Is There a "Moat" in the Business of Software?

By Alexander Chmelev, Partner, GEC

Software has eaten the world. Its use is widely accepted in every industry with the goal of automating and streamlining any task. As the sophistication and capabilities of software are getting more impressive by the day, new use cases continue to appear that solve customers' problems. Software companies with business models such as SaaS (Software as a Service) continue to generate high profit margins and recurring cash flows, making them attractive to investors. Thus, any sophisticated investor must ask: How sustainable are these dynamics? How strong is the moat in the business of software?

With the advancements in modern programming techniques including AI coding assistants, such as ChatGPT or GitHub Copilot, the productivity of software developers is rapidly increasing. Using these tools, a beginning developer can now have the productivity of an experienced developer who does not use them. A great developer with decades of experience can now be a "10x" developer. All of this is driving down the cost of new software. As a competitive threat, this means the functionality of a popular software system can be replicated, given enough resources and time.

It is clear that the moat for a software product is not in the code base or the tech stack, but in the underlying business model of the company selling the software. One of the tenets of a great business model is the value proposition its products or services deliver to its customers. The greater the value proposition, the higher the pricing power of that business and the more difficult it is for the competition to match it. Furthermore, it is important that the value is captured and benefits are realized by customers as quickly as possible.

Take Cumulus Digital Systems as an example. Cumulus provides a software platform that ensures quality for critical work at industrial facilities by connecting digital tools with intelligent workflows. Compared to the traditional workflows and quality assurance during construction and maintenance of industrial facilities, Cumulus' platform delivers a ~10x decrease in the rate of defects, avoiding costly downtime. The software also saves each worker 1-2 hours per day in productivity. Multiply that by hundreds of active workers per site per day - *now that is value delivered.*

Workflow Builder by Cumulus Digital Systems

The company's first product was the Smart Torque System, a platform allowing customers to maximize quality and productivity during assembly and maintenance activities of bolted joint connections (i.e., flanges at any process plant).

The product was a quick success with multiple customers around the world. However, Cumulus continued to innovate to find ways to deliver additional value to its existing customers as well as find product-market fit with new customers in adjacent markets.

The company has since added new features such as [Digital Pressure Testing](#) for inspection of any pressurized systems and [WeldScout](#) for AI-enabled inspection of quality of welding jobs.

While Cumulus had a stable initial product that delivered tremendous value to its customers across millions of unique work completions at industrial sites around the world, the company knew it was not a sufficiently strong moat which could allow it to stop innovating. Cumulus realized it needed to find new ways to deliver more value to its customers and appeal to new ones. As a result, Cumulus has been able to grow its ARR (Annual Recurring Revenue) by ~100% per year for the past two years.

Any competitive advantage will erode with time. The strength of the moat required is correlated to the value of what the moat protects (size of market, attractiveness of profit margins, etc.). The companies that recognize this, will continue to push innovation to deliver even more value to its customers by introducing new features and use cases.