



Circuit board designer rides big tech wave

by Roger Montgomery

Altium (ASX:ALU) designs software that is used to design circuit boards in a virtual environment. These boards are later manufactured, becoming the backbone of every electronic device. And devices of course are proliferating.

Altium is a high quality software provider with a demonstrated ability to grow its market share and through R&D, and develop a product with a competitive advantage.

With the quantity and complexity of these boards increasing, if not accelerating as the 'Internet of Things' becomes a reality, the company's growth has yet to mature and its expansion opportunities appear lucrative.

Altium has grown its share of the PCB design software market to approximately 10% over the past several years by improving the software's capabilities, for example, introducing functions that can enable the design of higher-speed circuit boards – boards where the electrons flow around the board space more efficiently – and 3D circuit board modelling. More specifically, the firm has been growing by displacing dominant player Mentor Graphics PADS software.

Altium offers several products generating a number of revenue streams:

1. Altium Designer Version 15 (35.58% of revenue) – Software that allows an engineer to design a circuit board in a virtual environment. Perpetual licence fee is \$7,500 USD.
2. Altium Subscription (47.12% of revenue) – Subscription that provides updates & upgrades of Altium Designer as well as customer support. The subscription costs \$1,750 USD per annum.
3. Altium Vault (9.85% of revenue) – Saves performance and other data on current circuit board designs in order to improve future designs.

The licences for the software are once off payments that give clients perpetual access rights (\$7,500 per user for that particular version only). In order to receive updates, upgrades and access a community of other engineers and customer support, the customer must purchase a subscription for \$1,750 per user. Subscriptions are paid on a recurring basis and contribute 47.12% of the firm's revenue.

The updates are necessary for clients because of continuously improving technology in circuit board components (designed by companies such as Intel). These new components need to be hardcoded into the designer software. Without this, the client's products may fall technically behind that of competitors. To provide a constant flow of updates, the firm employs a team of programmers in China, who continuously develop new code. The firm also commits to the release of three new products/major updates per annum.

The firm's customers operate in a large array of industries and are quite well known, from Boeing, NASA and General Dynamics to Audi, Lexmark, John Deere and the CSIRO.

The firm's largest contributor by sector is from automobile manufacturers such as Volkswagen & Chrysler at 15% of revenue. The remaining sectors contribute 10-15% each.

Altium's customer base tends to be sticky because switching involves an estimated 2-3 months of lost productivity.

Customer feedback tells us that Altium's product was

unremarkable in the 00's. According to one customer, ALU started to get their act together around 2009/10 and began to slowly regain trust and "I would be willing to sign up to a regular update plan now more than ever before, the fear of bugs in the new releases has largely subsided."

Altium is leveraging its client base to change its business from a "once-off-fee" revenue model to a subscription model. Subscriptions are paid annually and comprise approximately 47% of the firm's FY14 revenue. Over time, we expect that these payments will dominate the firm's revenues, providing a highly predictable and more highly valued annuity stream.

The industry is difficult to enter due to its small size (approx. \$848 million) and sticky customer base. Synopsys (the largest player in the PCB market with no PCB design software) claims that to develop a competing product from scratch could take 3-5 years, however from a cost/benefit viewpoint it would be more economical to enter by acquisition. The long development time is due to the program requiring millions of lines of code as well as a sophisticated understanding of how electrical and mechanical engineering should be integrated into a software package.

We purchased ALU at less than half its current price, which is now approximating our estimate of its intrinsic value.

Should higher market shares and higher margins be realised, for example, every 1% of mainstream market share taken per annum adds about 50c to our valuation. In addition, for every 1% per annum that personnel expense does not increase, 30c can be added to our valuation. This should provide investors with some insight into the potential for ALU, given it's not a bargain presently.

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