SWOT Analysis: SAS Institute

The SAS institute or simply SAS, is a multinational analytics software titan located in Cary, North Carolina. SAS is the world's largest privately held business, and since 1976 it's software platform has been found in a majority of Fortune 500 companies.(1) What started as a computer project from North Carolina State University, CEO James Goodnight and his fellow graduate students at the time would go on to create the original "statistical analysis system".(2) SAS would see decades of success, while remaining relatively unnoticed or under the radar, with a 2018 revenue reported of $3.27 billion USD.(3) SAS would also separate themselves from the competition in that they would heavily reinvest their own R&D, with 26% alone in 2018.(3) At their Cary headquarters, which houses roughly ~5,500 employees, SAS continues to be nominated for "top places to work" and is often cited as a pillar of excellent work culture. CEO James Goodnight is often quoted as wanting his employees to feel respected and empowered, as a satisfied employee will be a productive employee.

Figure 1: Graph of revenue since year 2000
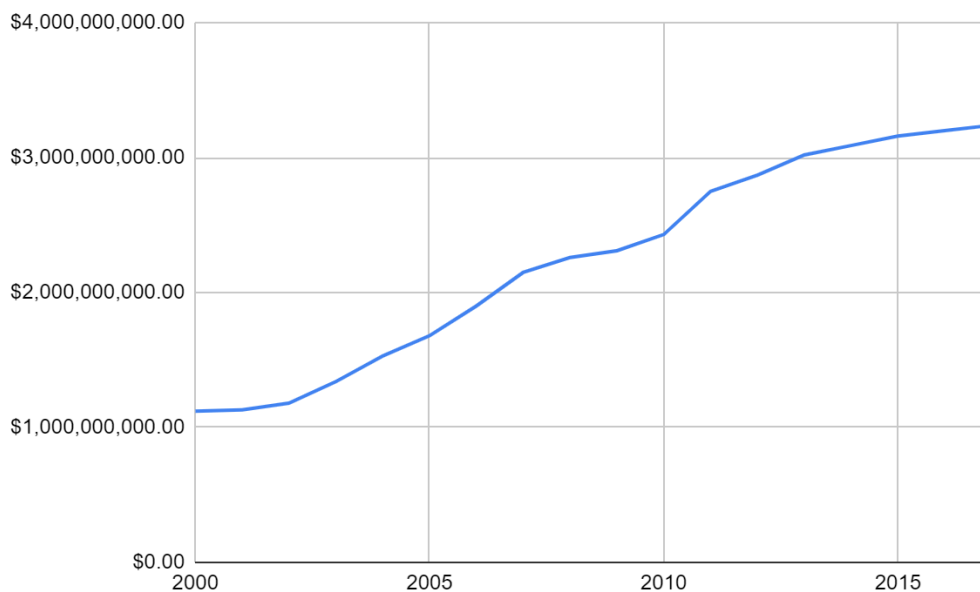
As illustrated in figure 1, SAS has maintained a robust and steady profit margin since it hit the billion dollar mark in 1999-2000. Before that It grew from humble beginnings of $138,000 in 1976 with its founding, to where it steadily grew in from $100 million and upward in 1986.(3) Curiously from 1984 through 2012 the company acquired other companies as needed to expand and enhance its own platform, but since 2012 the company has seemed to focus mostly inward and has not had any other mergers or acquisitions.

STRENGTHS

Analytics Everywhere - Analysts rank SAS as a leader in: AI-Based text analytics, machine learning, analytics, customer analytics, fraud detection, risk management, data integration, data quality, big data, and enterprise insights platform. (4) Can you say the magic word, analytics? Those are some impressive and more importantly expensive categories for SAS to be recognized as a leader in. Furthermore, 100% of Fortune 500 companies in these areas rely on SAS: commercial banking, health insurance, pharmaceutical, aerospace manufacturing, e-commerce, computer services, and retail banking.(4) SAS is used where it counts, and where the economy runs. As a piece of anecdata to close this section, in nearly every single "analyst" position I have applied for while looking for jobs, they almost all still require or desire a candidate who is familiar with or knows the SAS platform/application. Knowledge of SAS is a competitive advantage as an employee, which is a sign of power from a vendor standpoint.

WEAKNESSES

Competitive Landscape - While SAS was the big, and really only dog in town for much of its lifetime. That has changed in the last 10 years. With the rise of open-source, and the cloud, they are quickly losing their competitive advantage.(5) One such application known as "R" has quickly become the default statistical analysis software choice for many academics and scientists. It is not only free (open-source), but it is more easily supported.

Inertia - SAS being a larger company is always at risk of lagging behind, and risk tripping over itself should it stop innovating. While SAS has invested $1 billion into AI in 2019, they are slightly behind the curve compared to big names such as Amazon, Google, and Microsoft. SAS also has relied on its namesake and brand to naturally carry some of its success, with the inertia and laziness of big companies to naturally proliferate the SAS platform from one generation to the next. However, Rita Sallam an industry analyst at Gartner makes a valid critique: "One of the challenges SAS has with its installed base is their business model. It's very complex, viewed as expensive and difficult to use -- exactly the opposite of what companies are looking for when they buy analytics software."(5)

OPPORTUNITIES

Analytics In Action - Being an analytics software platform in an every connected world, with internet of things (IoT), and smart devices proliferating at an ever increasing rate places SAS in a strong position to leverage itself as still industry leader in analytics. With their robust investment into AI, a constant investment in internal R&D, and a deep company history of talented data scientists - SAS should be able to adapt to any headwinds that a tech focused future can bring.

With an eye towards healthcare, sustainability, connectivity, and the power of AI, machine learning, and cloud being the engines that will power these efforts - SAS has an eye towards the future and what will be impacting it the most.

THREATS

SAS For Sale? - CEO James Goodnight was recently asked if he would sell SAS, and his reply was: "if the right offer came along...but we are not considering a sale of the company for the foreseeable future."(5) That is not exactly an answer of steel rigidity in the era of Google/Amazon/Microsoft swallowing up its competitors with their mighty checkbooks. While it would cost them deeply to purchase SAS, they would likely be able to do it, and while that could be quite the boon for the big three, it could be hugely detrimental or a crisis of identity for SAS. A relatively reclusive and proudly private company for several decades, would have "sold out" because their market growth had become flat.

An Ever Changing World - SAS is the royalty of analytics software, and has rested on its laurels as being almost evergreen in its market share and deployment for decades. However, the world and technology moves at an ever increasing pace. IBM, once considered a chief rival for SAS has been relegated to a second tier of computer and software vendors, SAS risks being overtaken by not only competitors but by the market itself. Software is no longer bought in boxes or expensive packages, it's downloaded for free and then charged in pay for fee or service models. A younger generation is also going to have been exposed to more open-source and different applications, and if employers and universities move away from SAS as a platform, it's proliferation through apprenticeship will greatly diminish as well. SAS will need to consider how enterprises such as Adobe were able to stay relevant and profitable, while still considered a legacy product line.

Conclusion

The SAS institute faces an uphill battle, however with a recent infusion of $1 billion USD into AI R&D - they may be showing a new shift in initiative and focus. They enjoy a large install base, wide name recognition, and decades of respect from the field of data science. The major fields and enterprises that make up the global economy all currently use and will likely continue to use the SAS platform for their analytics needs, and that is powerful inertia. SAS will need to be aware of its competitors, and may not be able to enjoy it's relatively comfortable spot from the shadows forever however. A streamlining of acquiring, learning, and proliferation of its software would do much to proliferate the software platform to further generations of data scientists and analysts. With all that said, SAS continues to be in good hands with steady and

reliable leadership, excellent work culture, and unique brand identity in a niche field. I expect SAS to continue to be successful and profitable for many years to come.

Citations

1.) https://www.nytimes.com/2009/11/22/business/22sas.html?auth=link-dismiss-google1tap&pagewanted=all
2.) https://en.wikipedia.org/wiki/SAS_Institute#cite_note-sixtyeight-2
3.) https://www.sas.com/en_us/company-information/profile.html
4.) https://www.sas.com/content/dam/SAS/documents/corporate-collateral/annual-report/company-overview-annual-report.pdf
5.) https://www.bloomberg.com/news/articles/2019-04-29/billionaire-software-pioneer-goodnight-paves-way-for-successor