Building a Valuable Company with “E Ink on Every Smart Surface”

by Sri Peruvemba

As one of the youngest CEOs in the display industry, Johnson Lee has increased the shareholder value of E Ink fivefold in the last two years to New Taiwan (NT) $160 billion (December 15, 2021). Along the way, he has established a thriving business in Electronic Shelf Labels (ESLs) and launched dozens of new display devices. He also has enabled the eNote application, bolstered the eReader business to a stronger position, expanded the ecosystem for ePaper, and is striving to lead the industry by example in its green initiatives and creating a valuable company for employees, shareholders, and customers. This is evidenced by the way he is promoting several key leadership positions from within E Ink, building new royalty streams, and establishing several joint development agreements with industry leaders.

E Ink counts Amazon, Lenovo, BOE, Panasonic, Toppan, Foxconn, Alibaba, and Google among its global customers. The iconic Amazon Kindle was enabled by E Ink’s electrophoretic (ePaper) display; hundreds of millions of ESLs are revolutionizing retail stores globally; and E Ink’s ultralow power signs adorn many train stations and bus stops. Its technology has enabled a writing tablet that mimics the pen-and-paper experience. Dozens of new applications—from wrist watches to luggage tags—are taking advantage of the products’ sunlight readability and lightweight, flexible display technology.

Here, we catch up with him to discuss building careers and companies of quality and significance.

Sri Peruvemba: You have built one of the strongest display companies in the world, and it continues to grow nicely. Since you became chairman/CEO, what steps have you taken to make all of this happen?

Johnson Lee (JL): Well, I don’t think we are one of the strongest display companies in the world. We are still relatively small, with around NT$20 billion in sales revenue. We strive to grow our electrophoretic display technology to replace printed paper in a variety of applications. Since stepping in as the chairman/CEO of E Ink, we really stress the importance of innovation and collaboration across different divisions and continents. As you are aware, the majority of E Inkers are scattered across the US, Taiwan, and China, and it is vitally important that we work as a team to develop the latest and greatest ePaper displays and maintain our leadership position.

Sri: Let’s go back to the beginning of your ePaper journey. You were personally involved in the acquisition of E Ink in 2009. What was your vision then for the emerging technology?

JL: It was a blessing to be involved in the merger between E Ink (E Ink Corporation, Massachusetts) and Prime View International (PVI, Taiwan). There were lots of greatly talented people at E Ink, like you, Sri; and for me, with a background at PVI, it was exciting to have the opportunity to become one family with E Ink. Before the merger, E Ink and PVI had a supplier and customer relationship, and we had worked closely with E Ink. So, we knew some of the folks at E Ink quite well. The vision at E Ink and PVI has always been “E Ink on every smart surface,” so sharing the same vision made the merger a bit easier. Even today, the same vision is shared across the combined companies.

Sri: What is your future vision for the company?

JL: Get E Ink everywhere, and there are lots of opportunities that await us.

Johnson Lee
Chairman and CEO of E Ink Holdings
Sri: Your first success was with eReaders, followed by mega success with ESLs. How did you decide to bet on ESL?

JL: Well, Sri, we had to find another application besides eReader and reading applications. It is just part of the company’s growth and diversification strategy into different applications. It so happened that ESL took off faster than other applications. We always talk about the dream of getting E Ink everywhere, and getting into ESL was just one step en route to the many applications we are pursuing.

Sri: What is your favorite application for ePaper, even if it is not yet a commercial success?

JL: Sri, this is a super hard question to answer, because it is like asking who’s your favorite child? Probably the eReader application is my favorite, because the first one is always the hardest to make it to the market successfully.

Sri: Since acquiring E Ink, what changes did you make to the entire global organization that made a difference?

JL: We had set up incentive plans where we stress the importance of innovation and collaboration, and where we reward E Inkers with results tied to the overall objectives and key results (OKRs) goals of the company.

Sri: SiPix was a good acquisition for you. It allowed you to develop tri-color displays for emerging applications. Tell us about that.

JL: It was a blessing to have the SiPix team join the E Ink family, and we share the same goals of getting ePaper everywhere. To have more talent joining E Ink to grow the market together was great. For the three-color ePaper displays, it was a great collaboration effort between the California team and the Boston research team to make it happen.

Sri: You have taken bold steps to put in place investments that will support your growing business. Tell us about the factories and capabilities you have built globally.

JL: We have two FPL [Front Plane Laminate—the most important layer in an electrophoretic display] lines: one in Massachusetts and the other in Linkou, Taiwan. We are adding an FPL line in Hsinchu, Taiwan, to start production this month, and we will have two more FPL lines in operation by end of Q1 in 2022. We will add another line to increase our capacity by the end of 2022, so we will have a total of six FPL lines in operation. Also, we are investing in PI (polyimide) materials, which is a key ingredient in flexible displays. Currently, we have a small PI production site in Hsinchu, Taiwan. We plan to expand into a larger PI materials factory in Yangzhou, China, and expect to be in production by mid-2023. We aren’t expanding our module factory; instead, we are building an ecosystem for ePaper modules, and currently there are eight module partners, including Holitech, Visionox, BOE, and Innolux.

Sri: You personally led most of the IP and royalty agreements with pretty much every major display company in the world. What did you learn from that experience?

JL: It was something that needed to be done because Hydis (E Ink’s LCD subsidiary in Korea) didn’t have next-generation LCD fabs to compete. The key was to have great support from the board members to make it happen.

Sri: Eating healthy is a theme with you, correct? Weren’t you the first to introduce all-organic food in the factory cafeteria in Yangzhou, China? How did that come about, and what was the feedback?

JL: We strive to make E Ink a great place to work, so naturally we must take care of our people. Offering healthy food is important because back then, there were food safety concerns in China. When the employees learned about the benefits of organic food, they informed their friends, who in turn ordered the food from the company.
sought employment with us.

Sri: Who are your mentors? What motto helps you succeed?
JL: Sri, you, Russ Wilcox, C.C. Tsai, and many others at E Ink were like mentors to me. Our customers are like mentors to me, Rick Ratley at [Amazon] Lab 126, for example. You all have taught me many things in life and the importance of having passion and delivering great products to the market. The importance of creating a win/win situation for E Inkers, shareholders, customers, and suppliers. Always think of others before thinking from your own perspective.

Sri: What is your advice to entrepreneurs that want to build a company in this industry?
JL: Being an entrepreneur is tough. You got to have a great team that shares the same vision and understands the importance of P&L. Making a profit is vital, because you can't always raise funding when the market is dry or when you happen to hit a down cycle.

Sri: If I (or a new entrant to the job market) interviewed for a job with you, what are three questions you might ask me?
JL: I am not very good with job interviews, but if I were to ask you three questions: 1. I would ask you how you will market E Ink technology in architectural applications? 2. How many infant car seats are in California? 3. What is the most challenging issue you had to deal with?

Sri: Currently there is a supply shortage for various materials and components. How are you managing in this environment?
JL: It’s been a tough year for electronics companies around the world due to COVID. The shortage of IC components has affected us as well as everyone else that uses them. We have been working closely with IC design firms as well as foundries trying to secure enough chip sets. Luckily, E Ink has an investment relationship with IC design firms, so our situation is slightly better, but it’s been a challenge.

Sri: E Ink has always had a green/environmentally friendly theme. Tell us more about your latest initiatives.
JL: E Ink has pledged to be RE100 (a global initiative to use 100 percent renewable energy) by 2030, and our goal is to be RE10 globally by next year, which we believe will make us the first display company to reach the RE10 milestone. We also applied to join “The Climate Pledge,” where we are committed to achieve net zero carbon by 2040. The Climate Pledge is co-founded by Amazon, and we are very committed to being a green company and a responsible global citizen.

Sri: Thank you, Johnson, for taking the time to talk to ID magazine and for all your support of SID. I wish you and every E Inker all the success in 2022 and beyond as you achieve the vision set out for your company.

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