3 Reasons Hardware Startups Fail by BOLT Labs

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By Ben Einstein

All startups face a mountain of challenges. When you throw a hardware product into the mix, that mountain inherits sub-zero temperatures and a record-setting blizzard. The path is not insurmountable, but hardware startup founders should carefully plot their course on their way to paying customers.

Founders of early-stage companies typically have two foci: cash and product development. Once founders nail the cash problem (whether through private investors, venture capital, Kickstarter or couch change) companies shift into high gear to make as many copies of their product as fast as possible. Despite their best efforts, first-time hardware developers often wind up with over-priced products of lower-than-expected quality delivered behind schedule. This trifecta of failure is driven by the same three things….

EXPERTISE
Manufacturing is harder than distributing software, but it's not impossible. If you were to ask Apple or Dell what the biggest problem they face with new products is, I guarantee you it won't be manufacturing. Manufacturing won't even make the top 5. But if you were to ask startups the same question, it almost always is . Think about why that is. They hire people that have done it before . It's worth every penny.

PLANNING
Timing is everything. Understanding a few basic facts about how products move through the manufacturing and distribution systems can make the difference between a blockbuster success and dismal failure. Avoid development feature creep like the plague. Anticipate at least one component in your product will go missing/lost/too expensive/long lead time and plan for replacements. Always factor in shipping and customs time + 50%. Know that most retailers lose money every month except December. Test everything.

ECONOMICS
There are really two factors at play here: what I call "microeconomics" and "macroeconomics". Microeconomics are things like your Bill of Materials (BOM) and Cost of Goods Sold (COGS). Own these numbers. Know that every penny counts. Consumer products typically see a 3-4x increase to the shelf cost (ie. a microprocessor that costs you $1 more means the end price of the product needs to be raised by $3 – $4).

Macroeconomics relate to the product/market fit and how many products you need to build/sell to get to your next stage of development. Every single time you approve a product run, you should have very specific metrics of what you want to learn. The oft-used

“make as many possible and sell them all” doesn’t cut it unless you want boxes and boxes of costly leftovers.

These are a subset of some of the pitfalls and how they can be avoided. If you have specific questions regarding product development and/or manufacturing, feel free to contact us at help@bolt.io.

Ben is the Managing Director of Bolt, a Boston-based program that helps promising early-stage hardware companies develop their products and get to market. Bolt provides companies with capital, staff, shop equipment, and extensive expertise with manufacturing and commercialization.

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