

# Lean Innovation Framework to Fuel Startups

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**Abstract**—This paper discusses an Innovation framework that helps understanding customer oriented perspective to fuel lean startups and to avoid pitfalls. This uses google glass analyses as an example to help understand framework.

**Keywords**— *Innovation, Lean Start up, Digitalization, Product Life cycle, Innovators method.*

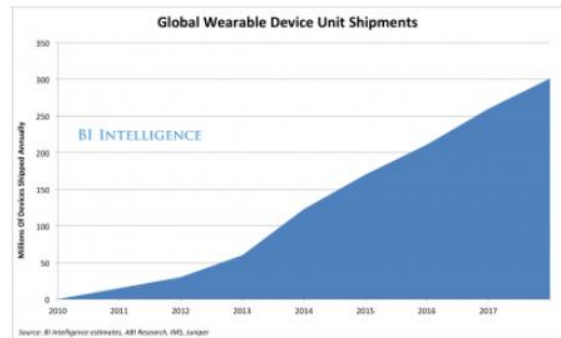
## INTRODUCTION

In this digital age of globalization, economies, facing international trade and other challenges have made innovation a practical survival strategy for businesses. Innovation often results from an idea to further satisfy customer raising expectation, understanding the seemingly impossible ever-accelerating consumer expectation economy has become critical to the change and how businesses react, respond and innovate.

Innovation, as it pertains, can bring evolutionary change which is defined as sustaining innovation to bring incremental improvement in factors to mainstream customers e.g. improved version of the tide. In contrast, Innovation can also bring a revolutionary change which is defined as a Disruptive innovation which takes the time to enter into mainstream customer revenue but eventually improves and displaces existing technology or industry e.g. Internet revolution or Changing Auto industry with self-driving cars or big data with intelligent analytics. This creative destruction not only pertains to product/services but it is changing world's culture with globalization. A kid sitting in the US can learn from teachers across the world, Thai schoolgirl can mimic Lady Gaga, kids can see their grandparents every day sitting in the different corner of the world, people can experience and watch Super Bowl as if they are in the stadium. Although, with this advent of globalization and creative destruction there raised many questions like if this is subverting local culture? From an eye of an economist, are market exchanges and aesthetic quality friends or foes? However, above all, creative destruction has improved quality of the people's life and increased consumer expectations for more.

### I. TECHNOLOGY ADVANCEMENT AND GOOGLE GLASS INTRODUCTION

Technology is changing faster than what we think. Wearable technology is grabbing much attention, and many named players like Google, Apple is throwing their darts by creating destructive innovation. BI Intelligence is betting big on the new crop of eye or wrist wearables which may change consumer perception of technology. According to BI Intelligence, there will be 300million annual devices that may be shipping globally (Figure1).



BI Intelligence

Figure1

In 2010, Google X team with the aim of serving humanity by solving their problems, challenging status quo, taking a huge leap of faith into futuristic technology began development of one of their project called 'Google Glass.' First of its kind of wearable eyewear computer which can interface with phone device and sits on top of the right eye. It displays 25-inch screen with a miniature camera, voice modulation, GPS and other fascinating bells and whistles with the aim of creating an unobtrusive natural and pervasive device which can remove the distractions of other available technology. Google team introduced Google Glass with early adopters in the wake of doing beta testing which was quite promising and gave Google lot of opportunities to improve the product but at the same time brought several concerns of privacy and intrusion into limelight which people are not ready yet to accept. Breaking consumer phycological barrier seems to be a big hurdle in the time to come for Google team. In the midst of all the challenges and opportunities, Google grappled with growth asked to come up with options for distribution strategy for the product either directly through the online channel or open platform to allow for any eyewear or negotiating a partnership deal with leading eyewear.

So even with the cool technology why so many challenges and hurdles? The solution is not going to be a simple, as each has its pros and cons. team should be spending time on consumer segmentation and marketing mix strategy, being a technology innovative product company going into a different eyewear industry may present in itself other industry specific challenges. We will explore and analyze various options using frameworks on how we can focus on creating an open innovation platform collaborating with partners and allow compatibility and sustainability.

## II. INNOVATION FRAMEWORK

Before we delve further we need to understand an innovation framework (Figure2). This talks about various stages that should be used in sequence to create a lean product innovation start up.

First stage of Insight talks about ideation leveraging experimentation, observation, networking, and questioning. There could be many great ideas and innovation but not necessarily that every innovation is success in terms of generating revenue and profitability.

Second stage main objection is to find the pain point of customers, what problem we trying to solve? No product sell in vacuum, there has to be a customer who is willing to pay the price. Customers buy real benefits which is the core of every product and augmented benefits which are added values. So focusing on these benefits and doing market research about market and industry at both micro and macro level would drive open innovation. Some of the questions could be-Is market large enough? Is this push (are you trying to push your products to customers) or pull (Customer is asking about your product) type of innovation? Can I clearly identify my customers? Is the industry growing?

Third stage is where design thinking comes in place to create a minimal viable product. Instead of developing full scale products, leverage multiple virtual prototypes to explore many solution dimensions, then iterate on each solution to develop a minimum viable prototype and eventually a minimum awesome product – one that truly delights on a particular dimension. Minimum Viable Product is the minimum set of features your product needs to be useful. This is where we use agile methodology to keep building, measuring and learning in iteration. The goal is not to produce more efficiently but as quickly as possible as we say fail fast and fail cheap.

Fourth stage is to validate your readiness to go to the market. Once you've nailed the solution, you're ready to validate the other components of the business model, including the pricing strategy, the customer acquisition strategy, and the cost structure strategy. There is a business model canvas (HBR) which can be used to justify various components and ecosystem of business activities.

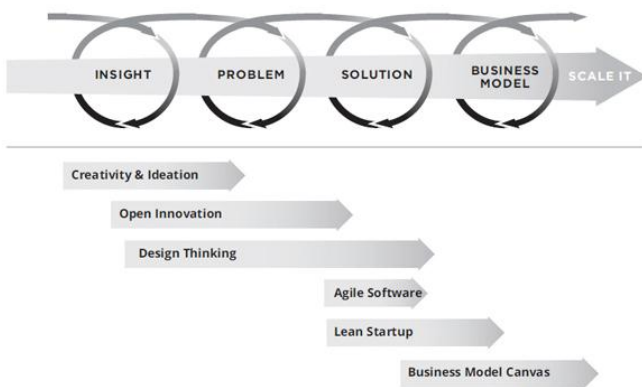


Figure2

## III. GOOGLE GLASS ANALYSES

Google team has a creative insight (based on our earlier framework) to come up with really unique idea. Google created the product and started to see a good response. Wait, what about the problem identification phase? Let's see. Technology companies usually goes through a lifecycle of a consumer (Figure3) anytime new technology product comes in the market there will be some fashion innovators and early opinion leaders; they will be the once buying the first, they will be the once standing in a long queue, they are the early adopters.

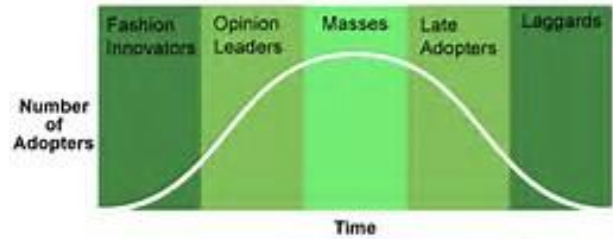


Figure3

In the case of Google, they are the beta testers for this new product; these are the people who appreciate technology. Of course, the early reaction will be positive; there will be a wow factor to it. Companies usually improve upon the market, capitalizing these folks before going into masses where the revenue lies. Time from early adopters to the masses could significantly vary based on the product, market, and industries. One most important factor in determining the cycle time to reach to masses is how the product is benefiting the consumer, what unmet need product is satisfying, what is the urge, what significant advantage/benefit that product is providing over the existing product. So why the consumer phycology did became barrier? Why did we not foresee as part of our framework? one can clearly argue they have missed doing market research but at the same time it's an innovator's dilemma since it's a new technology and market was undefined. Google wants this product to be in the hands of mainstream people or consumers as fast as possible. Since there was not much urge by the consumer this product became a push model. Ansoff product matrix (Figure4) talks about various strategies companies adopt based on the existing or new product or Market.

	Existing Products	New Products
Existing Markets	Market Penetration	Product Development
New Markets	Market Development	Diversification

Figure4

Google glass is in the fourth quadrant of the Ansoff product matrix trying to diversify their portfolio with new product and trying to find a new market. Some would argue that Google already has an existing market but in this case, since it is a disruptive innovation of a google glass that still needs to find the mass consumer market who is willing to buy this product. The question is how soon and what is the correct distribution channel? Is it Direct online? Should we go for Open Platform? Should we do Partnership? The issue is not just deciding the distribution channel but rather how should we generate revenue and bring the product to the mass population. The issue is how should we attract large consumer market to buy this product. As per product lifecycle (Figure5) to generate high revenue and higher profits, the product needs to be in the growth phase for which marketing strategy needs to build and jibe along with the distribution strategy.



Figure5

#### IV. OPTIONS AND SOLUTION

As google were trying to solve various challenges. One of the challenges was distribution; first option is to enter eyeglass and fashion industry to sell their google glass. Both these industries are in itself a holy grail. Going into that space would be like forging into a new industry. Second option of distributing directly under Google supervision and selling this product online will certainly have a higher control but also various capabilities and resources would need to build on to succeed. The third option is to make compatible glass which can fit with any compatible manufacturer's eyeglass frames this may give the advantage to capture higher market share and comprehend's Google's technology openness but may lose some control over how manufacturers are moving

inventory over to consumers. The fourth option is partnering with high volume eyewear manufacturers; this will generate them a royalty of net sales, but this would have to be very thought agreement. Some of the factors include what kind of market demand exists for the product, what needs to be the future terms and conditions, what should be the marketing support, any exclusivity condition, duration? Etc. Eyewear industry has become a fashion industry and projected to grow at a rate of 4% with 2.2billion people would be wearing eyeglasses by 2020. There is enormous potential to partner with this industry in the long run.

Just like no one solution fits all need for promoting growth, here to strive growth we suggest to take two prong approaches. One, focus on core strength, in this case technology to improve and enhance the product and use open platform. Google Glass team should go beyond their early technology adopters for their market testing. As part of marketing strategy create customer segmentation based on demographic, physiological or behavioral patterns and ask their opinion and try to find and accommodate their unmet needs/desire with eyewear glass technology and spend on marketing and advertisement to create awareness and mitigate a major concern for privacy and intrusion. This is essentially our second step in the framework. Second, implement open collaboration with partners to ensure quality and win-win partnership. This partnership along with open platform could bring a variety of styles with smart technology to the market at the great speed with more sustainable business model.

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