

Venture Analysis of the Livescribe Pulse Pen

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Introduction

As a venture capitalist, I chose to examine the investment potential of the Livescribe Pulse Pen (LPP) which we use at our community college to accommodate students with disabilities. Although I understand the initial value of this product, I wanted to determine the market potential for this venture beyond the initial purchase. For example, was the product a one time purchase or was this company worth investing in? If rated worthy of investment, I could then use this analysis to create a product pitch. To make this determination, I used the CUBE analysis and De Coster and Butler's assessment criteria to analyze the potential of this venture.

The LPP is a digital pen with audio capability and computer compatibility. Users can capture audio while writing with the pen and then upload both the text and audio files to a computer. Livescribe built their product by combining a medium that has endured throughout the years with new technology. They believe people need pen and paper to be creative and need computing technology to connect and collaborate.

Using the CUBE analysis, I investigated the company's background, market, products, services, buyers, global focus, and competition to determine the potential of the Livescribe Pulse Pen (LPP). After, my initial investigation, I used De Coster and Butler's criterion to solidify my decision.

Background

EVAs can determine where companies are going by looking at their history and team structure. Livescribe was started in January 2007 in Oakland, California and they launched their first product, Explore Tech, four months later. In 2008, they launched a new product, the Pulse Pen, which was demonstrated on TED (LI, p.3). They followed this success with a "developer

platform launch” in May, 2008 (LI, p. 3). In July 2008, the company went national and then global two months later in order to cover the “Asian/Pacific Market” (LI, p.3). In 2009, they became MAC compatible; thereby, opening up the market to a new set of customers.

Livescribe’s achievements include “a breakthrough low-cost mobile computing platform which includes the award-winning Pulse smartpen, dot paper, applications, Livescribe Desktop software, [an] online community, and development tools” (Livescribe About). They received recognition and awards for their innovative products “including Popular Science’s Best of What’s New 2008, Popular Mechanic’s 2008 Breakthrough Award, and MacWorld’s Best of Show in 2009” (Livescribe About).

Livescribe’s team consists of nine key players with backgrounds in business and technology. They have an ongoing partnership with the “Anoto Group [who] is the world leader in Digital Pen and Paper technology and inventor of the first commercialized Digital Pen and Paper system” (Press Kit).

Livescribe’s background, team and partnership show that they have a solid “entrepreneurial background” consisting of partners with a combined expertise that will lead them in new directions (De Costner, 2005, p.538). Therefore, they have the “educational capability and industry-related competence” to succeed (De Costner & B, 2005, p.538). Their strengths include years of research, a solid team and international expertise. This combined expertise led to the development of the current product, the Lifescribe Pulse Pen.

Products and Services

The Livescribe Pulse Pen is learning technology that combines an e-product with a new platform called “paper-based computing” (LI, p.3). The LPP is a pen and a digital recorder that

records sound and text; then, it “links the two together” (Gizmodo). Users can “access audio by tapping parts of [their] notes” and “upload information to [their] computers” (Gizmodo).

The LPP uses a micro camera to record the patterns of dots on specialized paper using dot technology called the “Dot Positioning System” (LI, p.16). The dot patterns show where writing appears on the page and categorizes text and audio files like a filing cabinet. Each place on the book has a “page address” which shows where the information is located (LI, p.17). The LPP uses JAVA programming language for all applications (LI, p.18).

The dot paper has “controls on the bottom [with a] menu system, and speaker volume” (gizmodo.com). Users use the controls by clicking the paper buttons to record, stop or listen. The Pulse Pen has a “mobile computing platform that connects the paper world [and] the digital world” (LI, p.2). Livescribe claims their product promotes “productivity, learning, communication & creative expression” (LI, p. 2). Livescribe offers services, content and an infrastructure.

Livescribe’s original product was a listening device for children called Explore Tech that users could touch to gain information. Today, the product has advanced through six stages of development to include listening, reading, speaking and writing features (LI, p.3). It was originally marketed to children; however, as it moved through the stages it grew to include all ages. Today’s model is called the “Pulse Smartpen & Livescribe Mobile Computing Platform” or Livescribe Pulse Pen for short (LI, p.8).

Other product features include a piano, translator, calculator and “quick commands” that can be accessed by the pen (LI, p.19). Currently the pen costs between \$169 and \$199 depending on memory capacity. The LPP comes with its own software called the “Livescribe’s Desktop software” which enables users to upload recorded information (gizmodo.com). Hardware

features include speakers, a microphone, USB connection, and a “rechargeable battery” (LI, p.13). Accessories include headphones, and a recharging cradle (LI, p.14).

Livescribe developed its initial product into a larger venture consisting of an application store, an online community and a set of developer’s tools. Users can purchase a software application called MyScript that changes handwriting to text in Windows and Mac environments (Myscript). Furthermore, users can buy education, utility, entertainment and music applications (Gizmodo). Livescribe’s move into product extensions and applications connected the LPP to other products and users assisting the company’s viability and future potential.

De Coster and Butler (2005) suggested that innovative companies like Livescribe can be risky. However, Livescribe’s history demonstrates they are a company with a solid background. Furthermore, their product grew from a basic digital pen to include extensions, applications and a digital community. Although De Coster and Butler (2005) suggest a complex product can be a risky investment, this product showed resilience with over a decade of growth (p.536). Their solid technological background also diminished the element of technological risk. Livescribe combined known technologies like the digital pen, audio features, camera, and USB port with current Windows and Mac operating systems further reducing their risk by using technology that already had a solid foundation. Furthermore, Livescribe’s development of accessories will lead to customers buying continually from this company through “product extensions” (De Costner & B, 2005, p.538). Overall, their future potential is promising.

Future Potential and Development

An EVA must go beyond the analysis of a solid background and investigate where a venture may be going. Livescribe demonstrated a promising future with its foresight into

applications and development tools which mirror tools already connected to mobile phones and social technology. These development tools encouraged users to create their own applications. Furthermore, Livescribe created downloadable applications including one which allows users to print their own computer paper (with dot pattern)” (LI, p.38).

Livescribe’s understanding of future markets was apparent in its new “tool that embeds handwritten notes and audio recordings as Flash videos, called “pencasts,” within any Web site or blog”(PK, 2009). Users could create and play back a written and audio demonstration allowing viewers to watch the page recreate itself while listening to the accompanying audio description. Users could upload their pencasts to share with others in the online community: “over 500,000 unique pencasts have been uploaded to the Livescribe Community since [they] officially announced the technology just over a year ago” (LB,). Pencasts are a “new online communication tool, allowing anyone to digitally share notes, ideas, drawings and conversations from pen and paper online for the first time” (PK, 2009). Overall, Livescribe captured the essence of web 2.0 by allowing users to create, communicate and collaborate with its product.

Target Market and Buyers

Livescribe’s target market includes both a national and global focus. Originally, they targeted students to enable them to take notes with the pen and record lectures simultaneously. However, their focus now includes both educational and business clients such as “students, journalists or even doctors” (Gizmodo). Livescribe focuses on the K-12, higher education and business sectors. Users usually buy for themselves. Their current global focus includes Asia and the Pacific. They have products available in several countries and all their products can be

shipped anywhere in the world. The LPP can translate into many languages and can be used in English and foreign countries that support technology.

Overall, Livescribe expanded their market from national to international and from students to professionals. Therefore, Livescribe products appear to “satisfy [current] markets” and future markets (De Coster & Butler, 2005, p.537). They remain focused on what people need today and where people are going with Web 2.0 technology. Their future potential and chosen target markets show the innovative nature of their venture. They developed a niche in the market which will lead to a stronger possibility of a stable future. However, despite Livescribe’s innovative nature, investors must consider the competition.

Competition

EVAs must consider what else is available and why one product is different or better than another. Livescribe’s diverse capabilities as a “multimodal computer [that] enhances reading, writing, speaking [and] listening” differentiates it from other digital pens on the market (LI, p.11). Livescribe claims to write, record audio and “unlike digital pens, [it] is also capable of downloading and running applications” (FAQ).

However, Livescribe’s market competition includes the Tablet PC and the Boogie Board Tablet which both allow users to digitally capture writing (Myboogieboard.com). These products also include computer capabilities and larger screens. Another competitor, Hitachi, created a digital pen that does not need the “special paper, touch pads, or ink” of its competitors (Myboogieboard.com).

However, Livescribe’s competitive advantage includes their move from a digital pen to other areas including their current application store and technological community. They took

their product to the next level meeting the demands of today's market which includes applications, creative development potential and endless collaborative possibilities. Two initiatives include their campaign encouraging developers to create new pen applications and their technology embedding pencasts in current social media like Facebook. As De Coster and Butler (2005) suggest, Livescribe has achieved "an identifiable market requirement for the product" which meets the current needs of technology users (p.537).

Other Obstacles

In order to back a product wisely, EVAs must look at possible obstacles or limitations. For example, the LPP is only useful for those who like to write instead of type. Therefore, there must be a market of users who prefer writing by hand instead of typing, perhaps students who may not want to carry a laptop to class.

Second, there may be physical limitations to the product. For example, LPP's "settings can only be adjusted by the interfaces printed on the inside covers of notebooks" (Gizmodo). Also, the LPP is larger than a pen so "[users] have to hold the pen relatively high [to] not block the sensor" (Gizmodo). De Coster and Butler (2005) suggest a company should have a team of experts to address any possible "technology risk" which Livescribe does (p.535). Therefore, potential investors may choose to invest in this product despite its short comings because of the greater benefits. For example, the LPP is cheaper than a tablet, smaller, and lighter. In order to make an informed decision, I evaluated the benefits and limitations of the LPP using a second assessment tool.

De Coster and Butler's Analysis Tool

I used De Coster and Butler's (2005) assessment criterion which includes "technological and commercial risk; level of product innovation; how it satisfies a market, timeliness, longevity, product extensions, and entrepreneurial background" (p.537-538).

As an EVA, I gave Livescribe the following ratings for each criterion (De Coster & Butler, 2005):

- Technological and commercial risk: I gave a score of 10/10 because they have an "established product [and] satisfied customers" (p.539).
- Level of Product Innovation: I gave a score of 10/10 because they are "very innovative [and] satisf[y] a well-known market need" (p.539).
- Market Criteria: I gave a score of 10/10 because they have a strong customer base with a growing online community of users and the pen with its applications appears "to meet the requirement of customers fully" (p.539).
- Market Criteria: I gave a score of 7/10 because the product is in a growth stage particularly by becoming MAC compatible and by encouraging new developers. However, the application store is in Beta. Therefore, it may be too early to determine actual growth in this area. If the application sector is successful, I would change the score from 7/10 to 10/10.
- Product Extensions: I gave a score of 10/10 because this is Livescribe's main area of growth with its application store, computer software, development tools and online community. They have moved from their initial product to a "family of products" (p.540).

- Product Extensions: I gave a score of 5/10 because “demand may be variable” (p.540). Although there are similar products, they do not have all the features of the Livescribe’s product. Demand may change if similar companies move directly into competition.
- Entrepreneurial Background: I gave a score of 10/10 because Livescribe received numerous awards and recognition for previous products. Furthermore, their partnerships have led to a knowledgeable team.
- Protecting Competitive Advantage: I gave a score of 7/10 because they use technology patented by Avanto, one of their partners which means they do not own the patent to all of their technology.

De Coster and Butler (2005) point out that their assessment focused on the technical side of ventures; therefore, they used a scoring tool to determine the actual value (p. 540). They suggest the sum and weighted criterion value should both be over 50 to deem the venture worthy of risk. The sum of my product was 81.5 and the weighted value is 2450 which makes the investment worthy of risk.

Conclusion

Overall, as an EVA, I looked at the value of the LPP to education and determined it was a good investment. I evaluated the venture with regards to the company’s background experience, customer needs, current product value, future potential and shortcomings. To further support my position, I used De Costner and Butler’s criterion to determine if this venture was worth the risk. I concluded that Livescribe has a valuable product with the potential for further growth particularly in the areas of applications, development and online communities. Therefore, I will

probably create a product pitch for this venture showing how it can benefit the students at my college educationally.

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