SaaS vs. custom-built enterprise software

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How far the world has gone in the world of Enterprise software. Ten years ago off-the-shelf software was expensive, you had to commit to a range of setup, maintenance, consultancy and training costs. Assessing the pros and cons of building software yourself vs. buying off-the-shelf software made sense and was in fact a routine exercise in many large organizations.

Today, thanks to the explosion of cloud-based software, it seems that there is a cheap, lightweight solution for practically any business problem out there. So should you build your own or subscribe to a SaaS software instead? In the article that follows we evaluate both options, drawn from decades of experience in IT.

1. Degree of customization

In theory...

- Custom-built: Custom-built software, by definition is fully customized to your needs.
- **SaaS Subscription**: SaaS software meets most needs for most companies, but it won't necessarily meet *all* your needs.

... and in practice:

The main attraction of custom-built software is that all requirements can be satisfied. This is in fact an illusion: resource constraints mean features must be prioritized –a messy, political process in itself. Not all requirements are met, and in truth, nor is it desirable to do so: most people use 10% of a product feature at best. By trying to satisfy the needs of many stakeholders in the organization, it is not uncommon to end up with overly complex, overspecified software. This hampers the user experience, limits the efficient utilization of the software solution, and diminishes the benefits that the custom solution is supposed to bring.

SaaS solutions are usually designed to do one thing very well. Over time they incorporate best practices from many different industries and companies into the product development, to maximize customer satisfaction. After all, their very existence relies on it. In consequence, SaaS solutions typically meets *most* needs of *most* companies. Crucially, they often come up with solutions that your employees hadn't thought of. Today, in most cases it is good to start with SaaS solutions. Once you have outgrown the capabilities of your SaaS solution, and if you have the budget for it (think millions of \$\$ in setup and maintenance, year after year), then it's worth upgrading to custom-made solutions.

2. Product improvements

In theory...

- Custom-built: Custom-built software allows you to add or remove features as you go grow.
- SaaS Subscription: Competitive pressures forces SaaS companies to continuously improve their software.

... and in practice:

Both statements are true, however, there are some important nuances to bear in mind: SaaS continuously incorporate customer feedback into their product roadmap. This is how they maximize customer satisfaction, thwart competition, and ensure business success. Their existence *depends* on it, so you are *guaranteed* that the product will evolve over time. What's more, SaaS solutions usually follow agile development techniques, an approach that favors short development cycles of and new releases every two to four weeks. As part of the process, SaaS companies incorporate extensive user testing to align product specifications with market demands. The costs of all this are baked into their pricing model, so there are no surprise bills for the upgrades.

In theory, the same could apply to custom-built solution. But in practice once the software is built, most of the project team is disbanded and re-assigned to other projects. Even when that's not the case, every evolution of the product is a mini-project that takes time and money. As a result, custom software is a viable solution for companies that have millions of spare cash to spend in outsourced software solutions.

3. Integration with third-party software

In theory...

- **Custom-built**: you can design your custom-built software to integrate with any software you want.
- **SaaS Subscription**: Open APIs allow most SaaS solution to integrate with a wide range third party software.

... and in practice:

These days most software solutions come with baked-in APIs -for the non-technical people, think of APIs as "connectors" that allow two programs to exchange information, which facilitate the integration with a wide-range of third party services.

An important thing to bear in mind however, is that you can only integrate with a third software if said software has built-in "doors" that allow it. Say you are hesitating between a SaaS or custom-built solution to track inventory levels of some merchandise. You want the inventory software to integrate with your existing accounting software. You will only be able to do so if the accounting software is able to "talk" with other software (typically through APIs). Therefore, if integration with existing software is key, you should *always* check

whether your existing software actually allows you to do so -whether you go down the path of SaaS of custom-built.

4. Speed of implementation

In theory...

Custom-built: Months or yearsSaaS Subscription: Instantaneous

... and in practice:

Custom-built Enterprise software projects typically take a minimum of 6 months and can take years, depending on the size of the organization, number of stakeholders, scope of the project, etc.

Getting started with SaaS software typically takes zero to a few days, depending on the complexity of the SaaS software, user training required, etc.

5. Last but not least: costs

In theory...

- Custom-built is expensive
- SaaS Subscription is much cheaper

... and in practice:

Custom-built software is much, much more expensive than SaaS. These days a mid-level engineer will cost you a minimum of \$100,000 per year. A project manager will cost about the same. Even when most of the coding work is outsourced to low-cost countries (think India, Ukraine, Belorussia), you'll be spending at least \$1 million, from start to finish, to have a software up & running. You'll be also footing the bills of maintenance costs which are usually in the thousands of dollars per month. Last but not least, none of this takes into account the cost of failure, which typically affects 30% to 70% of enterprise development projects.

SaaS businesses distribute the costs of development across many customers. As a result, the costs are much lower. What's more, with SaaS businesses, the costs are completely variable: you pay a subscription per month.

Conclusion

So when should you build custom software? To answer this question you need to ask yourself: Is the software part of your core competency and helps you differentiate your product or service? Is the purpose of the software to fulfil something for which there is genuinely no solution? If you are leaning towards custom software, do you have people inhouse with deep IT experience, an understanding of current technologies, your legacy systems, and the interaction/interconnection between the two?

If the answer to any of the above questions is no, you are almost certainly better off subscribing to a SaaS solution.