

Abstract:

In 1992, John Sylvan and Peter Dragone started the company Keurig with a simple aim of serving fresh gourmet coffee to Americans, which was only being sold in niche markets and local farm stores where it was grown. They believed that a coffee machine should be able to brew consistently without any hassle and the experience of coffee making must be seamless. This term paper aims to understand with a structured engineering lens - the outstripping innovation strategy adopted by Keurig. The **hypothesis** on which the term paper is that a single profitable product generating revenue and increased customer demand gives a company the 'room' to test ideas and to increase its span of dominance with improvements in all following aspects related to that industry:

- . Products,
- . Packaging,
- . Supply Chain
- . Sustainability
- . Internal Value Chain – employees, skills, infrastructure

It's impossible to predict what the economic future holds, or more specifically what products or business ideas are going to succeed, and so the company must make continuous improvements in all areas and derive a set of strategic principles which internally leverage strengths and externally capture opportunities to create profits.

The company has focused on providing high quality services and products with continuous innovations in all fields of coffee industry domain – cultivation & processing , packaging, operations, supply chain, distribution and consumption. This term paper would focus on the technological and supply chain innovations of Keurig, the causes of these innovations and the methods which can help the reader understand the innovations in a structured way. Also the term paper would bring detailed evidence that Keurig has made its profits while respecting the environment and community which indirectly get affected by company workings.

Introduction:

Company Background:

In 1993, Keurig had approached GMCR(Green Mountain Coffee Roasters) about developing a single-cup coffee brewing system, they were the first investors in the nascent company. The partnership between Keurig Coffee and Green Mountain Coffee Roaster provided the two firms with leverage core advantage as well as competence core advantage. Keurig benefited as it was able to concentrate in its core business of brewing fresh coffee without worrying about marketing and packaging issues. The company also benefited from the well established distribution channels of Green Mountain Coffee Roasters. The packaging of the firm's product was done by the partner, thereby enabling the firm to reduce cost of packaging. On the other hand, Green Mountain Coffee Roasters also benefited from this partnership. They managed to sell fresh brewed coffee to their customers and they managed to concentrate in the business that they were good of packaging and selling coffee brew products. The firm benefited from the loyalty of brewed coffee customers that Keurig had, thereby it managed to increase its sales from this partnership. Keurig Coffee entered into a chain sharing activity with Green Mountain Coffee Roasters and it brewed the eight brands, produced by Green Mountain Coffee Roasters,

on its behalf. On the other hand, Green Mountain Coffee Roasters packaged its Arabica coffee beans in Keurig's patents and also use K-patent cup to distribute its products.

From this arrangement, the companies reduced the cost of production, thereby increasing their sales revenue. Secondly, this reduced cost of distribution as each company could distribute products on behalf of the other company. The packaging cost was also reduced for the two companies by benefiting from their chain sharing activity agreement (Harland, 1996). Sales volumes for the two firms increased, as they were able to benefit from the market share of each other. The promotions of the new products were also reduced as the firms shared existing markets and there was no need to invest heavily in running promotion.

In 1997, Green Mountain Coffee Roasters became the first roaster to offer coffee in a K-Cup pod for the Keurig Single-Cup Brewing System. In 1998 Keurig delivered its first brewing system, designed for office use. The launch of the first K-Cups with Green Mountain Coffee helped GMCR begin to further compete with the ubiquitous presence of Starbucks, by allowing people to brew their own single servings of premium coffee. From 1999 – 2006 acquisition licensees, Tully's Coffee, Timothy's World Coffee, Diedrich Coffee, and Van Houtte coffee brands. In 2009 agreement with huge brands like Dunkin Donuts & Starbucks to sell their ground coffee beans in K-Cups. In 2014, Keurig Green Mountain introduced the advanced Keurig 2.0 brewer. In March 2015, agreement with General Electric who announced refrigerators with fitted Keurig. Also, Keurig launched a line of Campbell's Soup (Chicken Noodle and Southwest Style Chicken Noodle) available in K-Cups. The machine brews beverages from The Coca-Cola Company and the Dr Pepper Snapple Group, in addition to Keurig's own line of flavored sparkling and non-sparkling waters and teas, sports drinks, and soda-fountain drinks

Literature Review:

I. Liu's Hierarchical value chain:

Market Needs :

In 1990, the coffee industry was dominated by drip coffee maker and big & noisy cappuccino machines used in Starbucks's cafés. The economic boom of 1990's had prompted many small business owners to seek venture capital from investing conglomerates. The brewing machine had not been revamped for a long 20 years and the following problems were prevalent:

- Costly Varieties of Gourmet Coffee
- Difficulty in Obtaining Gourmet Coffee in Regular Market (like Ethiopian Coffee)
- Low Shelf Life of Coffee
- Quality deterioration of Regular Coffee Brewing m/c
- Long queue waiting times of popular coffee shops like Starbucks
- Inconsistent taste
- Inability to decide the strength, quantity and temperature of brewing
- Inconvenience: early rising and carrying the coffee in a cup causing spillage
- Lunch hours spent on waiting in long coffee shop queues

Keurig Market Strategy :

1. For products

- i. Keurig Home/Office Brewers & K-Cups:

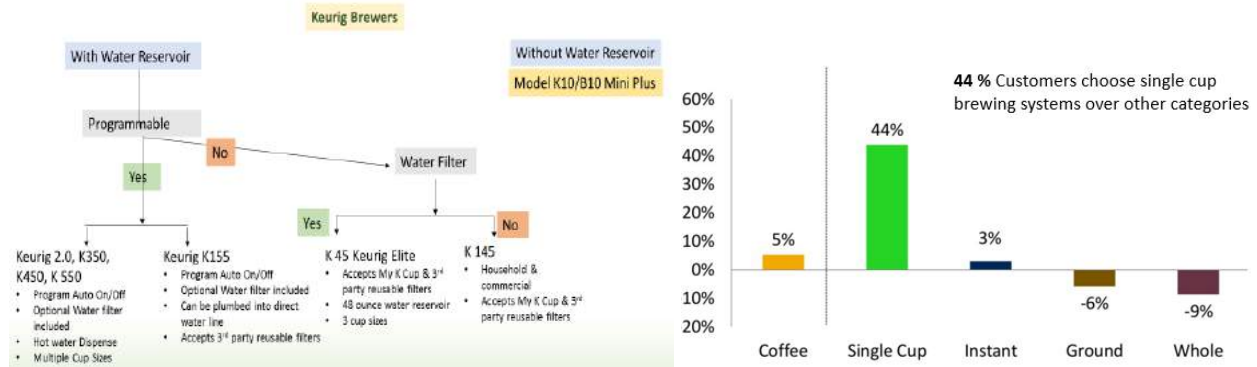


Figure 1 : Model of Keurig brewers with differentiation in each segment

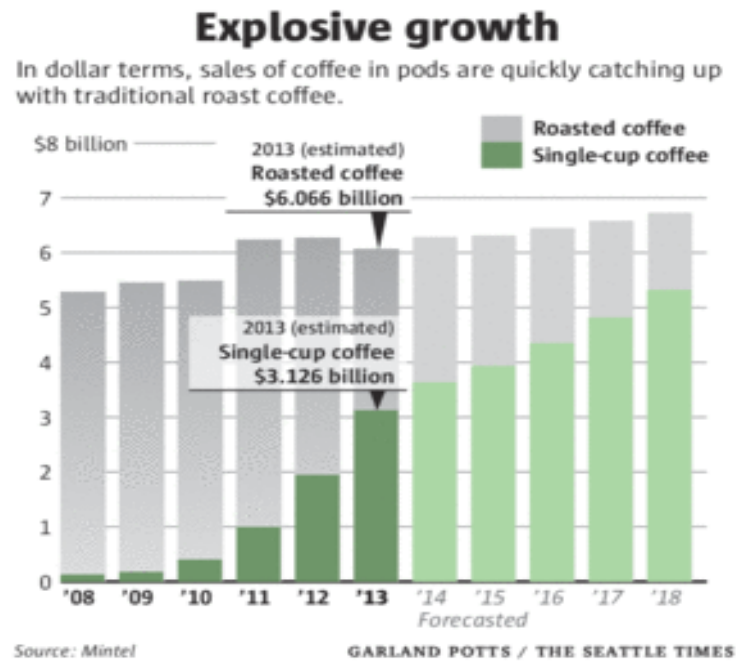
As shown in figure 1, Keurig believes in differentiating its products with increased services but maintains a level of functionality in every product. The K-Cups are used in all these models and all the models provide consistent coffee over several usages. The reason why Keurig focuses **on single cup** brewing systems is based on providing the best user experience. With two cup brewing the coffee drinker would be uncertain about when the water in the tank has been all used, and when the coffee would finish dispensing. A two cup brewing system would required larger carafe which would also hinder the sleek design of all its product, making them look big & bulky.

ii. Preparing different checkpoints within office coffee services(OCS)

The office market is dominated by Keurig products. There is a common misconception that coffee in offices made by Keurig systems would be expensive than the one made at home. But Keurig's focus on continuous innovation in distinct concepts for home market, and different packaging has helped to reduce costs for customers. Keurig has made the price of existing K-Cup at home be same as one of OCS market, which protects Keurig Authorized Distributors(KAD's) revenues by 'locking the deal' with office managers. This a strategy of fixed pricing with no decrease in service quality

iii. Market skimming for the brewer

Keurig focuses on premium market, the daily office goers, who are kept waiting in long queues, at nearby Starbucks café's for their urgent coffee in morning. Keurig tries to penetrate this high demand market with mid-price. The premium models cost \$299 which are mostly used in offices. They provide a simple user interface experience, faster dispensing , and convenience of self clean-up (*fit-it & forget it philosophy*). The basic model costs \$130, which outstrips Nespresso (which costs \$250) for home brewers and is cheaper than what a daily coffee trip to Starbucks would cost. The benefits involve definite value proposition, profitable pricing while providing high value to office goers and home consumers.



iv. For marketing

Keurig focuses on direct marketing through e-commerce & traditional retail demonstrations. Its marketing strategy can be divided into 2 parts :

- Short Term strategy with direct marketing by e-commerce to increase brand awareness through online advertising. It allows Keurig to sell the brewers & K-Cup together and spend less money on controlling distributors.
- Long Term strategy to develop traditional retail store and conduct in-house, mall ,grocery store demonstrations and spread awareness about the brand. It helps Keurig to expand market share online selling is not enough, building trust on the product

Keurig has tried to build a 'brand name' through adopting simple procedures product demonstrations. 'word of mouth' among office goers, and e-commerce selling. Keurig market research team understand the social psychological principle of social proof, which suggests that the more people spread positive reviews about the product, the more people would ultimately end up buying the product.

Part 1:

Relationship matrix

The following relationship matrix would help to clearly segregate the structure, drivers and strategies of innovation.

Product Innovation:

Keurig K-Cup brewing system with microprocessor controlled technology and airtight coffee pods(K-cups)

Structure
Primary Value Chain:

- Do-it within: Inbound logistics: licensing relationships with coffee market players, coffee bean growers, brewing machine parts suppliers.
- Outbound logistics: Expanded distribution for continual global demand
- Marketing/Sales Push: multi-channel distribution-grocery stores, specialty food stores, office coffee service, convenience & online stores.

Secondary Value Chain

- Do it within: own unique patented technology.

Drivers

Competition: Rivalry: beverage market is dominated by Starbucks. But market for single brewing machines is currently dominated by KGM in North America. There is no major threat of substitution. The substitutes like: vintage style drip coffee maker, coffee shops, flavored tea, cocoa are obsolete and not as fast as Keurig, thus fail to pose a threat. Keurig innovation strategy of continual innovation in all segments of coffee industry helps it to keep pushing for profit without worrying about replacements for its high value products.

Strategies

Keurig follows Sun Tzu's strategy of 'winning all without fighting'. Keurig has captured its market without direct competition with its competitors. It is already ahead of its competitors in expanding its brand offerings, both owned and partner brands, expanding in current channels, & internationally. With continual innovation philosophy it launched its new brewer technology in 2015 - Keurig 2.0 with recyclable K-Cup service. Keurig has been going with licensing agreements with Unilever North America (Lipton®), Perfect Iced Tea®, Good Earth® Corporation and Tetley®, Snapple Beverages. Starbucks Corporation and Associated British Foods plc which suggests that it has been influencing its competitors by being engaged with them in coffee business. Again, Sun Tzu philosophy of 'breaking the enemy's resistance without fighting' can be seen here where Keurig influences the major decisions made by its competitors by being a joint stakeholder.

Packaging Innovation

There has been a continual innovation in K-cups since the time they were invented in 1997. The latest packaging of K-cup has been given in Figure 2 below.

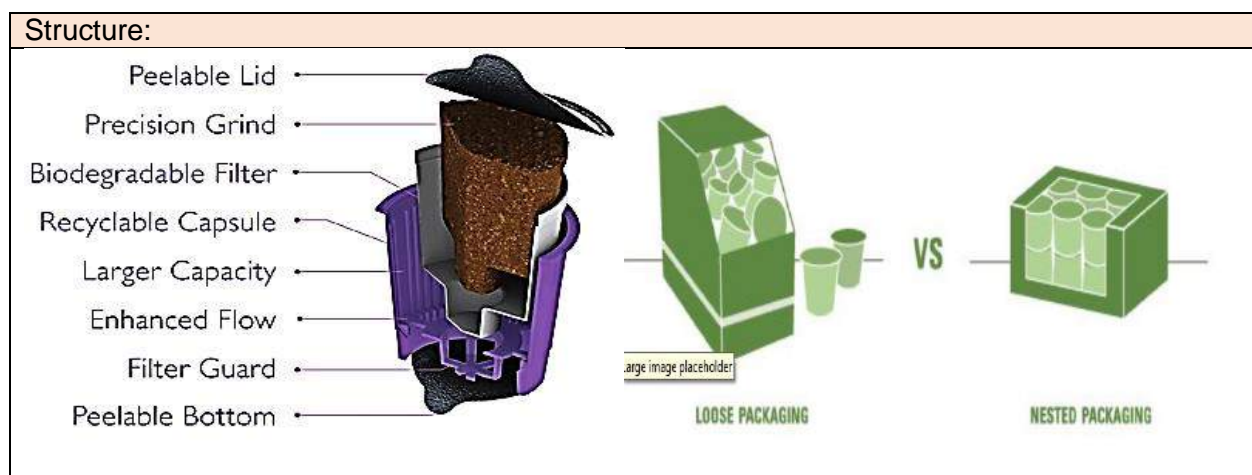


Figure 2 (K-Cup packaging)

The innovative design was the outcome of hours of brainstorming at Special Coffee Business Unit of Keurig which responsible for finding methods for reducing energy use and waste reduction. The SCBU came up with 2 design solutions : a **Nested Packaging** and **"My K-Cup" - a reusable filter assembly** for Reducing the Size of K-Cup Portion Packs which became a environmental waste burden in 2007

Strategies :

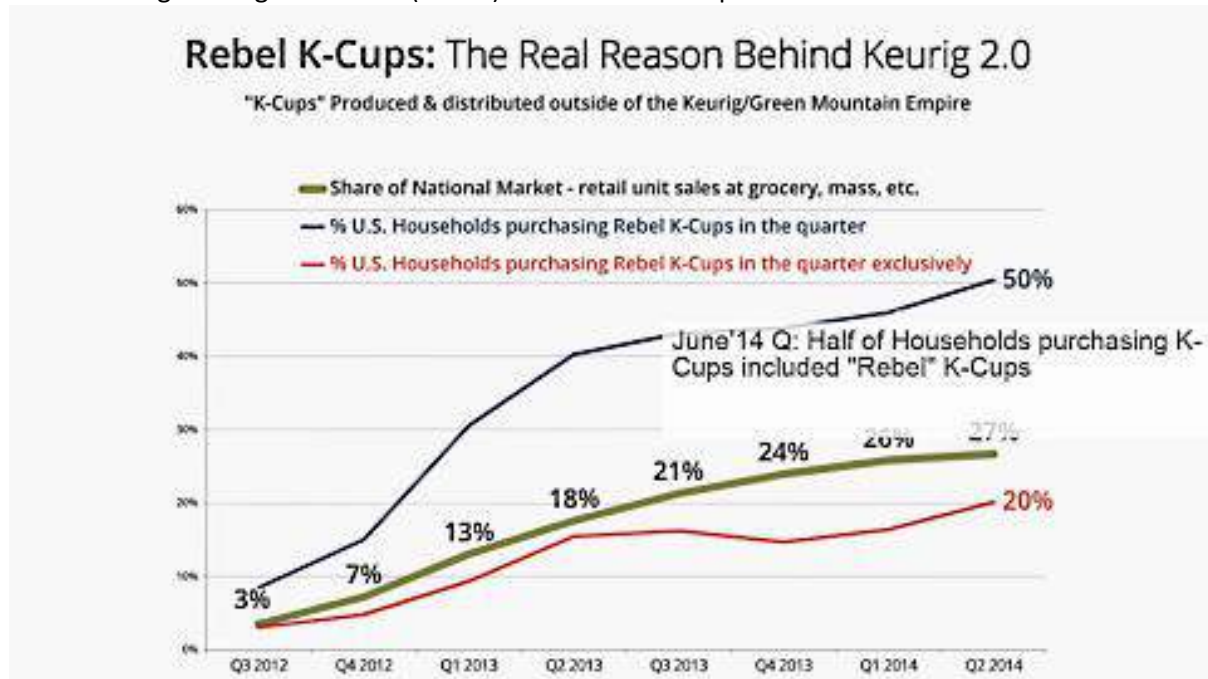
Nested packaging for K-Cups, reduces distribution-related greenhouse gas emissions by over 20%. The Keurig team also found that it delivers more than 90% reduction in transportation and warehousing costs when compared to loose packaging used by Starbucks & Nespresso. The introduction "nested" packaging for 12, 16, 18 count K-Cup packs reduced packaging size by 30% and decreased shipping-related greenhouse gas emissions by 20% as compared to loose fill.

Keurig advanced into 3rd innovation with respect to K-cups when their disposal became an environmental problem. In 2013, Keurig Green Mountain produced 8.3 billion K-Cups — enough to circle the Earth 10.5 times. The Huffington post and many other environmental activists started berating Keurig invention of K-cups altogether despite the numerous benefits and 15 years of flawless usage.



But with the strategy of continual innovation in all its segments Keurig decided redirection its focus on saving the environment of soil pollution caused by plastic which was earlier non-biodegradable. Hamburg & Germany banned the use of K-cups in government buildings, satirical videos were made with K-cups being projected as monsters , and a slogan **#killtheK-cup** became viral on Twitter & BBC News Feeds.

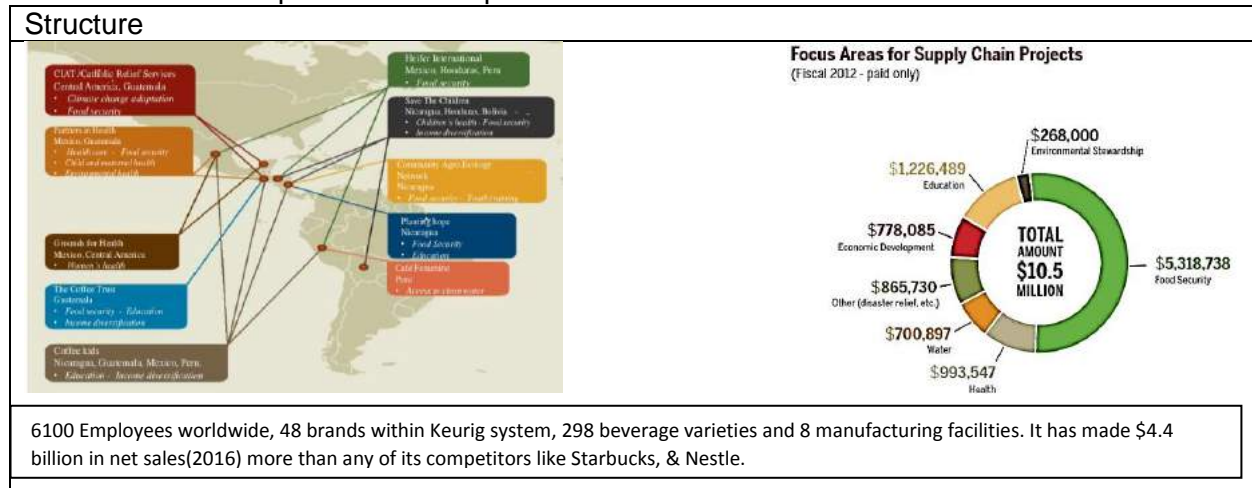
Breakthrough: Since recyclability is a complex issue, the Keurig team creatively thought about solutions by collaborating with others, including industry partners, communities, and consumers. By approaching the problem from three different angles: designing for recyclability, championing small item recovery, and driving continued innovation, Keurig grasped the opportunity for dominance again. In 2015 collaborated with **Resource Recycling Systems (RRS)** and mixed recyclable material at each of its 8 manufacturing facilities, to make recyclable K-cups. Keurig invented a whole line of recyclable K-cup options including recyclable K-cup pods, K-mugs and K-carafe pods which lead to its sales increasing again.



Supply Chain innovation:

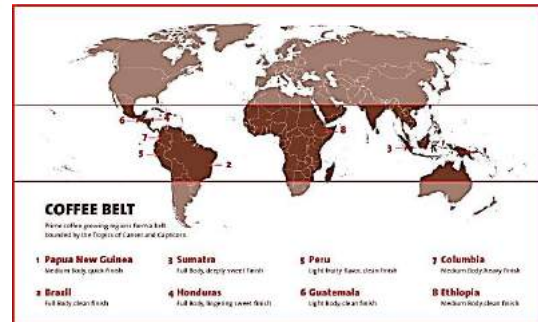
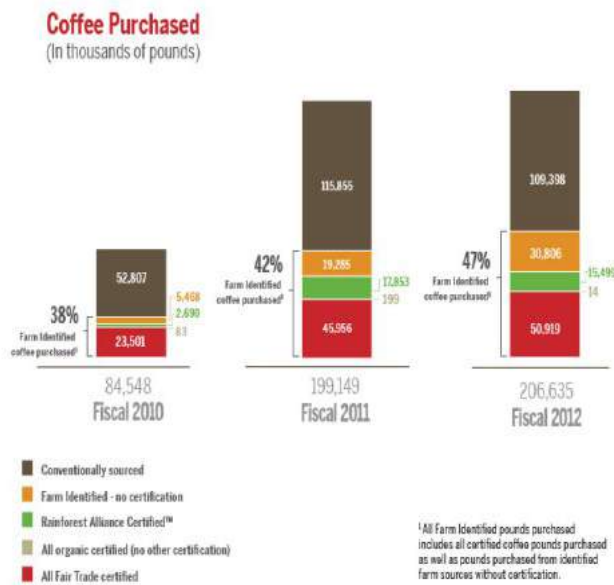
Keurig has a resilient supply chain and with innovative sustainable programs which no other competitor is employing. The following section would provide clear evidence that Sun Tzu's principle of "speed and thorough preparation", is applied by Keurig in making continuous innovation in its supply chain programs.

Resilient Supply Chain is built through two major approaches: supplier engagement, particularly with coffee farmers, and responsible sourcing practices. Keurig aims to provide its suppliers, their employees, and their communities with the skills and tools they need to build a foundation of resilience that will improve business practices and livelihoods.



The following innovations have made Keurig's supply chain projects resilient:

- Farm ID program** : this program helps Keurig to track the farms who produce its coffee, the method used to produce it which ultimately helps decision makers to make more informed decisions. This also aligns with Sun Tzu philosophy of 'know yourself and you will win all battles'. Keurig procures coffee from all continents of the 'Bean Belt' except South East Asian Countries & Australia. The Bean Belt : generally coffee is grouped into three major growing areas: the Americas, Africa, and Asia, within 1,000 miles of the equator



- ii. *Procurement from Fair trade certified coffee farms* : Keurig indirectly supports the communities which produce its coffee as Fair trade certification guarantees – fair price for farmers, environmental sustainability (without any harmful chemicals), wildlife and habitat conservation, safe and fair labor conditions, eliminates middlemen through direct trading, community development (scholarship programs, health care services etc).



The procurement from 'Fair trade certified' coffee farm has helped Keurig to make 68% of its coffee sourcing traceable. It has been staying ahead of Starbucks by sourcing 100% of primary agricultural and manufactured products according to established responsible sourcing guidelines.

Part 2:

Towards 2nd part of Hypothesis – improvements in internal value chain –farmers, training, technology, etc

Towards 2nd part of Hypothesis – improvements in internal value chain –farmers, training, technology, etc.

KGM's Theory of Change Methodology

A visual representation of the company's theories around how their supply chain projects and investments achieve their strategic sustainability goals.

A set of hypotheses, working left to right from investment activities to outputs to outcomes and impacts.

Highlighted set of hypotheses in "Theory of Change"

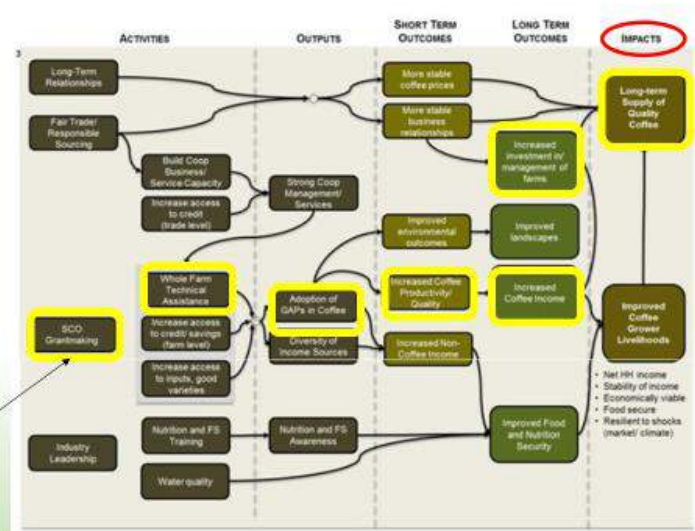


Figure 1. Green Mountain Coffee's Supply Chain Sustainability Investment Theory of Change

The document works as a set of hypotheses. The most informative part of this document is the "Impacts" section since it defines KGM's continuing goals: Long-term Supply of Quality Coffee and Improved Coffee Grower Livelihoods.

This term paper aims to look for concrete evidence to support the set of hypotheses composing the Theory of Change. Most of KGM's investment projects were less than 3 years old and could scarcely provide statistically significant results for the short term outcomes, let alone the long term outcomes and impacts. Also, since both the Theory of Change as well as the company's investment strategy had been evolving, their own work was unlikely to provide the proof they needed. The paper would focus on the Theory of Change as a set of hypotheses and provide statistical and longitudinal studies that helped back-up or "prove" that the hypotheses were indeed true for similar situations. It should be noted that certain portions of the Theory of Change did not make it into this research (so only few parts of the picture above have been marked yellow). This paper did not address "Long-Term Relationships," "Improved environmental outcomes," or "Improved landscapes."

Keurig postulates that grant making for a non-profit or NGO to give technical assistance to farmers will lead to smallholder coffee farmers adopting Good Agricultural Practices (GAPs). When the farmers adopt GAPs, this will lead to increased coffee productivity and/or quality. Increased coffee productivity and/or quality leads to increases in farmers' income and, in turn, increased investment in the management of their farms. With increased investment in their farms, KGM achieves one of its two over-arching goals—a long term supply of coffee.

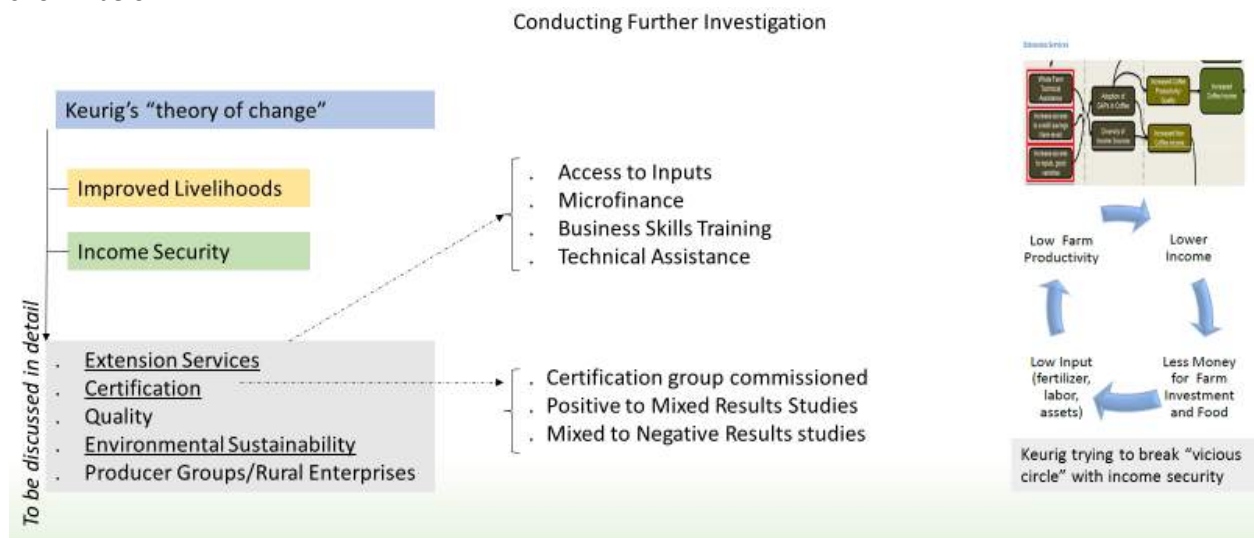
Thus I investigated the following questions:

- 1) Whether any studies investigate the staying power of the instruction or does the increase in farm output serve as all the necessary "proof" for farmers having adopted Good Agricultural Practices?
- 2) Whether the adoption of Good Agricultural Practices lead to increased productivity and/or quality?
- 3) Whether increased investment in the farm associated with the original technical assistance lead to a long-term supply of quality coffee for KGM?

The research (and thus the Discussion section of this paper) is split up by KGM's two desired outcomes :



With increased access to inputs and credit, and adoption of GAPs, farmers could increase their non-coffee income as well. Also income security is intricately tied to both food security and nutrition. Together, this allowed for many avenues down which to look for studies on the topic of income security shown below :



The first big area of research found tied to income security was extension services, or services given to farmers by government, NGO, or private organizations to help improve their farms.

- 1. Access to Inputs:** Adoption of GAPs : like hybrid seeds and Giving farmers access to credit.
Impact: Increasing in productivity & Quality
- Microfinance :** Empowering smallholder farmers to gain access to credit on their own, and reinvesting micro-credit into farms
Impact: Increased investment in farms
- Business Skills Training:** Enabling farmers to both manage their farms and demand a better price for their product
Impacts: Improved Livelihood
- Technical Assistance:** Monitoring farmers creditworthiness, and tracking farmers' willingness to pay
Impact: Increased Income Security

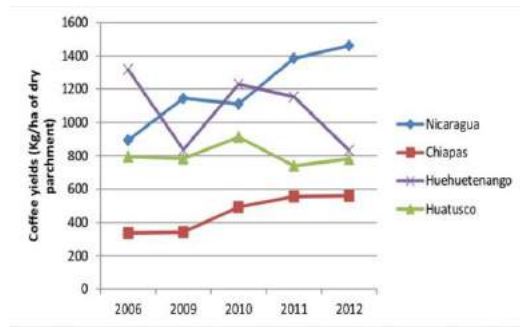


Figure 15. Mean coffee yield (kg/ha) between 2006 and 2012 in four coffee producing regions of Mesoamerica.

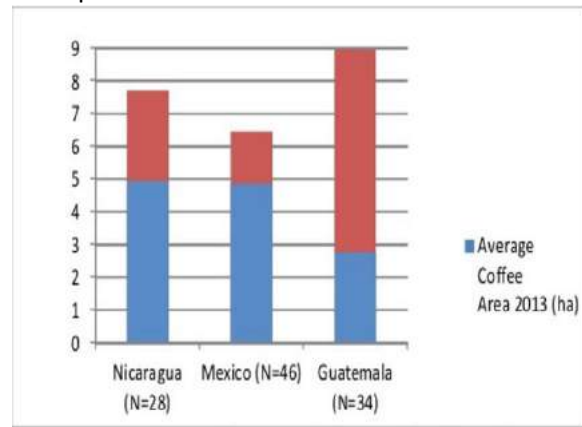


Figure 3. Reported average farm sizes and areas under coffee cultivation in 2013.

2. Certification: Not much statistical evidence on how 'Certification' is helping farmers improve their livelihood

- Certification Group Commissioned : Coffee certification programs such as Fairtrade International Rainforest Alliance and Responsible sourcing guidelines which provide : fair wages, no forced or child labor etc.

Impact: Shared Value Across Supply Chain

- Positive to Mixed Result Studies: Only 50% effective as Certification could provide opportunities for farm and livelihood betterment but there is not much evidence which confirms this claim

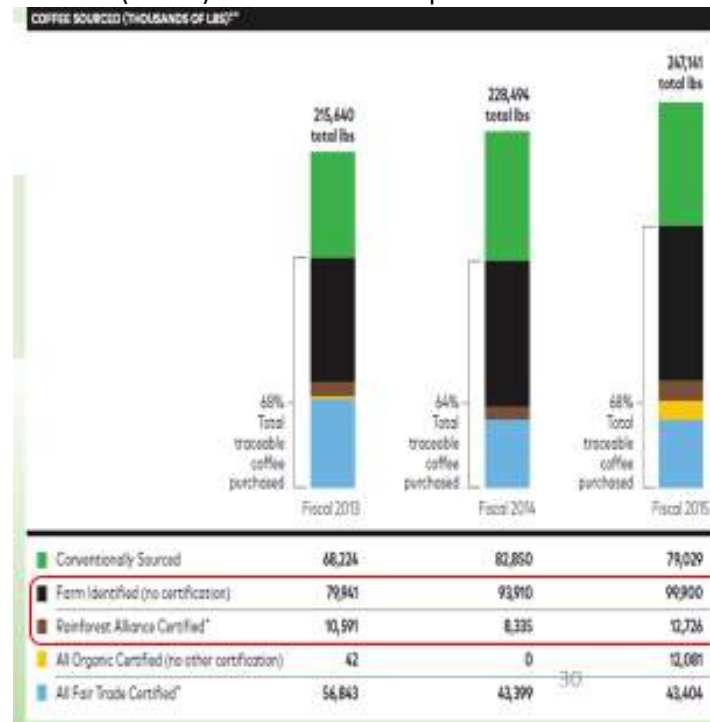
Impact: True change only comes from a more wholesale approach to improving livelihoods

- Mixed to Negative Result Studies: Less Than 50% effective : Certifications or responsible sourcing guidelines, are not enough to guarantee any kind of income security or livelihood improvements

Impact: A diversified, multifaceted strategy on improving livelihoods is critical

3. Long-term Supply of Quality Coffee

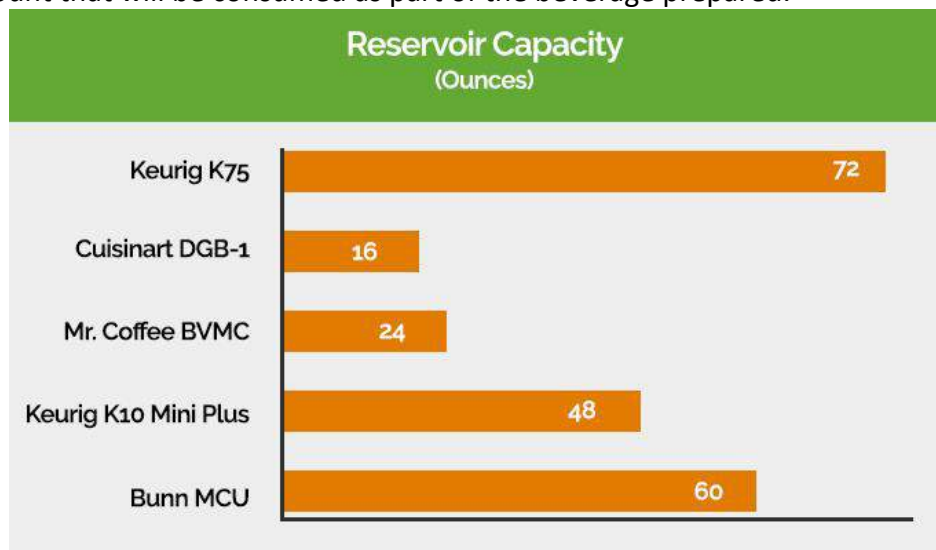
- Quality: supply chain and farm-level investments increasing the quality of the product.
Impact: Encouraging farmers & cooperatives to adopt quality-increasing practices and consistent purchase of higher-quality beans
- Productivity: to go beyond subsistence farming Business development training to increase the efficiency of operations
Impact: Heightened levels of productivity allow increased coffee income
- Rural Enterprises: Through these orgs. Farmers disseminate best practices for farm management, increase quality, and streamline practices to lower operating costs.
Impact: Farming cooperatives increase operational efficiency, lead to easier standardization of quality. and more traceability at the farm level.
- Migration: Decreasing vulnerability in the securities (income, food, health) to slow migration away from the farming area.
Impact: Hypothetically holds true



4. Improved Livelihoods:

- Water Security: Water Stewardship Projects
 - 3 areas of action:
 - Balancing, restore equal volume of water for nature
 - Connecting people to clean water,
 - Optimizing resources through efficient use of water in supply chain.

Smart Water Use in Keurig Products : The Keurig® brewing system uses water from the tap and only the amount that will be consumed as part of the beverage prepared.



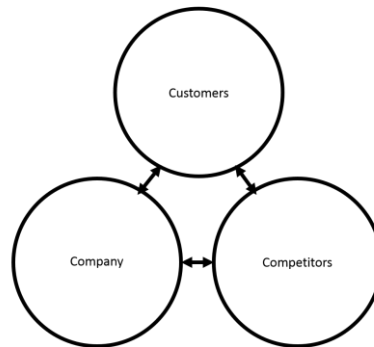
Collaboration with Nature Conservancy in 2015 to restore rivers & protect clean drinking water

Water stewardship projects:

- Colorado River Delta: balancing 524 million gallons of water/year.
- Great Lakes Region: focus on water quality improvements
- Lake Champlain: improving water quality

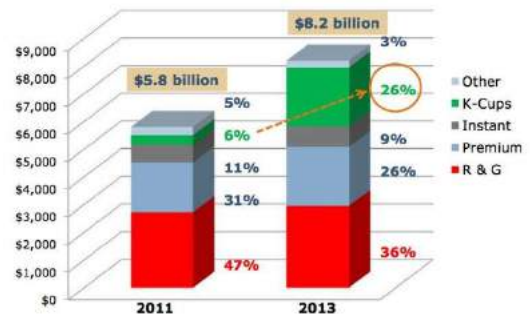
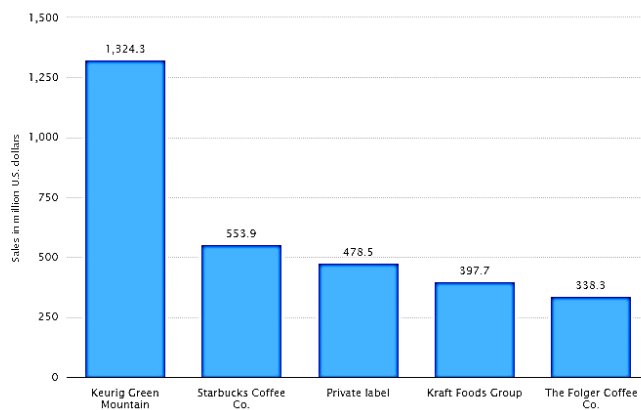
Ohmae's 3C's analysis :

Kenichi Ohmae's 3 C's Model of Corporate Strategy



Company : *Keurig Green Mountain Inc.*

The company produces exceptional Keurig® brewers for more than 20 million homes & offices. In under a minute deliver a fresh-brewed, great tasting cup. As a testament to that quality, more than 50 leading global coffee, tea and cocoa brands have partnered to offer consumers 500+ varieties. The K-cup share in the market has skyrocketed from mere 6% in 2011 to whopping 26% in 2013, is a clear proof that Keurig's strategy of continual innovation is effective in the long run.



Customer :

Target Market and Segmentation –

- 54 % Americans Drink Coffee (also named 'Elixir' in Greek Mythology)
- Middle to Upper Class (drinkers spend \$117.7/month on daily 16oz coffee.)
- Home & Office User
- 45 % growth from 2011-2015 in single cup coffee customers
- 8% reduction for grounded/bagged coffee bean customers

The primary and secondary audience segmentation is as follows:

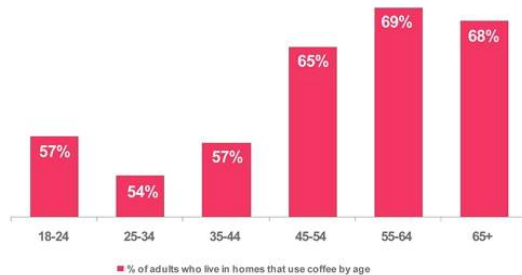
Primary Audience

Adults ranging from 18-24 (MRI index: 82), currently going office, college and always on the go. They love to drink coffee and have a strong sense of responsibility & maturity.

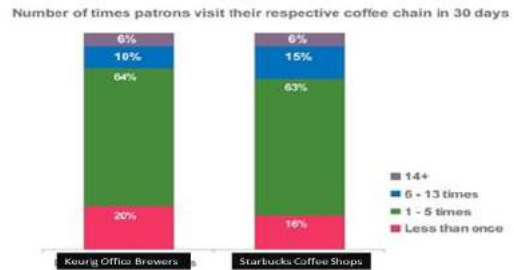
Secondary Audience

Adults aging from 55-64 (MRI Index:133) ears old who are parents/grandparents of the new audience, gross over \$ 150,000 annually, and are able to afford and provide a luxurious and high end lifestyle.

Older Americans More Likely to Drink Coffee



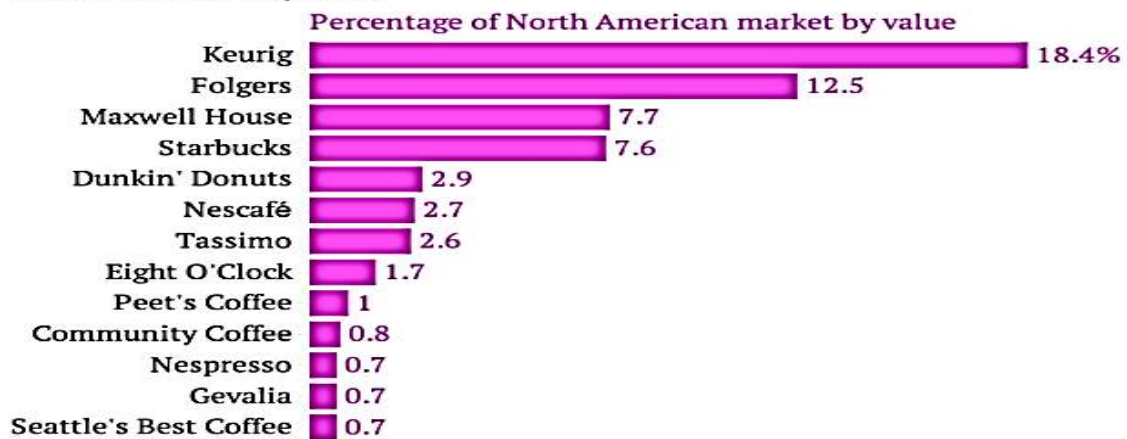
How Often Americans Order Their Coffee



Competition:

The low barriers to entry encouraged new competitors that brewed coffee packaged in non-patented pods. Many current & potential competitors had substantially greater financial, marketing, and operating resources than Keurig such as Nestle(Nespresso), Starbucks, Kraft(Tassimo) & Mars(Flavia). But with continual innovation in all segments of coffee industry being the key factor for sustained dominance, Keurig stays ahead of its competitors. Most of its competitors focus only on a single segment of 7 step chain of coffee making (mostly improving the product or increasing sales outlets but Keurig has a standpoint in innovating in all segments.

Retail coffee sales by brand



Quartz | qz.com

Data: Euromonitor

Keurig has gone from serving 1% of the retail coffee market in 2008 to nearly a fifth in 2013.

Porter's 5 forces analysis

Bargaining Power of Suppliers

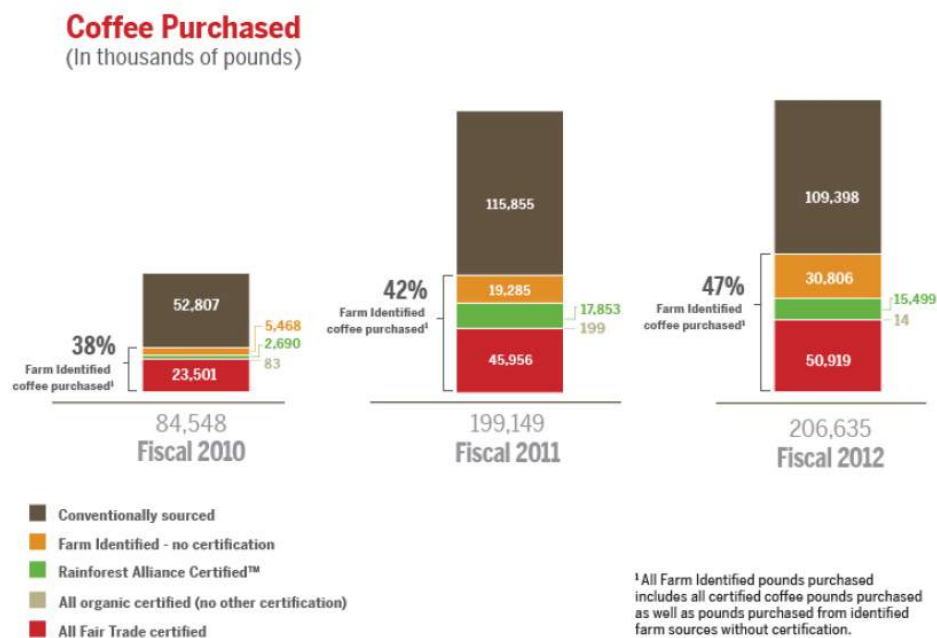
Supplier Power With Responsible Sourcing Guidelines which includes:

Uniqueness of Service

- ❖ Signature offerings:
 - Single-cup brewing system
 - Sealed “K-Cup” packs of coffee,
- ❖ Regular third-party validation is a **key part** of ensuring compliance.
- ❖ Aggressive in hitting key areas for environment protection:
 - Achieve zero waste-to-landfill distribution facilities
 - Reduced greenhouse gas emissions by 25 percent compared with 2009.
 - Minimize the use of water and results in little or no waste.
- ❖ World's largest purchaser of **Fair Trade Coffee**

Balances Social Responsibility

- ❖ 837,000 people received support through company-funded partner projects.
- ❖ Sustainability journey holistically involves largest retailer to the smallest farmer.



Bargaining Power of Buyers

Low – The switching costs for Keurig Brewers in Offices and homes with Nestle Nespresso or Starbucks Verismo is high(their price is 1.5-2 times)

Keurig uses **innovative** techniques focused on driving maximum customers:

Seasonal Campaigning - Mails with Keurig Portion packs

- Utilizing the Psychological Principles of Persuasion – Reciprocity & Liking, Halo Effect
- At Thanksgiving 2015, sent out 125,000 pieces, urging to either try or give as gifts

Threat of Entrants

Low – With continual innovation strategy in all sectors of coffee industry, resilient supply chain, product or packaging, Keurig has a stable economy,

- 14 patents which prove its specialized knowledge.
- No Barriers to Entry other than regular cafés
- Starbucks has cafés but earns no significant profit through office brewing systems

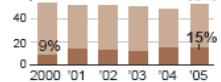
Coffee-craving trends steadily brewing

More than 172 million adults in the U.S. consumed coffee daily with 15 percent, around 32 million, drinking gourmet brands.

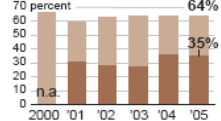
Adult consumption of coffee

■ Total ■ Gourmet only

Daily



Weekly



Specialty coffee retail sales breakdown, 2003 est.

14.0% Coffee bean roaster/retailers

5.5% Coffee bean sales (not from cafes)

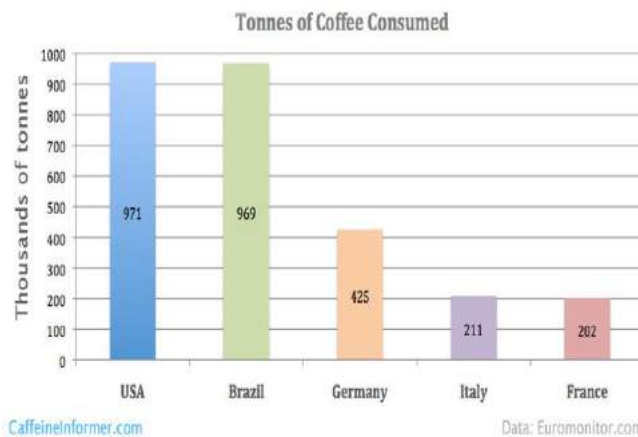
3.2% Mobile coffee carts

9.0% Coffee retailers without seating

68.3% Coffee retailers with seating

SOURCE: Specialty Coffee Association of America; National Coffee Association of U.S.A Inc.

AP



Competitive Rivalry

High – Strong competitors like Starbucks & Nespresso **but** with continual innovation in other sectors of coffee industry Keurig has greatly reduced the threat of substitution.

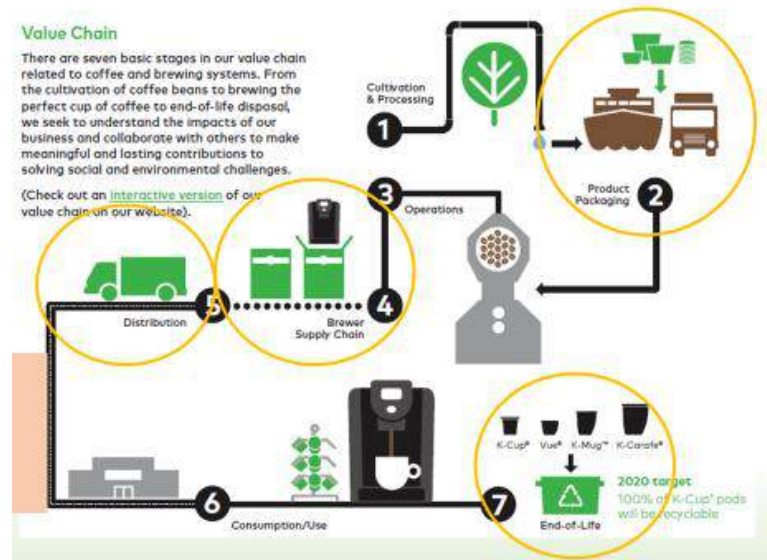
Substitutes to Coffee: tea, energy drinks but fulfills fewer needs.

- Americans understand the benefits of coffee – enhanced mental cognition, longevity, and its nootropic benefits when it comes to performance under high stress which tea and energy drinks can't substitute.
- Energy drinks are not natural and contains added sugars: contain artificial caffeine whereas coffee has natural caffeine in higher content

More than just coffee:

Keurig products are eco-friendly and yearly investments on social responsibility projects are more than its competitors which **promotes its values** and lures customers to support the cause.

Conclusions



Part 1 of hypothesis:

- Substantially proved

Keurig has made continual innovations in all segments of coffee industry, the whole value chain from product ,to packaging to supply chain to end-of-life recycling.

Part 2 of hypothesis:

- “Theory of Change” Methodology is only partially proved

Not Enough Evidence for whether improvements in Internal Value Chain – farmers, infrastructure, sustainability etc. can give a competitive advantage on revenue and thus give ‘room’ to test more ideas

From the data present, it can be said that Keurig has respected the farming communities with empowering them business training, co-operatives, water stewardship programs but there is not much statistical evidence on how procurement from certified farms is helping with long term supply of quality coffee certification.

Future Strategic Consideration in Global Coffee Demand

Key Coffee Market Drivers:

1. Growing Demand in Emerging Markets :
 - Emerging markets to reach global coffee consumption by 2020
 - Growth in instant coffee driven largely by emerging consumers
2. Regional differences in retail coffee value and volume
 - North America continues to lead both value and volume of coffee sales so focus to be directed on West.
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3. Regional differences in retail coffee value and volume
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4. Product Innovation
 - Innovation driving market share gains and gross profits
 - Consumer preference for quality innovation & seamless user experience
5. Growing out-of-home offering
 - Consumers willing to pay more for convenience
 - Replacing ground cafe shops with quick service specialty coffee restaurants (QSR)

References :

1. <http://www.newsweek.com/green-2015/top-green-companies-u.s.-2015>
2. <https://qz.com/207354/america-loves-k-cups-but-instant-coffee-rules-the-world/>
3. Sustainability Report 2012 (for details on customers)
4. for Customer profile :
5. <https://www.experian.com/blogs/marketing-forward/2009/12/01/demographic-and-preferences-of-coffee-drinkers-in-america/>
6. http://archive.boston.com/business/articles/2011/08/07/the_inside_story_of_keurigs_rise_to_a_billion_dollar_coffee_empire/?page=3
7. Sustainability Reports of Keurig Green Mountain of Year 2012, 2013, 2014 Part A
8. Corporate Social Responsibility reports of Keurig of year 2012, 2013, 2014 part B
9. Keurig 4th quarter reports for fiscal year 2015
10. Keurig press releases from 2014 October – January 2015
11. <https://www.theguardian.com/sustainable-business/2015/may/27/nespresso-sustainability-transparency-recycling-coffee-pods-values-aluminum>
12. <https://www.starbucks.com/responsibility/environment/recycling>
13. *Preliminary list of literature material which would be reviewed are:*
 - Pod adapter for use with k-cup™ beverage brewer US 20130199379 A1
 - Re-usable beverage filter cartridge US 6658989 B2
 - Single-serve beverage production machine US 20150257586 A1
 - Beverage cartridge US D647398 S1
 - Portable coffee maker US 4382402 A
 - Disposable single serve beverage filter cartridge US 6607762 B2
 - Beverage forming device and method with moving beverage cartridge holder US 20140338542 A1

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Term Paper