make sense? I am basically just making one cookie every cycle.. If I have the insight to say, you know what, I'm not gonna target the Stanford students, I'm gonna go to the faculty club.. That's where they have the money, and I'm gonna charge a buck 50 for that cookie, suddenly, just by shifting the price up to $1.50, my margins go from 50% to 67%, but I sell that cookie for $1.50 at the faculty club, it cost me 50 cents to make..

I make a dollar of profit which means how many cookies can I make? I can make two cookies.. If I sell both of those two cookies for a buck 50 each, it's $3, it costs me a dollar to make, I have $2 in profit, which means I can make four cookies.. So just by doing that subtle shift of having the gross margins go from 50% to 67%, I'm suddenly on a multiplicative path.. Does that make sense? At 75, and let's say, you know what, if you're like, you know, it's not the faculty club, it's the Stanford Mall, that's where the real money is.. All the venture capitalists go and they shop there.. I'm gonna go to the Stanford Mall and sell that cookie for $2 and it only costs me 50 cents.. Suddenly I make 75% margins or a buck 50.. I sell one cookie for 50 cents for $2, I make $1.50 of profit, I can then produce three cookies.. If I sell those three cookies for $2 each, that's $6.. It cost me $2, I make $4 of profit, and then I keep going up..

So 75% then gets us at this magic growth clip of 3X.. I can start growing 3X at 75%.. So one of the golden rules, by the way is, is that if you do not want to raise venture capital, but you're like, I do wanna build a billion dollar business, if you can have your margins be 75% or higher, and if you can bill upfront, if you can have people pay you before you have to build the product, so if you can have people pre-pay for a year of Spotify before you deliver the service or pre-pay for a magazine, then you can be customer-funded and put yourself on that 3X growth curve to keep hitting things.. This is why venture capitalists love software, because the costs, as we increase these margins, our growth rates become even more absurd, and if you think about what's, with software, the cost of doing a Google search, the gross costs are just the energy of that server.. It's basically, it's basically nothing.. This is why VCs hate hardware.. I mean, just to oversimplify.. I don't wanna speak for all of venture capitalists, but hardware requires capital, you know, that you have to put in money.. Your gross margins are lower.. You need to worry about distribution and all these other things..

So these are some questions that I would ask if I was a venture capitalist, and then I would also wanna arm you to understand if you're a founder building a business that's seeking venture capital or just trying to build a big business is understand what your gross margins are.. If you're building hardware, understand what your Bill of Materials are, and if you are building something that's gonna be hardware-like, then you need to be able to answer the question of how do you finance the business to cover your Cost of Goods, and that's a separate discussion that we can have later.. Does that make sense? So that's, lesson one is gross margins...