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Innovations in Asia: Selected case studies

Institute of Innovation and Entrepreneurship, Singapore Management University

INNOVATIONS IN ASIA
— SELECTED CASE STUDIES

SMU
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Preface

Professor Arcot Desai Narasimhalu

Asian Innovation Case Studies

This book is a compilation of seven case studies written by faculty and staff of Singapore Management University (SMU) and has been edited in conjunction with the inaugural Asia Pacific Innovation Forum organised by the International Society for Professional Innovation Management (ISPIM) and hosted by SMU in December 2014. These cases have been carefully selected to illustrate the various challenges inherent in creating entrepreneurial and business innovations.

The first five cases are related to start-ups by experienced professionals and students.

Jayashree is an excellent case that shows how an individual with very little education was able to design and implement a solution – based on his own observations – for meeting market needs at the bottom-of-the–pyramid. It is also a case that can be used to discuss the challenges faced in the product development and manufacturing stages.

Innova Technology was included to discuss how a company decided the best market to enter out of several go to market alternatives. It also examines the necessary due diligence required in product development.

Quantine is a good example of how some successful entrepreneurs must pivot their offerings based on market feedback and opportunities. Quantine chose to stay within its initial industry of interest.

Rainmaker Labs follows the story of an industry practitioner turned entrepreneur in his endeavor to create an interesting product that he hopes will revolutionise the retail world.

Jungle Beer is an interesting case that introduces the challenges faced by a start-up offering a differentiated product in an existing product line, and the accompanying challenges in scaling up the company.

The last two cases are innovations by established players.

The Gillette case explores marketing innovation in consumer goods and elaborates how Proctor and Gamble managed to increase their market share in India despite seemingly insurmountable obstacles to consumer adoption. Encompass further adds to the discussion of scaling up an existing business.

I would like to thank Professor Arnoud de Meyer, the President of SMU, for contributing his Encompass case, and also Professor Srinivas Reddy and Professor Kapil Tuli for contributing Gillette and Jungle Beer respectively. I would also like to thank the SMU Case Writing Initiative at the Centre for Management Practice for their unwavering support to faculty interested in developing cases based on an Asian context for classroom discussions.

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JAYAASHREE INDUSTRIES
REVOLUTIONISING SANITARY PAD USAGE IN INDIA

Arcot Desai Narasimhalu,
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Publication Type
Case

Year Completed
11-2012

Discipline
Entrepreneurial and Small Business Operations | Marketing | Operations and Supply Chain Management | Technology and Innovation

Data Source
Field Research

Industry
Feminine Hygiene

Geographic Coverage
India

Temporal Coverage
1998-2012

Education Level
Executive Education; Postgraduate; Undergraduate

Case ID
SMU-12-0046

Keyword(s)
Social enterprise, social entrepreneur, social entrepreneurship, development, gender development, women, menstrual health, menstrual hygiene, hygiene, feminine hygiene, bottom of the pyramid, innovation, frugal innovation, women's groups, distribution, sales, scale-up, reverse engineering

Abstract

Arunachalam Muruganantham is a social entrepreneur dedicated to solving India's menstrual health problems. He developed an unprecedented product as a solution: a low-cost, locally produced sanitary pad. In a paragon effort of frugal innovation, he reverse-engineered the industrial processes used to make sanitary pads. The result was a small-scale, low-cost machine that could manufacture quality pads sold at a retail price that is 20 percent lower than the cheapest mass-produced brand. However, no one bought his pads until his wife began to sell them. After which, the two were unable to keep up with demand. This triggered his realisation concerning the importance of including women as stakeholders in the operation. His next step was to figure out a way to increase the availability and access of the pads. He needed an innovative, bottom-of-the-pyramid solution and wanted to create a positive social impact along the entire value chain.

Muruganantham was a newly married man in 1998. One day he noticed his wife slinking about while holding something hidden behind her. Confronting her, he gestured behind his back and asked what she was holding, to which she replied, “None of your business”.

He pressed her and was shocked to discover that she was concealing an old dirty rag she used to manage her menstrual period. He begged, “You’re an educated woman, why aren’t you using sanitary pads?”[1] Hesitantly she answered,

> **I know about sanitary pads, but if myself and my sisters started using that, we’d have to cut the family milk budget.**

So it was a matter of cost. Muruganantham was appalled. He never thought about menstrual health or considered it an issue. As he would later come to realise, India faced serious, multifaceted problems due to poor menstrual hygiene. It was a hidden problem, and Shanti, his wife, was not alone.

The more he thought about it, he came around to believe that the problem persisted due to a lack of women’s empowerment and affordable access to sanitary pads. In his view, a solution could be achieved by manufacturing low-cost sanitary pads locally. From that point, he vowed to help India achieve a sanitary pad use rate of 100 percent. It was barely above ten percent at the time.

For seven years he worked tirelessly to develop a sanitary pad of comparable quality to those made by multinational consumer goods manufacturers. He endured numerous hardships through his quest including estrangement from his wife, but eventually succeeded in reverse engineering both the pad and the machine that was used to make it. In 2005 he had a working prototype. A little over a year later, he founded Jayaashree Industries to begin producing and selling the low-cost sanitary pads.

However, by late 2006, Muruganantham had become discouraged by his pile of unsold pads. He had not sold one.[2] At this point, Shanti reconciled with him, and decided to try and sell the pads herself. She succeeded. By 2007 the couple could not keep up with demand. It was then that Muruganantham understood the importance of involving women in the operation.

However, the couple could only produce a thousand pads per day with their machine. If Muruganatham wanted to realise his dream of India reaching a 100 percent sanitary pad use rate, he would need to expand the scope of Jayaashree’s operations. He needed a way for more of his pads to reach many more women.

This case was written by Professor Arcot Desai Narasimhalu and Christopher Dula at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

Version: 2012-11-15

1 Stephanie Nolen, “The Absorbing Tale of One Man’s Quest for Better Feminine Hygiene.” The Globe and Mail, October 4, 2012, retrieved from: http://globe2go.newspaperdirect.com/epaper/viewer.aspx. Accessed December 2012.
2 G. C. Shekhar, “Inventor Prize for School Dropout – Honour for Sparking Hygiene Revolution”, The Telegraph, November 25, 2012, retrieved from: http://www.telegraphindia.com/1091125/jsp/nation/story_11783178.jsp. Accessed December 2012.
3 “A Tide of Change in India – 3,000 days of pain and shame is out in the open”, Water Supply and Sanitation Council, September 12, 2012, retrieved from: http://www.wsscc.org/resources/resource-news-archive/tide-change-india-3000-days-pain-and-shame- out-open. Accessed December 2012.
4 Kounteya Sinha, “70% Can’t Afford Sanitary Napkins, Reveals Study”, The Times of India, January 23, 2011, retrieved from: http://articles.timesofindia.indiatimes.com/2011-01-23/india/28363510_1_women-resort-napkins-menstruating. Accessed December 2012.
5 “A Tide of Change in India – 3,000 days of pain and shame is out in the open”, Water Supply and Sanitation Council, September 12, 2012, retrieved from http://www.wsscc.org/resources/resource-news-archive/tide-change-india-3000-days-pain-and-shame-out- open. Accessed December 2012.

Menstrual health in India

Menstrual health continued to be an issue for India 15 years after Muruganantham first became aware of the matter. In 2012 there were 355 million women in India of menstruation age.[3] Only 12 percent of these women had access to sanitary pads.[4] As an alternative, most women in India used unhygienic old rags, dried plant matter, newspapers, or ash. Others simply wore the same clothes and isolated themselves from others.

Further, menstrual health education was not available to 200 million of India's women.[5] These women were simply unaware of the full risks of unhygienic practices. The disparity was clear; women who did not use sanitary pads had 70 percent more reproductive and urinary tract infections than users.[6] This contributed to India's high maternal mortality rate of 212 per 100,000 live births, or one pregnancy-related maternal death every ten minutes.[7]

Thirty one percent of Indian women also self-reported decreased levels of productivity.[8] On average, these women experienced a loss of 2.2 days per month during their menstrual period.[9] Of greater concern was the strong correlation between school dropout rates for girls and the onset of puberty.[10] In 2012, this dropout rate was 23 percent for pubescent girls; managing menstruation was hypothesised to be a causal factor.[11] The health and economic consequences of low sanitary pad use were serious and significant. Several identifiable reasons behind low rates of use were to blame: accessibility, cost, and awareness.

Accessibility and cost

India already had a low rate of sanitary pad use, especially when compared to the 96 percent use rates witnessed in developed countries.[12] However, pad use rates in India were not evenly distributed. Metropolitan areas, with their more developed markets and higher incomes, skewed the numbers on sanitary pad use. The situation was much worse in rural areas.

When looking at per capita, it is a mix of both urban and rural… but if you remove the metros like Mumbai or Delhi… it is two percent.

Cost was a limiting factor for market availability, and rural areas were typically much poorer than their urban counterparts. Sanitary pads were just not available for sale in many rural areas. In this sense, women in villages often did not have access to sanitary pads, even if their incomes permitted. Regardless, per capita use in urban areas was still low, with two out of ten urban women using eight sanitary napkins per month on average.[13] The more challenging problem, however, was convincing others to acknowledge the issue and address it.

Awareness

Social mores surrounding menstruation were symptomatic of gender inequality in India; it prevented menstrual hygiene from being recognised as a problem. Muruganantham would experience first hand the popular belief that menstruation was impure and polluting – even to discuss the matter was considered taboo. These views were particularly severe in more traditional and conservative areas like villages. Women in these places were sometimes barred from participating in social activities and segregated from their families during their menstrual periods.[14]

These factors were very real impediments to India's socio-economic development, but in 1998, Muruganantham was still unaware of how large the problem truly was.

[6] Nisha Kumar Kulkarni, "Promoting Feminine Hygiene in India," Searchlight South Asia, June 21, 2011, retrieved from: http://urbanpoverty.intellecap.com/?p=62. Accessed December 2012.
[7] Aarti Dhar, "U.N.: India likely to miss MDG on maternal health", The Hindu, July 2, 2012, retrieved from: http://www.thehindu.com/sci-tech/health/policy-and-issues/un-india-likely-to-miss-mdg-on-maternal-health/article3595095.ece. Accessed December 2012.
[8] Nisha Kumar Kulkarni, "Promoting Feminine Hygiene in India," Searchlight South Asia, June 21, 2011, retrieved from: http://urbanpoverty.intellecap.com/?p=62. Accessed December 2012.
[9] Ibid. [10] Varina Tjon A. Ten, "Menstrual Hygiene: A Neglected Condition for the Achievement of Several Millennium Development Goals", Europe External Policy Advisors, October 10, 2011, retrieved from: http://www.wsscc.org/sites/default/files/publications/tjon-a-ten-menstrual_hygiene-2007.pdf. Accessed December 2012. [11] "A Tide of Change in India – 3,000 days of pain and shame is out in the open", Water Supply and Sanitation Council, September 12, 2012, retrieved from http://www.wsscc.org/resources/resource-news-archive/tide-change-india-3000-days-pain-and-shame-out- open. Accessed December 2012.
[12] Nisha Kumar Kulkarni, "Promoting Feminine Hygiene in India," Searchlight South Asia, June 21, 2011, retrieved from: http://urbanpoverty.intellecap.com/?p=62. Accessed December 2012.

Satisfying unmet needs through innovation

Troubleshooting

Muruganantham was troubled by what he saw with his wife. It was wrong that she suffered because his family could not afford her basic hygiene. He was curious about this issue, and sought to discover why sanitary pads were so relatively expensive. He went to the store and purchased one. He recalled,

That fellow [the shopkeeper] looks left and right and spread a newspaper – rolls it [the sanitary pads] into the newspaper – and gives it to me like a banned item or something like that.

He returned home to investigate the contraband in private.

I thought to myself, "this white substance made of cotton… my god, that guy is just using a penny value of raw material…they are selling for pounds… dollars! Why not make a local sanitary pad for my wife?"

Muruganantham sensed an opportunity. If he could discover a low-cost method to produce a clean and effective sanitary pad, he would be able to improve the lives of women throughout India.

The commercial pads were ostensibly simple in construction; little more than cotton. He began experimenting by making his own sanitary pad replicas. However these pads were untested – he needed volunteers. "But who in India would volunteer to test his homemade sanitary pads…who anywhere!?" he thought.

The only available victim is my wife, so I made a sanitary pad and handed it to her. One day she said, openly, "I'm not going to support this research." Then the other victims are my younger sisters. But even sisters, wives, they're not ready to support [this] research.

As he came to recognise, menstrual health was a sensitive subject in India, and his family was unwilling to discuss it. His experimentation process needed to be more clinical. He had an idea. Muruganantham recruited female medical students to volunteer for prototype testing. He gave them questionnaires to provide performance data on his pads because they would refuse to speak with him directly. Unfortunately this method did not yield any useful feedback. He needed better data. Muruganantham began testing the prototypes on himself.

I wore a sanitary pad. I filled animal blood in a football bladder. I tied it up here [pointing to around his waist]. There is a tube going into my panties, while I'm walking, while I'm cycling; I made a press and doses of blood will go there. Muruganantham laughed, "I am the first man in the world to wear a sanitary pad!"

Simulated menstruation gave him a critical understanding of his pad's shortcomings, and in the process, he empathised more with women. However, this unconventional method was rousing suspicion in the community. Some even believed he was practicing black magic.[15]

Perseverance

His wife, Shanti, suspected Muruganantham was having affairs with the medical students. She left to visit her parents, and a short time later, he received a divorce notice in the mail. He was devastated and shortly thereafter moved in with his mother. There he continued his research where he had another idea on how to improve his research methodology.

He needed a better way than questionnaires to evaluate his pad's performance. Muruganantham subsequently colour coded the prototype pads to correspond with each tester. He then convinced the testers to drop off the used pads in a bin near his residence where he would discreetly collect them. He then devoted one room of his mother's house as a research laboratory.

[13] Mohammed Ekramul Haque, "Happy Period: a bright future for the feminine hygiene product market in India is reason enough to invest in P&G", Bloomberg, November 28, 2008, Outlook Profit, retrieved from: http://books.google.com.sg/books?id=IjIEAAAAMBAJ&pg=PT27&lpg=PT27&dq=Happy+Period:+a+bright+future+for+the+feminine+hygiene&source=bl&ots=6Ax5VRwvxV&sig=5rjkh6m2YvOnsFrtl-8jhUXatY&hl=en&sa=X&ei=nFUbUYHtFceOrgewqIHgCQ&ved=0CDwQ6AEwAg. Accessed December 2012.

[14] Yousra Yusuf, "Celebrate Solutions: Addressing Taboos to Improve Women's Lives", Women Deliver, October 1, 2012, retrieved from: http://www.womendeliver.org/updates/entry/celebrate-solutions-addressing-taboos-to-improve-womens-lives. Accessed December 2012.

This set up did not last long. Muruganantham's mother walked into his laboratory and saw multiple used sanitary pads splayed out over a table. She was so upset that she wept and asked her son to leave home. The small town where he lived also ostracised him because of his research. The community agreed that Muruganantham was no longer welcome. After facing much public ridicule, he had to leave.

A breakthrough

Muruganantham relocated to the neighboring city of Coimbatore. It was the second largest city in the southern state of Tamil Nadu, and was home to 1.5 million people.[16] He fell on hard times, and eventually found work as a machine operator, living in cramped quarters. Nonetheless he continued his research and development into producing a low-cost sanitary pad.

The cotton pads that Muruganantham had been developing were unable to absorb fluids and maintain their shape. Apparently, there was something more to commercial sanitary pads despite their resemblance to cotton. He experimented with other materials but never had any success.[17] After years of experimentation, he eventually removed the absorbent material inside a commercial pad and tested it in a lab – it was cellulose.[18] Specifically, it was cellulose derived from the wood fibres of pinewood. He learned that the production of commercial sanitary pads required a defibration process that used machines often worth over a million dollars to separate usable cellulose from the fibres into what was called fluffy pulp. This was a large capital investment typically made by multinational companies like Johnson & Johnson and Proctor & Gamble. A locally produced, low-cost sanitary pad would need an entirely different production model.

Muruganantham's machine

Muruganathan spent the next two and half years developing a machine that could make low-cost sanitary pads comparable to the ones produced by multinational personal care companies.[19] It was a long process of trial and error, or, according to Muruganantham, what corporations called 'R&D'. The only difference was that Muruganantham worked independently and on his own budget.

During that time, he came to understand how commercial pads were manufactured, and he worked to innovate a simpler process. Piece by piece his machine came together. First he developed a defibration unit that could mechanically separate moldable pulp from wood fibres. He next built a core forming machine to mold the pulp into an absorbent pad, and then another machine to seal the pad using non-woven fabric. The last add-on was a ultraviolet unit to sterilise the pads (refer to Exhibit 1 for a diagram of the manufacturing process). By 2005 Muruganantham had completed the final design and assembled a fully operational machine that cost less than US$1,400 to build.[20]

Muruganantham was able to keep his costs low by developing what he called "a virtual factory". He lacked the resources to invest in the machinery necessary to build the component parts for the machine himself. Instead, he relied on a novel alternative. The machinery used in various metal fabrication shops across Coimbatore were not always in use; there was idle time.

Muruganantham spent months contacting all of the fabrication shops in town to create a catalog of contact information, schedules and capabilities. He was amazed how much excess capacity existed. When these fabrication shops had idle manpower and machine time he would contract them to produce specialised component parts of his sanitary pad making. Otherwise he ordered off-the-shelf components. In this manner he only needed a small space to assemble all 113 parts of his machine.

Satisfying unmet needs

He then patented his design and delivered the specifications to the Indian Institute of Technology in Chennai where he requested it to be evaluated.

[15] Lakshmi Sandhana, "India's Women Given Low-Cost Route to Sanitary Protection", The Guardian, The Observer, January 22, 2012, retrieved from: http://www.guardian.co.uk/lifeandstyle/2012/jan/22/sanitary-towels-india-cheap-manufacture. Accessed December 2012. 16 Coimbatore, "General Information on Coimbatore", retrieved from http://www.coimbatore.com/general.htm. Accessed December 2012

[16] Coimbatore, "General Information on Coimbatore", retrieved from http://www.coimbatore.com/general.htm. Accessed December 2012

[17] Lakshmi Sandhana, "India's Women Given Low-Cost Route to Sanitary Protection", The Guardian, The Observer, January 22, 2012, retrieved from: http://www.guardian.co.uk/lifeandstyle/2012/jan/22/sanitary-towels-india-cheap-manufacture. Accessed December 2012. 18 Ibid. 19 Ibid.

The institute was so impressed with Muruganantham's design that they registered it on his behalf in the competition for Best Innovation for the Betterment of Society, which he then won in 2006.[21] That same year he founded Jayaashree Industries (refer to Exhibit 2 for capital and startup costs). Recognition for his work began to draw attention, including Shanti's. He and his wife reunited.

Profit was never Muruganantham's motivation. He wanted to sell his sanitary pads at near cost (refer to Exhibit 3 for a typical monthly income statement). He believed that success would be based on creating positive social impact along the entire value chain rather than maximising profit for personal gain. Jayaashree would be a social enterprise.

In late 2006 Muruganantham and his wife ran operations at Jayaashree producing and selling low-cost sanitary pads (refer to Exhibit 4 for monthly input and operating costs). Two people using his machine could make 1,000 pads a day that were 20 percent cheaper than the lowest-cost mass-market commercial pads sold in India. His retail price for a packet of eight of his machine-made pads was US$0.29 as compared with US$0.36 to US$1.28 for mass-market commercial pads of the same per quantity packet (refer to Exhibit 5 for the pricing model). They were also equivalently effective at comfortably and hygienically managing a period. This was a significant difference that improved the affordability of sanitary pads for the price-sensitive rural poor.

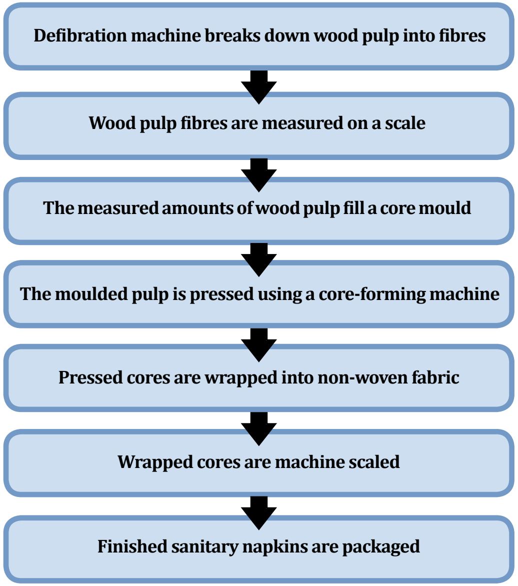
The next step

It was 2007, nearly ten years since Muruganantham first conceived of making a low-cost locally produced sanitary pad. Just a few months ago he worried that his venture would fail. After all, he could not sell a single pad. However, once his wife began selling the pads, the couple was unable to keep up with demand. This was a crucial insight.

Muruganantham finally understood the importance that women played as key stakeholders. If Jayaashree was to succeed, women would have to be involved at every level of the value chain. Overcoming the underlying issues behind menstrual health would have to be on their terms.

One critical challenge remained: Jayaashee Industries was unable to meet the demand for its pads. A 1,000 pad per day production rate was a long way from enabling India to achieve a 100 percent sanitary pad use rate. Hundreds of millions of women across the entire sub-continent still needed to adopt sanitary pads. His pads needed to reach a lot more women. What could he do?

EXHIBIT 1:
SANITARY NAPKIN MAKING MACHINE – MANUFACTURING PROCESS



Source: Jayashree Industries, retrieved from: http://newinventions.in/. Accessed December 2012.

[20] Shobha Warrier, "How a Highschool Dropout Empowers Rural Women", Rediff Business. August 10, 2010, retrieved from: http://www.rediff.com/business/slide-show/slide-show-1-how-a-school-dropout-empowers-rural-women/20100810.htm. Accessed December 2012.

[21] "Arunachalam Muruganantham – CEO, Jayaashree Industries," The Nand & Jeet Khemka Foundation, http://khemkafoundation.org/index.php?option=com_k2&view=item&id=167:arunachalam-muruganantham&Itemid=287. Accessed December 2012.

EXHIBIT 2:
CAPITAL AND STARTUP COSTS

Capital Costs

Description	Units	Total Cost (US$)
Defibration machine	1	370
Weighing scale	1	55
Core moulds	5	55
Core forming machine	1	105
Ultra-violet treatment unit	1	190
Soft-touch sealing machine		515
Work table	2	36
Plastic buckets and trays	5	10
Central sales tax (12.5 percent)		167
Total costs plus tax		**1,503**

Typical Startup Costs

Description	Total Cost (US$)
Advance for working place*	90
Installation and training fees**	70
Running capital for two months	1569
Registration for Small Scale Industries (SSI) and initial misc. admin. expenses	127
Total costs	**1,856**

** The equipment and workspace requires an area at least 16' x 16' or 12' x 10'. Entrance must be at least 30" wide.*

*** One free day of training is provided. Installation fees are determined by travel costs from Coimbatore to destination along with food and accommodation expenses.*

Note: Costs converted into US dollars from Indian rupees at rate 1 INR : 0.0181 US$

Source: Jayashree Industries, retrieved from: http://newinventions.in/. Accessed December 2012.

EXHIBIT 3:
TYPICAL INCOME STATEMENT

Description	US$
Monthly revenue - Monthly napkin production * Wholesale price	 1038.80
Monthly costs - Raw material input costs - Central sales tax on inputs (12.5 percent) - Direct labour costs	 (668.25) (83.53) (126.56)
Monthly Expenses - Rent - Electric utilities - General admin.	 13.55 9.00 18.08
Total costs	**119.83**

Source: Jayashree Industries, retrieved from: http://newinventions.in/. Accessed December 2012.

EXHIBIT 4:
MONTHLY (25 DAYS) OPERATING AND INPUT EXPENSES

Monthly Operating Expenses

Expense	Cost (US$)
Rent	13.55
Electricity	9.00
General Administrative Expenses	18.08
Total	**40.63**

Description	Workers	Direct Labour Cost (US$)
Semi-Skilled Worker	4 people	126.56

Note: Costs converted into US dollars from Indian rupees at rate 1 INR : 0.0181 US$

Note: Raw Materials: wood fiber for wood pulp, thermo-bonded non-woven fabric, film & polyethylene for top & back layer, release paper, glue/ gum, packing covers.

Source: Jayashree Industries, retrieved from: http://newinventions.in/. Accessed December 2012.

Monthly Input Costs

Description	Units	Total Cost (US$)
Wood Pulp	362.5 Kg	360.75
Top Layer	5.5 Kg	153.75
Back Layer	8.75 Kg	29.50
Release Paper	275 Sheets	13.5
Gum	25 Kg	49.75
Packing Covers	4500 Covers	61
	Total costs	**668.25**

EXHIBIT 5:
PRICING MODEL

Description	US$
Cost Per Napkin Packet - Raw material costs plus waste	8.30
Target Profit	5.00
Wholesale Price	**13.50**
Add Whole Seller's Profit Margin of 20 Percent	2.50
Estimated retail price per packet	**15.80**

8 Napkins Per Packet
4,320 packets per month

Note: Costs converted into US dollars from Indian rupees at rate 1 INR : 0.0181 US$

Source: Jayashree Industries, retrieved from: http://newinventions.in/. Accessed December 2012.

INNOVA TECHNOLOGY (A): SEEKING A MARKET FOR ANTI-LOSS DEVICES

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Publication Type
Case

Year Completed
11-2013

Discipline
Business Administration, Management, and Operations | Entrepreneurial and Small Business Operations | Marketing | Technology and Innovation

Data Source
Field Research

Industry
Mobile Technology

Geographic Coverage
Singapore

Temporal Coverage
2012

Education Level
Executive Education; Postgraduate; Undergraduate

Case ID
SMU-13-0018A

Keyword(s)

Technology start-up, product innovation, growth strategies, go-to-market strategy, entrepreneurship, modular manufacturing, crowdfunding

Abstract

This case is the first part of a two-part series on Innova Technology, a technology start-up company based in Singapore. The two cases focus on:

Case (A)
– Developing, producing and marketing a product innovation

Case (B)
– Growth strategies for a young technology company

The case is set in May 2012, and begins with the protagonist, Rick Tan, chief executive officer of Innova Technology Private Limited, contemplating what his company's go-to-market strategy should be.

Tan and his business partner, Jonathan Lim, who is also the chief technology officer for Innova Technology, developed PROTAG, a new anti-loss device, using Bluetooth technology. The device, which is about the size of two credit cards stacked together, is synched to a mobile phone and can be attached to valuable personal belongings such as keys, wallets, handbags, passports and even phones. If the valuable item were to be separated from the person by more than a certain distance, the device would set off an alarm alerting the owner of its potential loss.

Tan and Lim are two young entrepreneurs who set up Innova Technology in January 2011 as a technology start-up under the auspices of Singapore Management University's Institute of Innovation and Entrepreneurship. Tan, the partner with the business and finance skills, focused on developing a sound business plan and raising funds for their product. Lim, the technology guru, channelled his efforts to fine-tune the technology and develop a design with unique functionality.

After extensive market research and encouraging results from beta test sales using the crowdfunding site IndieGoGo, Tan had confidence in his product. Yet, he was keenly aware that a great product could fall flat in the market if it was not backed by a well-designed marketing strategy. The partners had invested in manufacturing and 5,000 pieces of PROTAG had already been shipped out from the factory. The business's budget was wearing thin and Tan had one shot to get his marketing plan right. Tan had to decide on the most appropriate go-to-market strategy for PROTAG:

Should he mass market the product or focus on a specific consumer segment?

Which segment(s) should he focus on?

Should he use multiple sales channels or stick to one?

Which was the most appropriate channel for his product?

What price should he charge?

On the morning of May 2012, Rick Tan, the chief executive officer of Innova Technology, nervously paced the floor of his small office in Singapore Management University's (SMU's) Business Innovation Generator. He stopped to glance at the small device that lay on the table before him. Slowly, his gaze shifted to the giant white board on which he had schematically displayed the various options and strategies for the launch of his company's brand new product.

Tan and his business partner, Jonathan Lim, who was also the chief technology officer for Innova Technology, had developed PROTAG, a new anti-loss device, using Bluetooth technology. The device, which was about the size of two credit cards stacked together, was synched to a mobile phone, and could be attached to valuable personal belongings such as keys, wallets, handbags, passports and even phones. If the valuable item were to be separated from the person by more than a specified distance, the device would set off an alarm, alerting the owner of its potential loss.

The idea to build and sell an anti-loss device came to the two young entrepreneurs in late 2010. Tan recalled the day in January 2011, when he had rushed into Lim's office, barely able to keep his voice steady, "Jon, I just received a call from SPRING Singapore and they have agreed to extend a grant of US$62,000 of seed money for us to start manufacturing our first batch of devices." Shortly after, the start-up was established under the auspices of SMU's Institute of Innovation and Entrepreneurship.

In the 15 months that followed, Tan and Lim worked frenetically, frequently pulling all-nighters, to fine-tune the technology, develop a design with unique functionality and finalise the modular manufacturing process with partners in China. The duo also worked tirelessly to raise additional funding for their product, which they believed had the tremendous potential for global sales in a relatively new market.

With the technology, design and manufacturing issues resolved, Tan's focus shifted to the marketing and distribution aspects of the business. He recognised that Innova Technology was a small start-up trying to create awareness amongst its target customers and establishing a footprint in a growing market. Tan was confident of his product but he also understood that a great product could fall flat in the market if it was not backed by a well-designed marketing strategy. The partners had invested in manufacturing and 5,000 pieces of PROTAG had already been shipped out from the factory. The business' budget was wearing thin and Tan had only one shot to get his marketing plan right.

There were strategic decisions to be made before proposing the most appropriate go-to-market strategy for PROTAG. Tan had spent the last couple of weeks examining each strategy in detail and distilling the options – and now he had to make the final decision.

This case was written by Professor Arcot Desai Narasimhalu, Sarita Mathur and Adina Wong at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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Market for anti-loss devices

Anti-loss devices were part of the burgeoning consumer electronics market. After a slight dip in revenue during the global financial crisis, the global market for consumer electronics picked up in 2011. Favourable demographics, rising consumer incomes, and lifestyle trends helped to boost the global consumer electronics industry. Consumer electronics sales were estimated to reach US$1,210 billion in 2017 with a compound average growth rate of 5.4 percent over the next five years from 2012 to 2017.[1]

The market for anti-loss devices grew considerably since the early 2000s. Statistics showed that ten mobile phones were lost or stolen in the UK every minute; many of which were not found and the owner sustained a considerable loss.[2] The Transport for London reported 122,930 lost items in 2012, including 7,505 sets of keys. New York subway users and bus riders, on average, lost 19,000 items each year and 2,000 items were reported to have been lost at New York's Grand Central Station alone. The ferry service in Sydney collected 150 lost items daily.[3]

It was no wonder that the demand for anti-loss devices was growing rapidly. In 2011, the global anti-loss device market was valued at US$18 million.[4]

Small beginnings

Tan first met Lim when he was a second-year undergraduate student; both were doing internships at a real estate firm in Singapore. The two hit it off very well and decided to go into business together. A student at the business school at SMU, Tan was the one with the business and finance expertise, while Lim, with his engineering background, was the design and technology guru.

The two friends began to brainstorm ideas for a viable business. The idea for developing an anti-loss device came from Lim who once nearly lost US$32,000 in cheques, by accidentally leaving them in a bus.[5] Realising that it was a great stroke of luck that he managed to recover the cheques, Lim then thought of developing an anti-loss device to prevent people from losing valuable everyday objects. Lim recalled,

I accidentally left my folder containing those priceless cheques behind on the bus! …. I couldn't imagine having to face the buyer again to explain why I needed new cheques from him.

The idea was to develop a device that would provide a safeguard against losing objects which were intrinsically worth more than the device itself. The product was initially developed with overseas travellers in mind, so as to "… Minimise the trauma and trouble of losing valuables while travelling".

The product was to be light, portable, easy to operate and reasonably priced. The main feature of the device was the ability to activate an alarm from the user's phone if the item tagged with the anti-loss device was further than a certain distance from the user. Tan's idea was to be a market differentiator. After examining the competition, he concluded,

I did a search on the Internet and found that there was really nothing much out there. For electronics devices such as notebooks and mobiles, there could be security software. What I wanted was a device that could work equally well for electronic as well as non-electronic valuables.

In 2011, the two major international players in anti-loss devices were Cobra Tag and Blue Watchdog. The Cobra Tag, priced at US$59.95, came with a bi-directional connection between the device and the phone, so that finding one using the other was possible as long as it was within Bluetooth range.[6] The Blue Watchdog mainly targeted markets in the United States and Europe.[7] Its most salient feature was its 100 decibel alarm that could be triggered at a distance of more than 30 metres. Priced at US$77.14, its main shortcoming was that it did not offer protection against the loss of the mobile phone itself.[8]

[1] Global Consumer Electronics Industry 2012-17: Trend, Profit and Forecast Analysis, Lucintel, July 2012, http://www.researchandmarkets.com/reports/2312943/global_consumer_electronics_industry_20122017, assessed June, 2013.
[2] TrackingMobile.co.uk, How to Locate Your Phone: Lost Mobile Phone Recovery, http://trackingmobile.co.uk/how-to-locate-your-phone-lost-mobile-phone-recovery/, accessed June 2013.
[3] MicroTrax, Alarming Statistics, http://www.micro-trax.com/statistics/, accessed June 2013. 4 Innova Technology Pte Limited, company estimates. 5 US$1 = SGD 1.25, annual average exchange rate for 2012, www.oanda.com, accessed June 2013.

Tan concentrated on writing the business proposal and raising funds for the start-up while Lim focused his efforts on developing the technology behind the product. Lim explained,

Rick and I also fitted very well together. I really hate writing proposals – I'm an engineer, not a writer. [Rick] is in charge of the accounts, marketing and business development.

Innova Technology Private Limited was established as a technology start-up in January 2011, three months after the duo started brainstorming.

Funding and seed capital

The funding for the start-up came from various sources. In collaboration with SMU's Institute for Innovation and Entrepreneurship, Innova Technology's business plan received priority consideration under the SPRING Singapore grant scheme. SPRING Singapore was a government body that provided financial and advisory services to Singapore's small and medium-sized enterprises to support them at the growth and expansion stage. It was also a national standards and accreditation body, which also provided additional quality endorsement for companies expanding overseas. Innova Technology received US$62,500 from SPRING capital as seed capital for its venture.

Tan and Lim also contributed to seed capital from personal savings, which they had saved up from the time they had been working in the real estate business together.

In an innovative move, the partners tapped into the market for crowdfunding and obtained pre-orders for PROTAG worth US$10,000 from an online site called IndieGoGo. The results from the first round of crowdfunding were encouraging – by pricing the product at a discounted price, Tan was able to gauge market sentiment, drum up publicity and solicit feedback to improve the product prior to its full launch.

Tan was inclined to raise funds entirely through this promising source. However, after further deliberation, it was decided that he would also pursue other investors and technology incubator firms as they also brought with them expertise and management advice. Tan met Leslie Loh of Red Dot Ventures, a venture capital company, at a start-up pitch organised by TechInAsia, an online technology news forum that focussed on Asia. Innova Technology was able to raise US$400,000 from Red Dot Ventures and the National Research Foundation.

Red Dot Ventures provided Innova Technology with more than just funds. They provided support and valuable advice to the young entrepreneurs on appropriate packaging, etc. and also linked them with their contacts in Europe.
Tan commented:

[RedDot] had good experience in running big businesses and knew what it takes to make it work. I learned much in management processes, distribution, etc.

Product design and manufacturing

In January 2011, after receiving the grant from SPRING, Innova Technology set up a small office in SMU's Business Innovations Generator, where the duo worked on crafting the device specifications and putting together the manufacturing process and the go-to-market strategy. Working with SMU's Institute for Innovation and Entrepreneurship gave them an added advantage of having access to subject matter experts whom they could turn to for advice.

Product differentiation

The team worked on differentiating itself from existing competitors such as Blue Watchdog and Cobra Tag, which were listed companies in the United States (refer to Exhibit 1 for Competitive Analysis). Tan did comprehensive market research to understand the products that were currently in the market. His aim was to have a competitive advantage by combining a number of features into a package that the competitors did not offer, such as phone contacts, adjustable ring volume and variable alert distances.

[6] Antuan Goodwin, Cobra Tag Finds Your Lost Keys, Phone, Other Junk, Cnet, April 25, 2011, http://reviews.cnet.com/8301-13746_7-20057309-48.html, accessed July, 2013.
[7] Mike Hanlon, Blue Watchdog Turns Your Mobile Phone Into an All-purpose Anti-theft Device, Gizmag, September 26, 2010, http://www.gizmag.com/blue-watchdog-mobile-phone-all-purpose-anti-theft-device/16471/, assessed July, 2013. 8 US$1 = EUR 1.2856, annual average exchange rate for 2012, www.oanda.com, accessed July, 2013.

The development of the final product was through an iterative process of testing and re-designing. The team also relied on feedback from user groups based on beta test sales of PROTAG Generation 1. The hardware design was altered to ensure manufacturing consistency and, after a couple more iterations, PROTAG was ready for manufacturing (refer to Exhibit 2 for Development Roadmap). According to Tan, [9]

For a hardware firm like ours, we had to ensure that the process was right from the start. If not, it gets complicated when you have to talk to the manufacturer regarding changes.

The final product was the size of two credit cards stacked together – the thinnest of its kind in the market – that could be broken into two parts to be attached to objects as small as a keychain, wallet, bag or phone (refer to Exhibit 3 for PROTAG features).

PROTAG could be used with major phone operating systems such as Android and Research In Motion, which developed the ubiquitous Blackberry. The Android operating system had the advantage of being open source and had a big market. The Blackberry was typically used by business people who were more willing to spend and could see the value of such products.

PROTAG used Bluetooth 4.0 technology to connect the valuable item to a phone and alerted the user when their belongings were more than a certain distance (for example, 10 metres) away from them.

PROTAG was a significant step forward from existing anti-loss technologies. Prior to PROTAG, anti-loss devices used relatively simple technology to connect with the mobile phone and alert the user upon loss. PROTAG, on the other hand, was a comprehensive, 360-degree system, with an additional online component for tracking the phone as well, in case of loss:

- Before the loss of an item, the device would alert the user with the smart alarm feature that he/she was accidentally leaving his/her belongings behind.

- After the loss of an item, PROTAG could be used as a tracking tool as the smart locator feature would be able to pinpoint the location of the lost item. Upon reaching the location, PROTAG's smart radar feature would allow users to scan the area quickly and retrieve the item.

- In the case of permanent loss (such as an unrecovered theft or when the item was irretrievable), the PROTAG trace system, which was an online version of PROTAG, would allow the user to easily delete sensitive data from the lost item.

Modular manufacturing

Tan was keen to get the product into the market as soon as possible, yet the partners took care to develop the manufacturing process in a way that protected the company's intellectual property. Innova Technology had secured a patent for their product and took steps to ensure that manufacturers could not copy their device. Since the life cycle of electronic products was short, Tan and Lim devised a modular system which consisted of various parts or modules – hardware, hardware casing, firmware and four versions of software. This was to ensure that no single manufacturer could build the entire system.
According to Tan,

Although it would be hard to prevent copycats, Innova was banking on establishing a strong brand that customers could identify with.

To source from reliable manufacturers in China, the team selected factories that were rated as reliable from a Chinese Internet portal, Alibaba, which provided information on local businesses. It took three months to find reliable partners that Innova Technology could work with from a cost and quality standpoint.

[8] US$1 = EUR 1.2856, annual average exchange rate for 2012, www.oanda.com, accessed July, 2013.
[9] Bryan Koh, How Not to Lose Your Things Ever, The Business Times, February 6, 2012, www.businesstimes.com.sg, accessed July 2013.

Distribution and marketing

Singapore was chosen as a test market to launch PROTAG. Besides having the familiarity of being home to both entrepreneurs, the country also benefitted from widespread access to wireless connectivity in most parts of the island. This meant that Innova Technology was able to launch the Bluetooth 4.0 version of PROTAG, which had a battery life of up to several months as opposed to four to six days per charge.

Go-to-market strategies

With the technology, design and manufacturing aspects of the business sorted, Tan turned his attention to the marketing and distribution of PROTAG. He faced several crucial questions:

- Target customer segment: Should he mass market the product or focus on a specific customer segment? Which segment(s) should he focus on?
- Distribution channel: With multiple sales channels to choose from – distributors, retailers, direct (online) sales and corporate tie-ups – which distribution channel should he use? Should he use multiple sales channels or stick to just one?

The answers to these questions would help Tan decide the most appropriate go-to-market strategy for PROTAG, one that was both cost efficient and effective.

Decision time

As Tan stood looking at the white board, he carefully weighed all his options. He was trained to solve such problems, so why was he finding this so difficult? Had he overlooked something? And then it suddenly came to him. He hastily erased the board clean, picked up a marker, and began to draw out Innova Technology's marketing plan. What was his go-to-market strategy?

EXHIBIT 1: COMPETITIVE ANALYSIS

	Pros	Cons
Blue Watchdog	• Similar core functions to PROTAG • Break synch–alarm	• Loses signal • Rings unnecessarily • 100 Db sound excessive
Cobra	• Records the global positioning system (GPS) location and time • Two-way 'finder using phone app • Sends the GPS information to a user-defined contact list through email & text message	• Does not take into account if phone is the lost item

Source: Innova Technology Private Limited

EXHIBIT 2: DEVELOPMENT ROADMAP

aL Development	Remarks	Timeline
Mobile Programmer • Search for programmer • Program Flow of bluetooth software • If six is needed, integration of six into existing flow	• Identify if person has the require skills • Employment • Non-disclosure • Pay per month • Registering with the Office of Career Services for interns from SMU • Sourcing from nearby friends	17/01/11-28/01/11
Types of software for point of control • Identify type of platform	• If platform is iOS • Purchase/loan/search Mac • Download software development kit	12/01/11-19/01/11
Hardware Modification • Modify existing bluetooth products	• Find out how to mod existing BT devices • Purchase of bluetooth devices to mod • Areas of modification–Distance • Re-package aL into a different test form	1 month
Further develop aL using bluetooth • Identify type of platform for software	• Program aL software on platform	1 month

* Anti-loss (aL)
Bluetooth (BT)

Testing and collection of feedback from users on aL prototype • Identify users to be used for testing • Collect feedback	• Measure on user friendliness, ease of use, problems encountered, 'does it serve its purpose?' battery on aL, and phone re-sync timing, bug • 'Would you purchase it?' identify other problems • Areas that are done well (software etc)	1 week
Collected data to be used to determine following factors • Identify problems with the software • Identify if bluetooth is sufficient for operation • Identify problems with hardware	• Brainstorm on how to overcome each problem • Solving critical problems • Make needed changes	2 days
Modification based on data collected • Identify areas of modification • Modify software/hardware to suit market	Modify identified problems	0.5 month to 1 month
Hardware development • Search for hardware manufacturer • Determine cost per piece	• Finding hardware manufacturer • Providing manufacturer with requirements • Supplier agreement • Develop hardware prototype • Creating technical specifications needed	1 month
Integration and testing • Testing new software with prototype • User interface determination • Feedback collection	• Testing of upgraded software & hardware • Measure on user friendliness, ease of use, problems • Encountered, does it serve its purpose, battery on aL, battery on phone re sync timing, bug • Would you purchase it, other problems • Areas that is done well (software etc)	1 week
Collected data to be used to determine following factors • Identify new problems with the software • Identify new problems with the hardware	• Brainstorm on how to overcome each problem • Solving critical problems first make needed change	2 days
Modification based on data collected • Identify areas of modification • Modify software/hardware to suit market	Modify identified problems	0.5 month to 1 month
Further integration and development – identify next few OS to develop on – finding of programmers for individual OS	• Symbian, Andriod, RIM, Windows • Capabilities of programmers for development	1 month
External market testing • Identify market for testing	• Measure on user friendliness, ease of use, problems encountered, does it serve its purpose, battery on aL, battery on phone re sync timing, bug • Would you purchase it? • Areas to improve • Areas done well • Student group affiliated with Intitute of Innovation & Entrepreneurship	1 week
Mass production	• Mould pricing and creation • Mass production price per piece	1 week

Source: Innova Technology Private Limited

EXHIBIT 3:
PROTAG FEATURES

Source: Innova Technology, company website, www.innovatechnology.com.sg, accessed July 2013.

INNOVA TECHNOLOGY (B): Growing the Business for Anti-loss Devices

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Abstract

This case is the second part of a two-part series on Innova Technology, a technology start-up company based in Singapore. The two cases focus on:

Case (A)
– *Developing, producing and marketing a product innovation*

Case (B)
– *Growth strategies and its related challenges for a young technology company*

The case is set in November 2012, two months after the launch of PROTAG, a new anti-loss device developed by Rick Tan and his partner, Jonathan Lim. Tan is the chief executive officer of Innova Technology Private Limited, the company that manufactures and sells PROTAG. After a highly successful product launch, Tan is contemplating his company's growth strategy.

Tan and his business partner, Jonathan Lim, who is also the chief technology officer for Innova Technology, developed PROTAG, a new anti-loss device, using Bluetooth technology. The device, which is about the size of two credit cards stacked together, is synched to a mobile phone and can be attached to valuable personal belongings such as keys, wallets, handbags, passports and even phones. If the valuable item were to be separated from the person by more than a certain distance, the device would set off an alarm alerting the owner of its potential loss.

After extensive market research and encouraging results from beta test sales using the crowdfunding site Indiegogo, Tan was confident of his product. He executed a well-thought out marketing plan which targeted customers in the travel segment. Despite the high commissions charged by distributors, Tan decided to use this channel to market his product. He negotiated with Sprint-Cass Pte Ltd, a specialised supplier to travel retail and duty free channels which had presence in Asia and the Middle East. The first 5,000 devices were sold within two months and Tan had to rush new orders for manufacturing to keep up with the demand. The team was celebrating – in less than two years; Innova Technology had successfully made its foray into the market for anti-loss devices and established a niche customer base.

Yet Tan could not help but ponder about his company's growth strategy. Once again, he found himself at crossroads. What would his company's next steps be? Should there be a PROTAG Gen II? Should he consider expanding globally? Did his company have the capacity, capabilities and skill set to take their product beyond Singapore and Asia? How else could he grow his business?

Sitting in his newly rented office in Fuji Xerox Towers in the central business district of Singapore, Tan scanned through the company sales statistics. It was November 2012, just over two months since the launch of PROTAG, a new anti-loss device developed by Tan and his partner. The data looked very promising – the company had planned to sell 5,000 devices in Singapore over a period of five months; instead they had sold out in just two months.

Tan and his business partner, Jonathan Lim, who was also the chief technology officer for Innova Technology, had developed PROTAG, a new anti-loss device, which alerted the owner of a potential loss via an alarm. The device, which was about the size of two credit cards stacked together, was synched to a mobile phone, and could be attached to valuable personal belongings such as keys, wallets, handbags, passports and even children.

The idea to build and sell an anti-loss device came to the two young entrepreneurs in late 2010. Under the auspices of Singapore Management University's Institute of Innovation and Entrepreneurship, the partners set up a technology start-up. What followed was 19 long months in which Tan and Lim worked frenetically, to fine-tune the technology, develop a design with unique functionality, finalise the modular manufacturing process with partners in China, and plan and implement a go-to-market strategy.

The duo also worked tirelessly to raise additional funding for their product, which they believed had tremendous potential for global sales in a relatively new market.
Of the first batch of 1,000 devices manufactured, Tan and Lim obtained pre-orders for 500 pieces through IndieGoGo, a crowd-funding platform. They used the remaining pieces as samples for marketing. Consumer response through pre-orders provided the necessary validation that Tan was looking for – he now felt confident that his product would sell – and the revenues from the pre-orders provided a source of funds to continue manufacturing.

Yet Tan knew better than to get carried away with the initial euphoria. His business acumen recognised that the challenge was just starting. Innova Technology was a small start-up trying to create awareness amongst its target customers and establishing a footprint in a growing market. Tan was confident of his product but he also understood that a successful market entry had to be followed by a sound and effective growth strategy. What were the critical factors for growing his business? Was it innovation? Constant innovation seemed to be an important factor for any technology firm with short product cycles. Or was it expansion into new markets and new customer segments? Was Innova Technology prepared and equipped to take PROTAG beyond the familiar market of Singapore? Tan had to figure out the correct growth strategy for his company, one that was both successful and sustainable.

Development of PROTAG

Innova Technology was established in January 2011 by Rick Tan, an alumnus of the business school at Singapore Management University (SMU), and Jonathan Lim, a computer engineer from Temasek Polytechnic. The idea of an anti-loss device came from Lim, who wanted to develop a device that would provide a safeguard against losing objects, which were intrinsically worth more than the device itself.

Tan did comprehensive market research to understand the products that were currently in the market. His aim was to have a competitive advantage by combining a number of features into a package that the competitors did not offer. After several design iterations, the partners honed in on the final design that was light, portable, easy to operate and reasonably priced. The main feature of the device was its ability to activate an alarm from the user's phone, using Bluetooth technology, if the item tagged with the anti-loss device was further than a certain distance from the user. PROTAG was about the size of two credit cards stacked together, and could be tagged onto any valuable item.

PROTAG could be used with major phone operating systems such as Android and Research In Motion, which developed the Blackberry. It used Bluetooth technology to connect the valuable item to a phone and alerted the user when their belongings were more than a certain distance (for example, 10 metres) away from them.

PROTAG was a significant step forward from existing anti-loss technologies. Prior to PROTAG, anti-loss devices used relatively simple technology to connect with the mobile phone and alert the user upon loss. PROTAG, on the other hand, was a comprehensive, 360-degree system, with an additional online component for tracking the phone as well, in case of loss:

- *Before the loss of an item, the device would alert the user with the smart alarm feature that they were accidentally leaving their belongings behind.*
- *After the loss of an item, PROTAG could be used as a tracking tool as the smart locator feature would be able to pin point the location of the lost item. Upon reaching the location, PROTAG's smart radar feature would allow users to scan the area quickly and retrieve the item.*
- *In the case of permanent loss (such as an unrecovered theft or when the item was irretrievable), the PROTAG trace system, which was an online version of PROTAG, would allow the user to easily delete sensitive data from the lost item.*

Tan and Lim devised a modular system of manufacturing in order to protect the company's intellectual property, which consisted of various parts or modules – hardware, hardware casing, firmware and four versions of software. This was to ensure that no single manufacturer could build the entire system.

Marketing PROTAG

Singapore was chosen as a test market to launch PROTAG. Tan knew that a product like PROTAG would have wide marketability. The problem of accidentally losing valuables was not restricted to a particular demographic segment or a specific consumer profile; it was a general problem. Yet mass marketing PROTAG would require significant resources in terms of advertising and marketing costs. Tan therefore considered the option of a more targeted marketing strategy that would focus on a niche segment.

One such consumer segment for which loss of valuables was particularly traumatic was that of overseas travellers. Passports, wallets, phones and briefcases were just some of the items that could cause a lot of anxiety if they were lost or left behind in an airport or a foreign country. He felt that travellers who lost their valuables would have experienced significant pain, and when they were at an airport or travel centre after the loss, they would be more willing to buy such an anti-loss device. This segment would typically also be able to afford a product that cost over US$50 and would most likely be users of the Bluetooth technology required to make PROTAG work.

For distribution channels, Tan opted for intermediary distributors. Although distributors charged a high commission, he felt that the distributors would be able to help Innova sell their product without the company having to create and support its own sales force. In addition, the distributor had established contacts with retailers and knew how to position PROTAG in the most favourable light vis-à-vis other products to make a successful sale.

With the travel segment in mind, he negotiated with Sprint-Cass Pte Ltd, a distributor of computer peripherals, accessories and consumables in the information technology industry. Sprint-Cass was a specialised supplier to travel retail and duty-free channels with presence in Asia and the Middle East.

Time to celebrate or to contemplate?

PROTAG was launched in September 2012. Within two months, 5,000 devices were sold and Tan and Lim had to place new rush orders for manufacturing. The team was celebrating – in less than two years, Innova Technology had successfully made its foray into the market for anti-loss devices and established a niche customer base.

Yet Tan could not help but ponder about next steps. He once again found himself at a crossroads. What would his company's growth strategy be? Given the short product cycles in the technology segment – should there be a PROTAG Gen II? Should he consider expanding globally? Did his company have the capacity, capabilities and skill set to take their product beyond Singapore and Asia? How else could he grow his business?

RAINMAKER LABS: COMMERCIALISING A GREAT IDEA

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Abstract

In September 2013, Alex Leong, co-founder of Rainmaker Labs, considers where to invest the limited resources available to his technology start-up company in order to grow the business. Earlier that year, Rainmaker Labs launched ShopGuru, a mobile shopping application that enables users to earn and redeem loyalty points for browsing or shopping at select retail outlets. The ShopGuru application works hand-in-hand with Rainmaker's proprietary iSenze hardware, which sends signals to the ShopGuru mobile application and captures information about each customer using the application.

Keenly aware of the valuable customer data the company is collecting, Leong wants to further explore how this could be converted into a revenue opportunity. However, it has been a challenge to find investors, and after two and a half years the company is still cash negative and operating on slim margins.

Leong faces a common technology start-up dilemma – whether to focus his company's limited resources on expanding the business, or to strengthen its back-end systems and develop a stronger technology base to position future business growth. The flip side of this argument is equally relevant – technology is only as good as its commercial application. This case also discusses the role of strategic business planning in commercialising a cutting-edge technology.

Students will gain an understanding of developing a strategic business plan, growth strategies for start-ups, how to identify the 'right' partner, and outline the key characteristics of an entrepreneur. The case is suitable for undergraduate business management classes.

Twelve months into our start-up, we realised that we had bitten off more than we could chew. We had our hands full with hardware and software development, business development, building a client and customer base and looking for funding.

- Alex Leong, Co-founder, Rainmaker Labs Pte Ltd[1]

Alex Leong, co-founder of Rainmaker Labs Pte Ltd, was tired. It was the third successive late night that he and his two co-founders had spent in their office in Midview City, Singapore. Their company, which developed mobile applications and solutions, was under pressure. They needed to brainstorm options on how to make the business grow and generate revenues over the next six months. Leong felt a sense of déjà vu, as there had been many such all-nighters since the company was incorporated two and a half years ago in March 2011.

In May 2013, Rainmaker Labs had launched ShopGuru, a mobile shopping application that enabled users to earn loyalty points for browsing or shopping at select retail outlets. Those points could then be redeemed for rewards at participating vendors. The ShopGuru application worked hand-in-hand with the iSenze hardware, also developed by Rainmaker Labs.

The ShopGuru application captured the signal from the iSenze device installed in a retail outlet every time a signed-up customer entered the store, and transmitted information to the retailer, such as: when the customer walked into the store, how much time he or she spent there, how much money was spent per visit, and the frequency of visits.

The iSenze device and the ShopGuru application together formed the ShopGuru platform. Downloading the ShopGuru application was free for customers; the company made money by charging retailers a monthly fee for subscribing to the service, and earned a commission on the percentage of sales by ShopGuru users. Leong was also keenly aware of the massive amount of valuable customer data the company was collecting, and was working with an outsourcing partner to convert it to a source of revenue.

Right from the conception stage, Leong knew that his company had a clear early mover advantage – they were in possession of cutting-edge technology that had considerable untapped potential. They were also the first to introduce this technology in the retail space in Singapore. It had been an arduous journey for the founders, but they had made significant progress in building the ShopGuru ecosystem – developing the hardware and software platform, finding investors willing to fund their venture, and convincing retailers and customers of the value of signing up for their service. And it was paying off; as of September 2013, four months after its launch, ShopGuru had already signed up 160 retailers and 70 brands. There had been more than 10,000 downloads of the ShopGuru mobile application. However, the company was still cash negative.

Leong's challenge now was to decide where to go from here, given the company's limited resources. One option was to expand to other verticals beyond the retail sector, which would require growing and developing his sales team. The other alternative was to invest in building the company's back-end systems (that were currently outsourced), which would provide more control and greater flexibility in day-to-day operations.

Both strategies required time and money to pursue. Expanding into new verticals would surely help the company grow fast, but would the current systems be able to cope with more business? On the other hand, investing in the system's architecture would mean growth targets would have to take a back seat. Where should Rainmaker Labs focus and invest its resources in order to make its business sustainable and scalable? The three partners were involved in a heavy debate over these choices.

This case was written by Professor Arcot Desai Narasimhalu, Sarita Mathur and Adina Wong at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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[1] Alex Leong, interview by author, Singapore, August 2013

Bare beginnings

On March 6, 2011, three friends looking to develop a gainful business idea founded Rainmaker Labs. The trio, gifted with diverse yet complementary skills, began by brainstorming various business options and experimenting with various technologies. They stumbled upon an article on the use of ultrasonic sound waves with mobile devices. They came up with the idea of using this technology in the retail space, and soon began working on the technology to support the business proposition. Leong was working at Barclays Capital at the time, but invested his evenings and weekends into the start-up.

Developing a complex technology into a commercially viable product was not an easy project, and involved many moving parts. The team spent long, tiresome days building and fine-tuning the hardware device and the software algorithms. By November 2011, Rainmaker Labs was ready with a workable hardware and software prototype (refer to Exhibit 1 for an extract of Rainmaker Labs' business plan). Leong left his banking job to join Rainmaker Labs full-time. He recalled,

Most people thought we were crazy to leave our high-paying jobs to join the start-up. What motivated us was the fact that we were young. If we didn't do it now, we would never do it.

Just as the technology and the go-to-market strategy were being finalised, one of the founders left the company and a new partner joined to take over the technology development of ShopGuru. Leong observed,

The new team was much better aligned in terms of common vision and goals. A good business is not just about the technology or the business model. It is about the founders and the core team of employees. The 'holy trinity' of a tech start-up consists of a technical expert, a designer who knows how to make the product user-friendly, and a hustler with the business acumen.

Leong approached his alma mater, Singapore Management University (SMU), for assistance with the business. SMU's Institute of Innovation and Entrepreneurship provided the team with workspaces on the campus and linked them up with seasoned entrepreneurs who were able to provide advice and guidance for the start-up.

Finding funding

In December 2011, Rainmaker Labs received seed capital of US$77,000 from an angel investor who was impressed with the prototype.[2] This gave the company the much needed funds to hire a small team to further refine the technology and develop a business plan. Leong brought in two consultants for intellectual property and hardware development. One of these experienced advisors was the former chief executive officer of the Intellectual Property Office of Singapore, a statutory board under Singapore's Ministry of Law.[3] Leong believed that there should be segregation between advisors and investors, so that ShopGuru could be developed with advice from subject experts rather than investors whose advice "often came with an agenda" and may not always work in the best interests of the company. Leong and his partners also began contacting retail clients to talk to them about ShopGuru.

Between December 2011 and March 2012, Leong applied for many government grants but did not manage to secure any funding. He was getting increasingly frustrated as he felt that he had wasted four months without making any progress in the business. In April 2012, Rainmaker Labs decided to focus on private sources of funding, and in November 2012, the company received US$483,800 from Incuvest Asia, an early stage venture capital firm, which invested in technology companies.[4]

Building the ecosystem

The technology: iSenze and ShopGuru

iSenze was the hardware device embedded with proprietary technology that was developed by Rainmaker Labs. In Leong's words, it was the "backbone of the business". The device was based on ultrasonic sound wave technology that enabled it to transmit unique signals to pre-specified smartphone applications. Once a retailer signed onto the service, the iSenze device was installed in the shop. Upon activation, the location of the smartphone users could be accurately pinpointed within a three- to five-metre radius, and was not permeable through walls and windows, making this technology perfect for use inside a retail store.[5]

[2] US$1 = SG$1.30, monthly average for December 2011, www.oanda.com, accessed February 2014.

Leong was proud that his company stood at the forefront of a new technology, but he also recognised that he had to leverage this early mover advantage. The use of sensors with mobile applications was just gaining traction, and the Asia-Pacific region had yet to tap into the huge potential offered by this technology. Leong stated,

The possibilities are tremendous. We were at the beginning of a revolutionary technology, and we had not even begun to scratch the surface.

To complement the iSenze hardware, the ShopGuru application was created to enable Apple's iOS and Android smartphones to receive the signals transmitted by the iSenze device. The purpose of the ShopGuru application was to enhance the shopping experience and reward customers for visiting a store and buying from participating retailers.

Value proposition for customers

Once the user had downloaded the application and created a ShopGuru account, he/she would be credited with points whenever he/she walked into, or made a purchase, at a retailer where an iSenze device was located. Customers would be rewarded for just entering a store and browsing. Each customer had a unique ShopGuru account, which was credited with reward points at the checkout when a purchase was made. Users could also send a link to the ShopGuru application to friends to earn referral points. Points in the account could be accumulated and redeemed for rewards such as free coffee and movie tickets, or even be used to make donations to charity.

The company took care to address all privacy issues, as the ShopGuru application enabled the company to collect data on user activity, such as timing, frequency of store visits and value of spend. The iSenze would transmit signals whenever it detected a ShopGuru application within its radius, but only if users had purposefully turned on the application on their smartphones. Therefore, consumer tracking was possible only when the user made a conscious decision to use the service.

Value proposition for retailers

Retailers could gain from greater customer footfall and potentially greater sales, as customers knew they would be rewarded for visiting, and buying at, a participating store. In a sense, retailers could reap the benefits of a loyalty programme without undertaking the administrative costs and efforts of running it.

The data that was collected from customer interactions was also of great value to retailers who subscribed to the ShopGuru platform. Based on information that the system was able to capture, Rainmaker Labs could report on items such as when customers walked into the store, how much time they spent there, how much money they spent per visit, and the frequency of visits. Such customised market intelligence would be highly attractive for retailers looking to better connect with their customers.

Leong knew that his company was sitting on a mass of valuable raw data, which could become a key revenue pillar if Rainmaker Labs could process the data using customer relationship management (CRM) market analytics and sell it back to the merchants. Consequently, in March 2012, the company partnered with a CRM service provider based in Singapore to develop the back-end systems architecture that would support the ShopGuru platform (refer to Exhibit 1 for an abstract of the company's business plan).

The revenue model

The iSenze device costs about US$79 a piece to manufacture, and was initially given to the retail merchants free of charge.[6] Rainmaker Labs planned to start charging for the hardware device after a promotional period of one year. The company earned revenue from two sources: retailers were charged a monthly fee for subscribing to the service, and Rainmaker Labs earned a commission on sales, which was negotiated with merchants individually. A part of this commission was given back to customers as rewards, constituting about five to ten percent of the total commission. On the user side, the ShopGuru application could be downloaded for free, and did not earn any revenue for the company.

[3] Intellectual Property Office of Singapore, "What Do We Do?", http://www.ipos.gov.sg/AboutUs/WhatDoWeDo.aspx, accessed February 2014.

[4] US$1 = SG$1.22, monthly average for November 2012, www.oanda.com, accessed February 2013. [5] Rainmaker Labs Singapore, "Presence: Indoor Positioning", http://www.rainmaker-labs.com/technology/, accessed February 2014.

Coalition loyalty

Leong and his partners spent endless hours with retailers and mall operators, convincing them of the value of signing up for the ShopGuru service. Initially, the ShopGuru platform was targeted at retail merchants, or a group of retailers in a particular mall, who were not affiliated with each other. This approach was taken in order to build a 'coalition loyalty' amongst retailers in a specific location. Once the mall has agreed, every store in the mall was covered by the service. As more malls subscribed to the ShopGuru service, it became more attractive for users to shop in those premises.

In the long run, the plan was to eventually create a 'universal coalition loyalty' scheme, which would go beyond retail shops, to include food and beverage outlets and even services. For example, the Nectar card (www.nectar.com) offered by Sainsbury's, the grocery chain in the UK, allowed cardholders to earn rewards not just on goods bought at the grocery store, but also on services (such as insurance, travel and telecommunications), online purchases, and even from simply watching advertisements on television or doing an Internet search. The Passion card in Singapore was a similar concept, and users could have multiple uses for the card in addition to obtaining reward points and discounts from merchants, such as paying for public transport and borrowing books from the national library. The ShopGuru platform had gone a step further – it did away with a loyalty card altogether and took the concept of customer loyalty schemes into the digital age.

ShopGuru goes live

The iSenze and ShopGuru systems went through several iterations before the hardware and software were ready to market. By May 2013 – over two years after Rainmaker Labs was set up and 18 months since they developed the first prototype – the company was ready to take their product to the market. On May 15, ShopGuru was officially launched at Bread and Butter, an upmarket fashion boutique in Mandarin Gallery at Orchard Road, the premier shopping district in Singapore.

The combination of the iSenze hardware and the ShopGuru software was sold to retail merchants as an innovative way for them to capture more foot traffic coming into their stores. To attract end users to download the application, an online video featuring local celebrities was posted on the company's website to show how easy it was to use the application, and to highlight the benefits that were associated with using it.[7] By September 2013, four months after the launch, ShopGuru's reach had increased to 70 retail brands, covering more than 160 stores. More than 10,000 customers had downloaded the ShopGuru application.

The road ahead

Despite successes in spreading the reach of the application, two and a half years after being founded, Rainmaker Labs was still running cash negative. Leong observed,

At least 20 to 30 percent of our budget was spent on mistakes. It is an iterative process, and we need to learn quickly, else the learning comes at a huge cost.

Notwithstanding the heavy costs, long lead time and the steep learning curve, the team at Rainmaker Labs trudged on because they were convinced of the tremendous potential offered by their business proposition. At that time, such a service was not being offered by any other company in Singapore or elsewhere in the region.

Leong also realised that Singapore was a difficult market to break into with a new technology and a difficult place to expand a business. First, it was a relatively small market. Second, being a country with high Internet penetration, Singaporeans were already inundated with many technology-based promotions, and were not easily persuaded to adopt yet another application which might seem to offer more of the same. Last, physical retailers were hesitant to invest in new technology and preferred to 'stick with what they know', unless they saw real value in doing so. It would take time to engender a change in mind-set. Leong felt that his company needed to do more to engage and educate the end users, as well as the retail and other clients.

Although most start-ups took anywhere from three to five years to become profitable, the company was at a crossroad. It was running thin on resources, and any future investment would need to be thoroughly evaluated before committing funds to it. Leong and his partners considered various options to make the business scalable and sustainable.

[6] US$1 = SG$1.26, monthly average for September 2013, www.oanda.com, accessed February 2013.
[7] Click on the following links to view the advertising video and the launch video for ShopGuru: Advertisement video: http://www.youtube.com/watch?v=XBnG1IIHsIE
Launch video: http://www.youtube.com/watch?v=INX8IrbvWGA

Expanding to other verticals

One option was to scale up the business to verticals other than retail. In addition to the retail space that Rainmaker Labs was already targeting, there were endless possibilities to the scope of the ShopGuru platform. To build a more powerful and comprehensive proposition to merchants and end users, the ShopGuru platform could extend to myriad products and services in a similar vein as the Nectar or Passion card; for example, areas such as food and beverage, travel, telecommunications, and even financial services. Through vertical expansion, Rainmaker Labs could increase the uptake of its service and expand its client base to offset the invested research and development costs of developing the hardware and software.

However, Leong was aware that breaking in and building relationships in each vertical or industry would require time, effort and money. All company resources would have to be focused on business development, and on expanding and training the sales team across different verticals. He was also concerned about whether the existing back-end systems had the capacity and the flexibility to support such a scale up.

Building the back-end systems

An alternate option was to first focus on, and invest in, the back-end systems before expanding the business. Although the system's architecture developed by the CRM partner was robust, it had not been used to its potential. Bringing it in-house could give Rainmaker Labs greater control over these assets, and in turn enhance flexibility and speed in adapting to market changes. Leong explained,

So far we have been driving with a Toyota engine, which offers standard service. It may serve our purpose currently, but for future growth, and to differentiate ourselves from the competition, we need to switch to a BMW engine. And we will need to build the BMW engine ourselves in a way that it is customised to our requirements and offers the flexibility to quickly adapt to our dynamic needs.

Also, as the business grew, Leong was worried that the back-end systems may not be able to handle the new flow of business. Building a 'BMW style' back-end systems would cost Rainmaker Labs between US$79,400 and US$158,700.[8] It was a huge cost, and one that the company could not afford without a second round of funding. However, doing so would improve the technology platform, which would help the company with its growth plans.

What next?

"Our resources were few, and the options for growth were many", stated Leong. His partners and him knew they had a workable technology and a viable business model, but the great idea combined with the founders' sweat equity had not yet translated into profits. ShopGuru was still cash negative, and the business was working on slim margins.

Leong and his partners had to decide what to focus on next. Should Rainmaker take a step back, build its own CRM system and focus on fixing the internal plumbing? Or, should it invest more time and money in expanding its network to other verticals in Singapore?

EXHIBIT 1:
BUSINESS PLAN FOR RAINMAKER LABS (JANUARY 2012)

Products and services

Shopguru was a technology platform that aimed to revolutionise customers' shopping experience. ShopGuru's core business for the first 18 months since inception was to launch ShopGuru – a shopping application available on iPhone and Android. The ShopGuru business revolved around our Security Signal Emitting Device (SSED) technology, which allowed ShopGuru to reward smartphone users for simply walking into a retailer's store. It wanted to provide a service to retailers that could:

- *Increase foot traffic by rewarding consumers for walking in.*
- *Increase conversions by enabling focused and targeted marketing to influence the consumers' purchasing decisions while they are very near or in the store.*
- *Incentivise conversions by rewarding consumers for purchasing promotional items and/or for larger purchases.*
- *Provide ShopGuru Analytics. Provide retailers with in depth analytics incorporating buying patterns, demographics and statistics to aid business decisions.*

[8] US$1 = SG$1.26, monthly average for September 2013, www.oanda.com, accessed February 2013.

Existing market problem

Physical retailers faced a constant challenge to drive foot traffic into their stores. Sales conversion rates were generally high for physical stores ranging from 20 to 90 percent, depending on the type of retailer. However, getting customers into the store was the primary issue. Even when retailers visually saw a customer entering the store, they were unaware of the customer's demographics, preferences or shopping history, and thus were unable to up- or cross-sell their products, or even push the most relevant products to him/her. Google made US$29.32 billion of revenues in 2010, of which 97 percent was attributed to Google Adwords –essentially 'Pay per Click' advertisements to entice online users to click onto the websites of online businesses that sell products and services of their interest. Businesses were willing to pay up to US$27.80 to US$54.91 for the top 20 most expensive keywords online to simply redirect web traffic into their site. Unlike the online world where behavioural e-commerce targeting engines had reduced the wastage of marketing dollar and enhanced marketing efficiency through utilising consumers' web history heuristics, the physical retail world had not been able to close this sales loop of targeted marketing. This was due to the fact that no existing technology had been able to bridge online technologies into the physical world.

Proposed solution

Location-based technology available to the masses were currently only able to provide the geo-positioning with an accuracy of up to a range of 50 to 100 metres. A smartphone was able to determine its location by utilising one or more systems including global positioning system, WiFi, and Bluetooth, etc. The flaws of these technologies were that they are accurate up to a range of 50 to100 metres; were not sufficiently timely; and were represented by longitude and latitude in the systems but not height. The company's technical solution to these restrictions was the SSED prototype that it had built. The SSED was installed into retail store entrances and cost less than US$77 (SG$100) when manufactured in bulk.[9] Its primary purpose was to emit a security signal that can be associated with a location, which the company calls a Unique Store Identifier (USI). The smartphone upon receiving the Security Signal was able to identify its location accurately up to a range of three to five metres. This was a substantial increase in accuracy of 95 percent compared to current technologies.

Business application

With the SSED subsequently being able to accurately pinpoint a smartphone's location, the implications for both consumer and retailer were significant and potentially market altering. The company had built ShopGuru, a technological platform that aimed to revolutionise the personal shopping experience. The ShopGuru system consisted of an application across iOS, Android, Blackberry and other external device that acted as a receiver for Security Signals at partner retail stores. ShopGuru was able to deliver exceptional value to both retailers and consumers alike that was not possible with previous technologies. One of ShopGuru's critical functions was to provide a mass scalable service to consumers to deliver adaptive targeted personalised offers based on their demographics, preferences and history, as well as on the accurate identification of each consumer's location and identity. ShopGuru also rewarded consumers in the form of loyalty points for all steps along the sales loop. These loyalty points were cumulative and could be redeemed in the form of cash vouchers. The cost incurred by the retailer's use of ShopGuru was entirely derived from the added value the consumer brings.

Source: Rainmaker Labs, Extract of company business plan, January 2012.

[9] US$1 = SG$1.30, monthly average for December 2011, www.oanda.com, accessed February 2014.

QUANTINE: VIRTUALISING THE INTERVIEW PROCESS

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Abstract

The case is set in January 2012, and begins with Kenneth Yap, the founder of Quantine Pte Ltd, strategising on an effective growth plan for his company. Quantine was a job candidate pre-screening service provider, which specialised in asynchronous video interviews. In the three years since its inception, market forces and internal factors had necessitated a change in its original corporate strategy. The business had started out in 2009, focusing on competency assessments for testing technical skills for the information technology industry. It also provided aptitude tests for companies to assess candidate qualities such as numerical skills and the ability to pay attention to detail. Due to strong competition in the market, likely demise of the technology for its platform, and lack of funds, Quantine had been forced to re-evaluate its business proposition. It decided to focus on a different business idea – a new method of candidate pre-screening: on-demand video. The Next-5 platform, as it was called, was created as an ecosystem for recruitment agencies, companies and prospective employees.

From 2009 to late 2011, Quantine had gone through four rounds of fund raising. With the latest grant of US$392,000 from the National Research Fund, Yap wondered how he could best use this money to market his company's suite of pre-screening services, and implement an effective growth plan for the company.

This case can be used to teach concepts related to new product development strategy. Students will have an opportunity to understand the challenges faced by a start-up, and the reasons for these challenges. They will learn that the maturity of the market is a key determining factor in product development strategy. Students will also get an overview of the stage-gate process to product development, and discuss its strengths and weaknesses. They would understand the criteria for choosing an investor, and the contribution investors should make to a start-up.

People were already familiar with Skype and YouTube – why not make interviews asynchronous?

- Kenneth Yap, Co-Founder and COO, Quantine Pte Ltd

Kenneth Yap, co-founder and chief operating officer of Quantine Pte Ltd (Quantine), looked at the map which showed the location of the global users of the Singapore-based company's virtual platform. These were located throughout Asia, Latin America, Europe and the Middle East. It was January 2012, and in the three years since the company was founded, market forces and internal factors had necessitated a change in its original corporate strategy.

Quantine was a candidate pre-screening service provider which specialised in asynchronous video interviews for jobs. When the company was first conceived, Quantine's founders decided that it would go into the business of candidate pre-screening. The business initially focused on competency assessments to test technical skills for the information technology industry. It also provided aptitude tests for companies to assess a candidate's qualities – such as numerical skills and the ability to pay attention to detail. However, in 2009, competency assessment was a very competitive market, with many larger, well-established players. Moreover, Quantine was planning to run its platform using Adobe Flash technology, and there were rumours that it would soon be demised. Quantine also recognised that it had insufficient funds to develop new competency assessments on its own. Thus, it decided to focus on a new method of pre-screening candidates: on-demand video.

Subsequently, in 2010, the Next-5 platform for on-demand video was created, which served as an ecosystem for recruitment agencies, companies and prospective employees. Recruiters could post available jobs on the platform, and organisations could reach out to potential candidates or screen available candidates. As for candidates, the platform comprised two main parts. First, it had a pre-recorded video which served as a video cover letter for candidates. Second, it had pre-recorded questions from the interviewer, and candidates were given only one opportunity to record their answers.

Marketing the platform was initially difficult, as the company was considered a start-up and prospective clients needed more confidence in its abilities to deliver. Thus, from the beginning, Quantine cast a wider net to reach out to companies outside Singapore. It also did not follow a fixed pricing model, and charged different prices for different market segments.

From early 2009 to late 2011, Quantine had gone through four rounds of fund raising. With the latest grant of US$500,000[1] from the National Research Foundation (NRF), Yap wondered how he could best utilise the money to market his company's suite of pre-screening services, as well as implement an effective growth plan for the company.

This case was written by Professor Arcot Desai Narasimhalu and Adina Wong at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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[1] US$1 =SG$ 0.783 Oanda.com, http://www.oanda.com/currency/converter/, assessed August 30, 2013.

Founding quantine

> **When we started, we decided that the company would focus on the pre-screening phase of candidate recruitment.**
> - Daryl Low, Co-Founder and CEO, Quantine Pte Ltd

Quantine, an acronym for 'quantitative routine', was founded by friends, Daryl Low and Kenneth Yap. They met when they were students at the School of Information Systems at Singapore Management University, and worked together on projects since their second year of study. Their final year project was on creating a system to manage software developers. Subsequently, in their final year of university, this concept was extended to set up Quantine, focusing on the pre-screening of potential job candidates for businesses.

The premise for starting competency assessments was simple. Having a background in information technology and knowledge of this industry, Low and Yap realised that when it came to hiring software developers, there was a common phenomenon of 'paper tigers': programmers who would have several certifications that looked good on their resume, but often fail to achieve even a passing score when they sat for a simple proficiency test on their actual skills.

As there were hundreds of applications received for each job opening for software developers, companies were looking for a standardised test that could be used to identify candidates who could perform promptly on the job .

It was with the intent to separate the 'paper tigers' from those who were able to quickly deliver work that Low began to create in-house technical competency tests for software developers. At the same time, Quantine also tied up with partners, such as Walden Testing in Canada, to provide aptitude tests for candidates and round out the list of competency assessments offered on the platform.[2] This went on for the best part of 2009, but there were factors that eventually made Quantine shift its business focus.

Changing strategy

Early in 2010, Quantine decided to create a new platform to pursue a fresh business strategy for the candidate pre-screening market: on-demand videos. The idea for virtual video interviews had already been discussed by the team during the initial brainstorming sessions. Low explained, We had actually talked about virtual interviews before in 2009, but did not start with the idea because we had no idea how to put it into motion, and the market was not ready for it. If we had, we would have been the first in the world. But in early 2012, the founders decided to take up this idea and run with it for three key reasons: strong competitors in the existing business, developments in technology and financial limitations.

Intense competition

The market for competency assessments was fierce and established, with large players such as the UK-based SHL Group providing a suite of talent measurement solutions, as well as resources for employee development and succession planning.[3] Hence, Quantine would either have to do better than the existing competitors, some of whom, such as Accenture in the UK, also offered other complementary services, or differentiated itself with its offering. At the time when they were considering a strategy change, the only competitor for on-demand videos was Hirelabs, a United States company based out of the country. Hirelabs not only provided a list of aptitude assessment tests, but also provided a tool called Occupational DNA to determine the traits required for different job profiles, that employers could test for using their competency assessments.[4]

Technology developments

There was also a major shift in the technology requirements for Quantine's online platform, which ran on Adobe Flash technology. In October 2009, when Adobe announced the launch of its upgraded suite of services for smartphones, Apple decided not to support this upgrade.[5] At that time, Apple's smartphone, iPhone, had 10.8 percent share of the smartphone market and was growing quickly.[6] Apple's decision with regard to Adobe Flash disrupted the reachability of Quantine's platform. Quantine found itself investing capacity for a customer base that had shrunk overnight. There were also worrying rumours that Flash

[2] The Shi Ning, "Online Recruitment Goes Virtual," The Business Times, January 2, 2012, on SMU IIE website, http://www2.smu.edu.sg/news_room/smu_in_the_news/2012/sources/BT_20120102_1.pdf, accessed August 2013.
[3] SHL Group Ltd, via OneSource Information Services, Inc., accessed August 2013.

would eventually be demised. Hence, Quantine decided to take the precautionary step to move to a new platform. It started hiring permanent staff and interns to work on the new in-house platform. Previously with the Adobe Flash platform, Quantine had tried outsourcing the programming to third parties. However, they soon discovered that there were only a handful of programmers who were well-versed in Flash programming in the market. Moreover, those who charged less and met the company's budget were likely to deliver lower quality work. Also, it was believed that as third parties, they may not be committed to doing a stellar job. With their new in-house approach, Quantine built a new platform from scratch in six months.

Funding

In the first quarter of 2009, Quantine managed to secure US$39,200 of funding from SPRING Singapore, a government-funded scheme that supported budding Singaporean entrepreneurs. The grant was provided under the Young Entrepreneur's Scheme, and Quantine managed to apply for and obtain the grant just shy of Low's 25th birthday, after which they would not have met the age criteria for application. But by the end of 2009, Quantine's existing funds were running low, and it did not have the budget for sufficient research and development to extend their line of competency assessment tests. It became clear that in order to continue running the business, it would have to either obtain more funding soon, or come up with a new business idea that leveraged on the existing technology, and was a viable alternative. This new business idea was Next-5.

Next-5

Yap explained the reason for naming the new platform Next-5,

When you think about interviewing or shortlisting people, you think in series of fives – top five candidates, next five candidates… or you don't take more than five minutes to know if you want to hire this person or not.

The Next-5 product was a platform for on-demand videos, and Quantine's aim was to create an ecosystem for recruitment agencies, companies and job candidates to interact. Recruiters could post available jobs on the platform, organisations could reach out to potential candidates or screen available candidates, and candidates could apply for jobs through the platform.

Videos

Two types of videos could be recorded by candidates and stored on the Next-5 portal for prospective employers to view. The first was the video 'cover letter', where candidates would prepare a short video of a few minutes that answered basic questions such as their educational background, skill sets and work experience. Similar to a cover letter, this video could be re-recorded and revised to the satisfaction of the candidate, and different versions could be stored for job applications to different organisations or job roles. The second type of interview was conducted 'live' with the candidate answering pre-set questions provided by the organisation. When the candidate started the process, he or she would be presented with a question, with 30 seconds to read and reflect – this is in line with a live interview. Then he or she would have to respond, and this response could not be re-recorded.

Benchmarking

A key feature of the portal that enabled companies to do a pre-screening of the relative suitability of the candidates was Next-5's benchmarking tool. As the portal also offered competency assessments to verify the skill sets that candidates had on paper, candidates who performed the assessment could be benchmarked, either against their peers applying for the same job, or even against the portal's entire universe of candidates who had previously completed the same assessment. This would allow the company to assess the calibre of the candidate before choosing to view their video cover letter.

Another metric that could be customised for the organisation was a weighted score of the candidates' experience and competency assessment scores. Companies could specify the relative importance of different criteria, such as years of work experience, and this would be combined into a weighted average as an indicator of the candidates' fit for the job. In this way, companies could tailor their knowledge of what qualities were required to be successful in the job, and compare these with the experience and background of the candidates.

[4] Hirelabs, "Occupation DNA," Videos & Demos, http://www.hirelabs.sg/videos/, assessed August 2013.
[5] Patrick Seitz, Adobe Brings Full Flash To Smart Phones But iPhone The Big Exception, Investor's Business Daily (Los Angeles, CA), October 6, 2009, via NewsBank, EBSCOhost, accessed August 2013.
[6] Jim Dalrymple, "Apple Doubles its iPhone Market Share," May 20, 2009, http://news.cnet.com/8301-13579_3-10245339-37.html, accessed January 2014.

Selling the idea

How to get candidates on the portal

The recruiting firms could upload their LinkedIn company profiles on the portal, and specify areas of specialisation and geographies that they cover. While these recruiter profiles were public and searchable, candidates' profiles and videos were confidential. These would only be available to companies and recruiting agencies if the candidate applied for specific jobs on the portal. In the case of companies that had posted jobs and received applications on job boards that were external to the Next-5 portal, they could, if they had a ready pool of candidates to interview and assess, extract the email addresses of their candidates onto a spreadsheet. The emails would then be uploaded onto Next-5 after which email invites would be sent out to candidates who could apply for a specific job that was posted by the company. This was by invitation only.

Although the portal was aimed at performing candidate screening for companies which had numerous applicants applying for a particular job, it also had an additional feature that helped the companies advertise job vacancies on social media sites such as LinkedIn, Facebook and Twitter to widen their candidate pool. The portal would then aggregate all the responses from the various social media in one place for the hiring organisation.

Marketing

A primary advantage for companies that used on-demand videos for recruiting mostly junior and mid-level staff was that it could speed up the recruiting process by up to 70 percent and save up to 80 to 90 percent of the costs associated with first round screening interviews – which was the cost and time used to coordinate schedules and to fly to another country for face-to-face meetings.[7] The on-demand interviews, with the pre-set questions decided by the company, could be passed on within the organisation to interviewers based in different time zones. Furthermore, the same questions asked repeatedly to the same candidate across interviewers would not be an issue. For the final round of interviews, which required a more interactive dialogue, the company could choose to adopt the face-to-face approach. This method of asynchronous video interviews also trumped YouTube in terms of privacy and Skype for coordination requirements. Interestingly, candidates who took the competency assessments could also voluntarily withdraw their application after their scores on the tests were revealed.

To market Next-5, Quantine focused on selling the benefits of the platform to recruitment firms and organisations, particularly Human Resource (HR) departments. They adopted the strategy of selling their product even as improvements were being made, instead of waiting for the 'perfect' product. Over time, they refined their target market to large multinational corporations, and small and medium-sized enterprises of more than 200 employees. In addition, the platform was also promoted to universities where first-time job seekers could record mock interviews to work with their career coach, as well as to expand their online professional presence for internships or their first jobs.[8]

To reach their target audience, Quantine would cold call or send personalised direct mailers to the HR contact person in the organisation. In an age where the use of email and social media was widespread, Quantine chose to take the old fashioned route of paper mail to add that personal touch. To get the most out of each advertising dollar, they also placed advertisements in human resources magazines.

One of the key problems Quantine faced was the fact that they were a young company. They would always be asked "How old is your company?", and the magic number that the prospective client was looking for was three years. Any less than that, and the prospect would most likely listen politely to the presentation and decline to sign up for the platform.

Another challenge for Quantine was changing the mind-set of the people in human resources, who were accustomed to the traditional method of in-person interviews. This was particularly challenging in Singapore, where it was possible to travel from one end of the island to another easily within a day for an in-person meeting.

[7] Ibid.
[8] Next-5.com, "About Us," http://next-5.com/AboutUs, accessed August 2013.
[9] Online Recruitment Goes Virtual, Business Times, January 2, 2012, on SMU IIE website, http://www2.smu.edu.sg/news_room/smu_in_the_news/2012/sources/BT_20120102_1.pdf, accessed August 2013.

Thus Quantine was open to promoting the platform to companies in any country, and even managed to sign up a client in Cyprus.[9] By January 2012, the company had ten clients throughout Asia, Latin America, Europe and the Middle East. These comprised three educational institutions, four small-to-medium enterprises, and three multi-national corporations (one of which covered recruitment for several countries: Singapore, China, Taiwan, Hong Kong, India and Indonesia).

Pricing

Setting the right price point for the platform was a bit of a trial and error process for Quantine. The customer's willingness to pay varied according to factors like the size of the company, as well as the country where the company was based (refer to Exhibit 1 for the Next-5 employer price plan). The main charge was for the videos, where the companies were only charged for each video selectively unlocked, and not per video received. The competency assessments were part of an 'a la carte' menu which was charged separately.

Funding and investors

Funding

Quantine's first client, Agricultural and Veterinary Authority of Singapore, signed up in part because of the confidence given by the SPRING Singapore funding, which the client saw on Quantine's website. By late 2010, surviving only on this initial funding, Quantine had already managed to bring in revenue that equalled the funding amount of US$39,200. Subsequently, the company received funding from angel investors and private investors. Late in 2011, a grant of US$500,000 was received by the National Research Foundation's Technology Incubation Scheme (TIS-NRF). The National Research Foundation of Singapore was a government body that was founded for the purpose of fostering innovation and promoting research and development for early-stage technology-based enterprises in Singapore.[10] Much of the NRF funding was devoted to improving the Next-5 platform.

Investors

When it came to investors who provided funds to Quantine, Low's experience was that,

If you ask advice from ten people, you will get 11 comments. They will never get what you are trying to do.

Quantine's founders recognised that there were many people along the way who had helped them during the early days. The Singapore Management University Institute of Innovation and Entrepreneurship (IIE) provided Quantine a space in their incubator to work out during the initial phase. As part of an "extrapreneurship"[11] programme under the IIE, where experienced entrepreneurs set up businesses together with students just starting out, Eddie Chau, SMU's entrepreneur-in-residence and an entrepreneur in his own right in the information technology space, jointly set up Quantine with Low and Yap. Both Low and Yap agreed that having Chau on board helped them to avoid elementary mistakes that most start-ups would have made. They also acknowledged that having Chau's stake in the business helped them raise their credibility when it came to raising funds.

To keep the company nimble and have 'no dead weight' in the team, Quantine managed an ongoing 'shareholders clean-up policy' where the decision-makers in the company were kept on an active list and updated regularly depending on how active and effective they were. The company started with four shareholders, and over the three years since its inception, it had undergone various additions and departures to the shareholding team, with the number decreasing to three and finally to two shareholders.

Low recognised that, finally, the founders of the company were the ones who needed to make key decisions on their own. He accepted that there would be investors who just wanted to provide funds in exchange for an equity stake, but would not be involved in how the company was run. Or there would be investors who would want to have a say, but not put their reputations on the line by connecting Quantine to their contacts – which was the most effective and key way in which they could contribute to the company's success. At the end of the day, being the niche player that it was, what Quantine really needed was concrete connections from people who were well-versed in the area of human resources, and many investors did not have that kind of in-depth knowledge.

[10] National Research Foundation, "About Us," http://www.nrf.gov.sg/nrf/uploadedFiles/20120309%20TIS%20Press%20Release%20(FINAL).pdf, assessed August 2013.
[11] Extrapreneurship happens when a problem and opportunity is identified by business practitioners through first-hand experience, who bring the idea to potential collaborators (typically students at a university, when SMU first came up with this concept) who can help solve the problem.

Virtually growing

Three years after Quantine had been founded, the company had undergone a change in strategy as it moved from competency assessments to on-demand video interviews. Although the company had managed to cover its original costs within nine months after their first round of funding of US$39,200 in 2009, it still had to think about how to scale up business in a more directed and effective manner.

Yap thought hard about the next step for Quantine. It had a good product, and had enough funds to sustain the company for the next few months. Also, through their hard-earned experience, the founders had learned to trust their own judgement when making key decisions. The question was now – how could Yap best use the US$500,000 that they had received from their latest round of funding to market his company's suite of pre-screening services, and implement an effective growth plan for the company?

EXHIBIT 1:
NEXT-5 PRICING PLAN FOR EMPLOYERS

	Free Plan	Basic	Start-up	Business
(US$)	free	$100	$382	$1,322
Watch videos of candidates	2	8	35	135
Active job posts	1	3	5	unlimited
Job re-posts per job post	1	3	5	unlimited
Social media broadcasts	✓	✓	✓	✓
Collaboration tools	✓	✓	✓	✓
Multiple accounts	✗	✗	✓	✓
Personalised career page	✗	✗	✓	✓
Integration services	✗	✗	✗	✓

Source: Next-5 (August 2013), Plans & Pricing, htt http://next-5.com/EmployerAccount/Plans (accessed 30 August 2013).

JUNGLE BEER: AN ENTREPRENEUR'S JOURNEY

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Abstract

This case follows Aditya Challa, a craft beer aficionado, whose passion for good beer led him on an international quest to study the art of brewing in Scotland and eventually to Singapore, where he started a microbrewery business with his friends in 2011. By October 2012, sales of his craft beer had been increasing 20 percent per month, bringing up his production to about one-third operating capacity. However, future growth remained uncertain – with specific challenges pertaining to distribution and branding. Craft beer was still a relatively unknown concept in the city-state, and consumers remained sceptical of premium priced local beer. Moreover, big breweries in the Singapore market had already locked down most retailers with exclusive draft contracts. Challa reviewed his business model and growth strategy in terms of how and where he could sell his beer while continuing to build the Jungle Beer brand.

"Jungle Beer is about making beer you love, not merely tolerate"
- The Barefoot Brewing Company

It was November 2012 and Aditya Challa, entrepreneur and self-proclaimed beer aficionado, felt a mixture of pride and anxiety. He and his partners had started their own craft beer microbrewery: Barefoot Brewing Company Pte. Ltd. Their brand, Jungle Beer, was launched on the Singapore market 15 months earlier. The company had since then experienced strong growth and healthy operating margins. Challa had proven that he could brew a premium quality beer. However, as the end of the year was approaching, he and his partners began to question the sustainability of the company's growth – particularly since the business climate of 2012 was one of recession and concern.

The issue was not in the product itself, but rather in its distribution. Many of the retail outlets he could sell to were locked-down by exclusive draft contracts held by large brewers like Asia Pacific Breweries (APB). Convincing other retailers to carry the new Jungle Beer brand was also difficult. Jungle Beer had yet to build a well-known reputation. In addition, Barefoot Brewing Company did not have the resources to provide cash incentives for retailers to sell the product. Without the assurances of reputation and incentives, the retailers felt more at risk to poor inventory turnover. Furthermore, selling a unique premium product like craft beer to one retailer sometimes precluded being able to sell to another because of the innate competitiveness of the food and beverage industry.

Above all, there was the more daunting challenge of branding. Jungle Beer was a new brand and had the usual challenges of raising brand awareness. In Singapore, the difficulty of this task was compounded in two ways. One was the immature nature of the craft beer market and the other was the popular notion that imported products were of better quality than local products. Imported foreign beer was marketed at a premium price and enjoyed the reputation associated with bearing a foreign label. Retailers and customers who were not accustomed to craft brewing and the various styles of beer, simply did not understand why a locally brewed beer should be in the same premium price category as a foreign import.

All of these challenges were interrelated. Challa and his partners needed a realistic growth strategy that addressed the distribution needs of the Barefoot Brewing Company. This strategy had to simultaneously promote the new Jungle Beer brand and nurture the fledgling craft beer scene in Singapore. Customer demand for Jungle Beer, and craft beer in general, was key to selling Challa's beer to retailers. Paradoxically, generating customer interest in Jungle Beer required retail outlets for the beer to be available. What could he do?

This case was written by Professor Kapil Tuli and Christopher Dula at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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Starting up

Challa returned home to India after graduating in November 2007 with an MBA from the University of Hawaii. He knew he wanted to start a business and was mulling over several ideas before deciding to get into the business of craft beer (refer to Exhibit 1 for classifications of beer). He recalled,

The biggest thing that struck me was that I wasn't able to drink Indian beer anymore. After having lived in the UK and the US for a few years, I got back, and I just couldn't drink the beer. It was the same beer that I had been drinking all along, and I couldn't drink it anymore. I thought this was a huge market opportunity in India.

He had fallen in love with the complex tastes and qualities of craft beer, and India's lack of a craft beer scene presented an irresistible opportunity for his business venture. However, he did not want to hire a brewer and simply run the business end. Challa planned to be in the beer business for the long term, and this was a product he was passionate about – he wanted to be more involved.

Challa left India to study brewing in Scotland where he earned a post-graduate diploma in brewing and distilling in August 2008. After his studies, he also gained hands-on experience working in a Scottish microbrewery for five months. Following his graduation and the brief stint at the microbrewery, he returned to India as a full-fledged brewer. Thereafter he considered six states to start his own brewing business in, but after eight months he had not made much progress.

The difficulties were largely due to regulatory hurdles and ambiguities concerning expectations in relationships between government officials and business people. He found building a business case difficult because of the unknown costs in face of such ambiguity.

I was getting frustrated and getting nowhere. You know, I can't get my friends to invest in a business which I'm not sure about running; because of all these unknown costs.

In October 2009, Challa met a few of his old classmates for a business school reunion in Bali. Upon hearing his business woes in India, his friends suggested checking the Singapore market as a possible option. One of his friends had been living in Singapore for a year but was not sure if there was a market for craft beer; and despite being a consumer of craft beer, he was not very familiar with that business. They decided to research the Singapore market.

Challa made his first trip to Singapore one month later. He and his friend spent their first week meeting brewers and visiting microbreweries. They found that most of the breweries in Singapore were brewpubs and that there was a lot of camaraderie between the craft beer makers (refer to Exhibit 2 for definitions and classification of commercial breweries). Convinced that there was a market for craft beer, that weekend they contacted the government officials about setting up a business. Within hours of sending emails, they received responses stating that officials would be available to meet with them later that day or the next.

Shortly thereafter the Barefoot Brewing Company was founded – it was still November. Challa knew Singapore was pro-business, but the speed and efficiency of the government bureaucracy amazed him. He said,

This was quite a relief and a big change. So by the end of those two weeks we had already started the company, though we hadn't decided on what form the business would take.

Challa and his friends from the business school reunion decided to be partners in the brewing business. His friends would act as involved investors while Challa handled the brewing and business operations. The team, however, still needed to decide on the type of craft beer business to be in. Starting a brewpub seemed to be the best idea – almost all microbreweries in Singapore were brewpubs. However, they ultimately decided against it. Challa reported,

We thought about it quite a while, but neither me nor any of the other partners were keen on running the retail part of the business because, although they are vertically aligned – we sell to bars that then sell our beer… but they are still different businesses. Brewing beer is a different business than running a bar. None of us knew anything about running a bar, and we still don't know enough about the retail business.

The team next considered opening a nano-brewery that used an u-brew business model. This would be the simplest and easiest brewing business to start. An u-brew business sells the experience of personal brewing. In Singapore, individuals are permitted to brew up to 30 litres of beer per month as long as it is for free consumption.

[1] Average exchange rate in 2011 between SG$ and US$ at 1.28:1.
[2] Ibid. [3] Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011. p.10
[4] Average exchange rate in 2011 between SG$ and US$ at 1.28:1.

Under the u-brew model, customers could come to the nano-brewery to brew their own batches under Challa's guidance. In this manner, the business would avoid the requirements of obtaining any alcoholic beverage related licensing. It was also an inexpensive small-scale operation that would not need much space.

The only thing they had to do was provide their customers with the raw materials, equipment, and related services. It was a fun idea, but did not leave much room for growth.

Serious consideration was given to each idea in turn, and it took a couple of months for the partners to finally decide as to which type of brewing business they would start. In the end, they chose to open a microbrewery focussing only on the production, not the retail of beer. They wanted something that provided room for growth, and would be worthwhile, given the time and money that was going into the venture. Next, they had to decide on a suitable location in Singapore, and determine if it was better to rent or own a space.

We were thinking of renting, but the more we found out how the rental markets were – the more we found out how rental works, we found that landlords usually… well they'll usually sign a two year lease at a fixed rent, but they could up it to anything after that. In the brewing business, a lot of the costs are the setup costs; it's not just the equipment costs. We knew we'd be stuck if somebody wanted us to move, or threatened us with a 30 percent extra rent or whatever. So we decided to buy the factory, we own this place.

Two of Challa's partners were experienced in real estate and had a sound understanding of property markets. This enabled them to determine the best option for the young enterprise. However, the decision to buy their own space would mean delaying the launch of the business till they raised the extra capital needed for a down payment. Fortunately, the partners were successful in financing the venture internally. In January 2011 they purchased the property for nearly S$1,000,000 (US$782,000) and were ready to start with the equipment purchases and setup.[1]

Their equipment purchase was a paragon of the contemporary global supply chain. The company they purchased from was based out of San Diego, California in the United States, and was responsible for designing the equipment and fitting out the complex controls, valves, and piping. Whereas the components, such as the stainless steel brewing vats, were produced in China. Engineers from the company in San Diego then assembled the complete setup on site at the brewery with local Singaporean technicians.

This setup strategy was done at a lower cost than equipment setups used by brewpubs. This was primarily because brewpubs had to consider aesthetics, and preferred to order more expensive artisan looking copper tanks made in Europe. As a production microbrewery, Challa considered function over form, and was therefore able to experience lower setup costs than a typical brewpub. Nonetheless, it was a significant investment that cost S$350,000 (US$274,000) for the equipment and S$150,000 (US$ 117,000) for the setup.[2]

The brewery was fully equipped by April 2011, but considerable paperwork and inspections were still needed before the necessary licenses and certifications could be granted. Several months passed, and on July 1, 2011, the Barefoot Brewing Company was ready to start brewing and selling beer (refer to Exhibit 3 for Jungle Beer logo and Exhibit 4 for types of Jungle Beer). In August the business sold its first beer, and for the first 15 months of operations, had experienced a 20 percent growth in sales volume per month. Regardless, Challa cautioned,

It's [sale growth] from a really low base… we still do a lower volume than most of the other brewpubs, who have their own outlets and dedicated space.

The brew-scape

Alcohol regulation in Singapore

Alcoholic beverages were heavily regulated in many countries. An especially noticeable aspect of Singapore's regulation was the high taxes placed on alcoholic beverages (refer to Exhibit 5 for taxation and duty levies on alcoholic drinks). Domestically produced beer faced a S$48 (US$37.50) per litre of pure alcohol excise duty, meaning that a 5.0 percent alcohol by volume (ABV) beer would have a S$2.40 (US$1.88) per litre excise duty. Imported beer had the same pure alcohol excise duty and an additional S$16 (US$12.50) per litre of pure alcohol customs duty.[3, 4]

[5] MarketLine, Company Profile: Asia Pacific Breweries Limited. 31 May 2012. p. 18.
[6] Asia Pacific Brewery, Company Website, http://www.apb.com.sg/corporate-profile.html, accessed November 2012.
[7] Carlsberg Group, Company Website,. http://www.carlsberggroup.com/Pages/default.aspx, accessed November 2012. [8] Datamonitor. Industry Profile: Beer in Singapore. Dec. 2011. p. 18 & 19. 9 Ibid. 10 Ibid.

The government of Singapore also maintained strict controls on advertising alcoholic beverages. The Asia Pacific Brewery (APB), maker of Tiger Beer, had found such stringent rules a limitation to their branding and promotional strategy.[5] Instead they had to rely on the bottom-up process of organically building brand recognition, which took time. APB, which had been in the brewing business since 1931, had plenty of time to establish its reputation.[6] APB's main competitor, Carlsberg, began sending samples to Singapore in 1869 and overtime had become highly recognised as one of the few options for beer that was available.[7] The historic presence of these companies had no doubt affected local tastes and preferences and helped form local perceptions of what a beer was supposed to taste like.

Bargaining power

Established brewers like APB faced narrow operating margins and relied on economies of scale to remain profitable (refer to Exhibit 6 for selling margin of a typical beer brand).[8] The brewing business was capital intensive and dependent on vast distribution networks where large wholesalers and retailers with significant buying power negotiated for even lower prices.[9] To remain cost competitive, the brewers had to source for raw ingredients at low prices, which involved setting up long-term contracts with suppliers; this had a knock on effect of limiting their flexibility.[10] These high barriers to entry meant that large brewers typically did not worry about the threat of newcomers, but instead competed fiercely with each other in capturing market share – this often involved setting up exclusive draft contracts or other agreements with small retailers like bars, clubs, and restaurants to exclusively carry their products or incentivise the sales of their products.

As a microbrewer, Challa was able to extract much higher operating margins than mass-market beer by selling premium craft beer that appealed to more sophisticated consumers (refer to Exhibit 7 for Singapore beer market segmentation by value). According to Challa,

Our goal is to be the premier craft beer from Asia… period. We're consciously not making any of the widely available styles, for instance, a regular wheat beer or lager… It's pointless to try and differentiate enough in those segments to be able to sell at a premium.

Entry barriers into the craft beer market were seemingly low. Initial capital investment for a microbrewery was manageable and the premium margins of craft beer were attractive. However, the small size of the Barefoot Brewing Company and low product recognition associated with its newcomer status meant that Challa did not have much bargaining power over buyers, as opposed to brewpubs, which benefited from captive consumers. This was further complicated by having to survive in the fledgling craft beer market. The challenge for Challa was not making the beer; it was finding where to sell it, and how.

The competition

In 2012 there were 10 breweries in Singapore, including The Barefoot Brewing Company, which was one of two microbreweries that was not a brewpub (refer to Exhibit 8 for number of breweries in Singapore). Jungle Beer, however, was special because it was the only true craft beer not produced in a brewpub. This gave it a couple of distinct advantages. For example, brewpubs competed for many of the same customers – discerning craft beer aficionados, sophisticated drinkers and trendsetters. Brewpubs were some of the best channels for selling craft beer to such target customers. At the same time, brewpubs also had fewer channels than a production microbrewery for selling craft beer. To elaborate, a brewpub or bar would not want to risk selling another brewpub beer in their establishment because it would introduce an unnecessary risk of losing customers. Suppose a customer was introduced to a beer from The Pump Room while they were at Brewerkz.[11] If they enjoyed that beer they might start frequenting The Pump Room, which was just across the river, instead of Brewerkz.

The fact that Barefoot Brewery was not a brewpub meant that Jungle Beer could be proposed as an alternative without the risk of customer attrition. This potentially made Jungle Beer attractive to brewpubs and bars looking to expand their brand portfolio. This was beneficial because craft beer drinkers typically enjoyed a wide and diverse selection of beers. In this sense, brewpubs were ostensibly both competitors and a point of sales. In addition, unlike many of its competitors, Jungle Beer did not require exclusive draft contracts from its retailers. Challa expressed another advantage of Jungle Beer not being a brewpub was,

Typically, a brewpub's capacity is mostly tied up in making more ordinary beers to keep the volumes of the pub going, whereas we're not constrained by that, we can make the more special beers without having to worry about making a lager or whatever else.

[11] The Pump Room and Brewerkz were two brewpubs in Singapore located at Clarke Quay in 2012.

To this end, Barefoot Brewing Company could offer customised boutique beers catered to specific restaurants interested in carrying Jungle Beer. Challa had already made two unique customised beers for two restaurants in Singapore, and was hoping to make more unique style beers in future.

Before the end of 2012, he planned to launch another interesting niche product: a low-alcohol craft beer brewed with acai berries. The idea was that this would appeal to certain tastes and preferences that were not already provided for by the market.

Archipelago was the other non-brewpub microbrewery in Singapore. By definition, it was not a true craft beer maker because it was owned by a large brewing company, APB.[12] Nonetheless, Archipelago was a good craft beer in all other respects. As a subsidiary of a large brewer, it had the clout required to demand exclusive draft contracts with retailers.

Exclusive draft contracts with bars allowed a brewer to avoid bottling costs. However, relying on exclusive draft contracts may also limit opportunities for growth – that is, a commitment to contracts may reduce flexibility. Challa said,

I think this is where we've got to play to our strengths, which has a lot to do with flexibility and being able to change brands quickly – I could make a new beer tomorrow… or today…

As a startup, flexibility was an important aspect of Barefoot Brewing. It enabled rapid growth by being able to move quickly and change directions as need be. In fact, Jungle Beer had already exported beer to two other countries in its first year, Malaysia and New Zealand. There were also plans for Jungle Beer to eventually be sold in China and Thailand. Still, the challenge continued to be a matter of distribution. Challa needed to convince retailers that Jungle Beer was a product that would sell.

Bottles and kegs

Channeling the brew

For the first six months of operations, Jungle Beer was distributed in kegs only, meaning that it was only available on draft. It was not until early 2012 that bottled distribution began, but still most volume was sold in kegs. However, distribution in bottles had increased in terms of the number of bars willing to sell Jungle Beer. This was because exclusive draft contracts were prevalent throughout Singapore. These contracts would incentivise bars to meet target volumes of a big brewing company's beer. By offering Jungle Beer in bottles, Challa was able to get around the draft contracts in bars. Even when bars did agree to carry Jungle Beer, some were less concerned with Jungle Beer sales as it might compete with the attractively incentivised draft beer contract volumes. For instance, Challa said,

If they're making 50 to 80 percent margin on the big brewing companies' beers, they would want a 200 percent on ours because… they want to have it on the menu to be cool, but they don't really want to promote it.

Nonetheless, the large number of on-trade retailers, like bars, clubs, and restaurants, gave ample opportunities for growth. In Singapore, these channels numbered over a thousand (refer to Exhibit 9 for the number of trade establishments in Singapore serving alcoholic drinks by type). There were even craft beer bars operating in Singapore that offered as many as 50 to 70 beers. These bars would be receptive to a locally produced craft beer, but it would also be difficult to achieve high sales volumes from these establishments because of the large variety of beer on offer.

Another aspect of bottled distribution was branding. Draft beers were poured into glass mugs that might not have a label on the glass to signal which type of beer was being consumed. Worse still, labeled glass mugs did not necessarily match up with the type of beer it contained. Bottles had the advantage of having clear and accurate labels that signaled the types of beer consumed. This was very important for building brand recognition.

Distribution in bottles also opened the door for export and boutique bottle shops specialising in premium beers, some of which offered home delivery service (refer to Exhibit 10 for off-trade percent sales of beer in Singapore by distribution format). Although grocery stores were still the largest off-trade retailer of beer, Challa had decided against distributing through this channel (refer to Exhibit 11 & 12 for sales of alcoholic drinks by category by on-trade versus off-trade split and off-trade mark-ups for beer, wine, and spirits in Singapore):

Grocery stores are really tough. We do sell at a few bottle shops, we sell at three of them, but the minute we're in a super-market then a lot of our core customer base, which is a craft beer bar, are not interested to have our beer anymore, because a super-market can do a 20 percent markup, but these guys need to do a 100 to 150 percent markup to survive and pay

[12] Brewers Association, Craft Brewer Defined,Retrieved from: http://www.brewersassociation.org/pages/business-tools/craft-brewing-statistics/craft-brewer-defined, accessed November 2012.

their rent. The minute we're in a supermarket, we're going to lose the bulk of our core customers – our existing customers.

By October 2012, The Barefoot Brewing Company was utilising 4,000 to 5,000 of its 15,000 litres per month capacity to produce Jungle Beer, leaving plenty of room for growth without having to invest in additional production capacity. Jungle Beer focused more on value utilisation as opposed to volume utilisation. This value utilisation strategy meant that Jungle Beer had to be sold at a premium due to the higher marginal costs of ingredients and labour experienced by small-scale brewers.

Selling 'Singapore' to Singapore

Points of sale

Imported draft and bottled beer in Singapore was sold at a premium, typically 30 to 40 percent above the retail price for local beers. This was partially because imported beer had to pay excise and customs duties, as well as transportation costs, and also because of perception. Singaporean consumers readily identified foreign imports as being synonymous with premium quality (refer to Exhibit 13 for market shares of beer sales by companies selling in Singapore).

Many countries throughout Asia, with perhaps the exception of Japan, perceived imported products, particularly from the west, as being of higher quality. It was a problem of perception, in which Challa believed,

Everyone in Asia is dealing with this. Anyone making a quality product needing to charge a premium is surely dealing with it. It's not even unique to beer.

As a case in point, Challa described a sales meeting with a buyer,

[The buyer asked], 'why does the bottle say it's made in Singapore?' I mean, we're made in Singapore! It's just bizarre. Most people don't know that anything good is made here. It's just going to take time.

Another challenge was convincing retailers to sell Jungle Beer in their bars at a premium price. The perception was that because Jungle Beer was local, bar owners questioned why customers would be willing to pay a premium price for it. As Challa put it,

If your beer is local, why is it more expensive than the most popular local beer?

Premium imported beer sold at a 30 to 40 percent more expensive than what Singaporeans usually paid for local beer. Convincing bars to sell anything else was a challenge. However, making cold-calls to bars to persuade them to sell Jungle Beer was not very viable. It was time consuming, but more importantly, these retailers simply did not understand what craft beer was all about. This was a challenge to all players in the craft beer market. To this point, even when a customer bought a craft beer from a competitor, such as one of the other local craft breweries, it was still beneficial to Jungle Beer because it would raise awareness of craft beer in general.

Tastes and preferences

Craft beer was making headlines in lifestyle trends in Singapore. In October 2012, The Straits Times featured the first ever craft beer festival in the weekend Life! section of the newspaper, and Jungle Beer was promoted as a local brand of craft beer.[13] It seemed Barefoot Brewing Company had become part of a craft beer zeitgeist among trend-setting Singaporeans. Steadily increasing incomes also meant that Singaporeans were more receptive to social drinking in more expensive on-trade establishments.[14] Strong tourism in Singapore meant that many on and off-trade establishments were catering to foreign tastes as well.[15] Challa was convinced these trendsetters would be the market drivers,

It's more the young, trendy, well-networked people who are reading about craft beer, and then trying it out…

Herein lay the paradox; a lot of the buzz surrounding craft beer occurred at the point of sale. It was at the bars, pubs, and restaurants that enthusiasm for the product was generated. These places were critical to building Jungle Beer's brand reputation, but Jungle Beer needed to have a brand reputation to get into these channels.

The next batch

Jungle Beer seemed well poised to be at the forefront of an emerging trend, but was this trend sustainable? On the topic of craft beer becoming a fad in Singapore, Challa grinned:

I've never met one person who used to drink craft beer and now only drinks lager.

[13] Lydia Vasko,"Be Hip to the Hops," The Straits Times, October 19, 2012, Sec. C6.
[14] Ibid. [15] Ibid.

Craft beer was in fact gaining traction in Singapore, which boasted more microbreweries than any other city in Asia. However, relative to Singapore's size, this was less impressive – smaller cities elsewhere, such as San Diego in the United States, had three to four times as many microbreweries as Singapore did. In this sense, the craft beer market in Singapore was still in its infancy, but this also presented opportunities for growth (refer to Exhibit 14 & 15 for Sales of alcoholic drinks and beer sales forecasts in Singapore).

Challa knew that word-of-mouth and reputation were key to branding in this environment. He entered Jungle Beer in competition and won awards against local and international breweries. He had consistently organised events that featured Jungle Beer, maintained a regularly updated website, and pursued an active social media presence. Jungle Beer had also been mentioned numerous times in several different news publications since its inception. He had even met with the tourism board to discuss what work could be done to make people more aware of the growing craft beer scene in Singapore.

Challa had already taken Jungle Beer a long way – from a desire to drink craft beer in India to a fast growing business in Singapore in the span of three years. He could make good beer – that much was certain, but with the Barefoot Brewing Company at one-third capacity he needed a strategy that would keep him on the path towards continued growth.
He needed to increase the demand for Jungle Beer by crafting a strategy that reconciled branding and distribution through hesitant channels.

EXHIBIT 1:
CLASSIFICATIONS OF DIFFERENT TYPES OF BEER

The difference between craft beer and normal beer (beer produced by large or big breweries) Craft beer was produced by small independent breweries, which had to be less than 25 percent owned by a big or large brewing company.[16] They also tended to develop new styles of beer that may be innovative and create unique tastes while using natural ingredients.[17]

Types of beer: Beer can be classified into three basic categories: Ales, Lagers, and Stouts. There are many sub-types of beer within these categories.[18]

Ale: Ales use top fermenting yeast that had a warmer fermenting process than the bottom fermenting yeast. This difference resulted in a beer that had a distinct taste that combined fruitful, floral, aromatic, acidic, and bitter characteristics.[19]

Lager: The colder fermenting process of lagers required a longer fermentation time that gave the beer a smooth and light taste. It was usually more carbonated than ale, which also gave it a crisp refreshing characteristic – this is the most widely consumed beer in the world.[20]

Stout: Stouts also used a top fermenting process, and have a rich creamy taste with a distinct black colour.[21]

EXHIBIT 2:
COMMERCIAL BREWERY CLASSIFICATION

Classification	Capacity
Large or Big Brewery	More than 6,000,000 barrels produced annually
Regional Brewery	Between 15,000 barrels to 6,000,000 barrels produced annually
Production Micro-Brewery	Less than 15,000 barrels produced annually with 75 percent sold off site
Brewpub Micro-Brewery	A restaurant – brewery that sells at least 25 percent of its beer on site
Nano-Brewery	These are very small brewing facilities that often rent their capacity for non-commercial brewing purposes

Note: 1 Barrel = 1.17 hectolitres or 117 litres

Source: The Brewers Association. Retrieved from: http://www.brewersassociation.org/pages/business-tools/craft-brewing-statistics/market-segments, accessed November 2012.

EXHIBIT 3:
JUNGLE BEER LOGO

Source: Barefoot Brewing Company website: http://www.junglebeer.com, accessed November 2012.

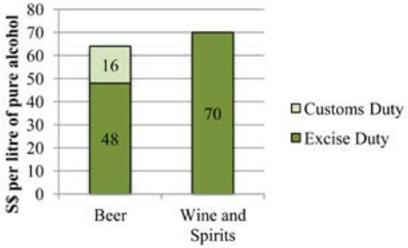
[16] Brewers Association. Craft Brewer Defined. Retrieved from: http://www.brewersassociation.org/pages/business-tools/craft-brewing-statistics/craft-brewer-defined
[17] Ibid. [18] The Beer Store. Beer Types and Sub-Types. Beer 101. Retrieved from: http://www.thebeerstore.ca/beer-101/beer-types [19] Ibid. [20] Ibid. [21] Ibid.

EXHIBIT 4:
TYPES OF JUNGLE BEER

Name of Beer
Tropical Wheat – Mango
Tropical Wheat - Mango & Orange
Tropical Wheat – Pink Guava and Soursop
Kiasu Stout
American Pale Ale (IPA)
Porter
Pale Ale (English)
Cerveza Habanero
Lah Belique (Belgian Ale)

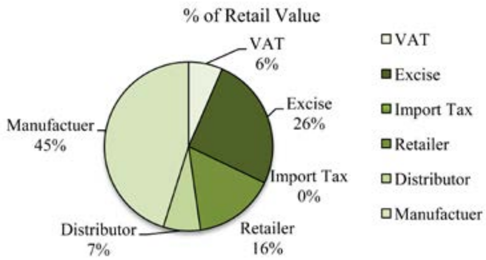
Source: Barefoot Brewery Company Website. Retrieved from: http://www.junglebeer.com/our-beers/?&offset=0, accessed November 2012.

EXHIBIT 5:
TAXATION AND DUTY LEVIES ON ALCOHOLIC DRINKS IN SINGAPORE, 2011



Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

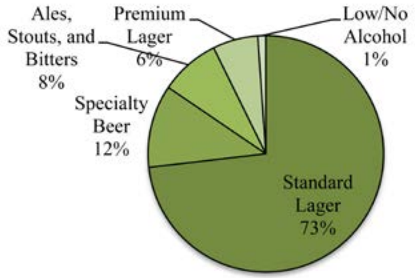
EXHIBIT 6:
SELLING MARGIN FOR A TYPICAL BEER BRAND (TIGER BEER) IN SINGAPORE, 2011



Note: Based on Tiger, S$3.04, 323ml at supermarkets/hypermarkets and five percent ABV
Excise includes any other tax as relevant

Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

EXHIBIT 7:
SINGAPORE BEER MARKET SEGMENTATION BY VALUE, 2010



Note: A premium lager is S$9 (US$7.04) or more per litre, with below S$9 consisting of standard lagers. Specialty beers, ales, stouts, and bitters are likely to be imported premium beers from overseas big or large breweries. Assume an average retail price of S12 (US$9.40) per 500mL for Jungle Beer.

Source: Datamonitor. Industry Profile: Beer in Singapore. Dec. 2011.

EXHIBIT 8:
NUMBER OF BREWERIES IN SINGAPORE, 2005-2010

	2005	2006	2007	2008	2009	2010
Brewery	1	1	1	1	1	1
MicroBreweries	2	3	6	6	7	8
Total	3	4	7	7	8	9

Note: By 2012 there would be 10 breweries in Singapore because Barefoot Brewing Company would not have existed in 2010

Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

EXHIBIT 9:
THE NUMBER OF TRADE ESTABLISHMENTS IN SINGAPORE SERVING ALCOHOLIC DRINKS BY TYPE FROM 2006-2010

	2006	2007	2008	2009	2010
Bars/Pubs	115	151	154	166	176
Cafes	892	901	923	937	963
Full-Service Restaurants	1,356	1,410	1,459	1,499	1,584
Fast Food	1,128	1,151	1,195	1,267	1,371

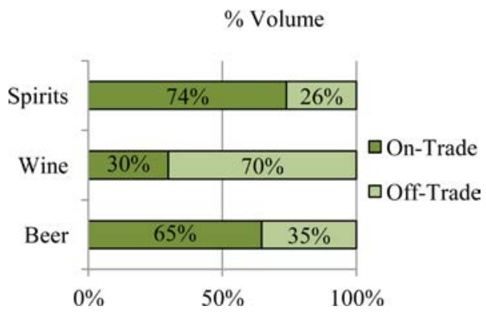
Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

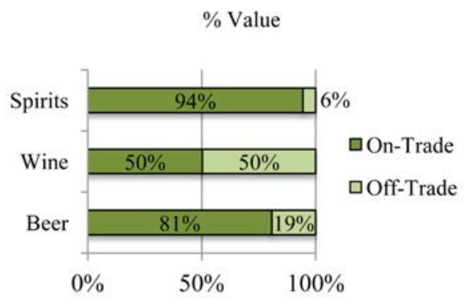
EXHIBIT 10:
OFF-TRADE SALES OF BEER IN SINGAPORE BY DISTRIBUTION FORMAT, 2011

Distribution Format	% Off-Trade
Store-Based Retailing	99.0
Grocery Retailers	99.0
Discounters	0.0
Food/Drink/Tobacco Specialists	3.0
Hypermarkets	11.7
Small Grocery Retailers	22.2
Convenience Stores	11.0
Forecourt Retailers	2.2
Independent Small Grocers	9.0
Supermarkets	62.1
Other Grocery Retailers	0.0
Non-Grocery Retailers	0.0
Non-Store Retailing	0.0
Direct Selling	0.0
Home-shopping	0.0
Internet Retailing	1.0
Vending	0.0

Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

EXHIBIT 11:
SALES OF ALCOHOLIC DRINKS BY CATEGORY BY ON-TRADE VERSUS OFF-TRADE SPLIT

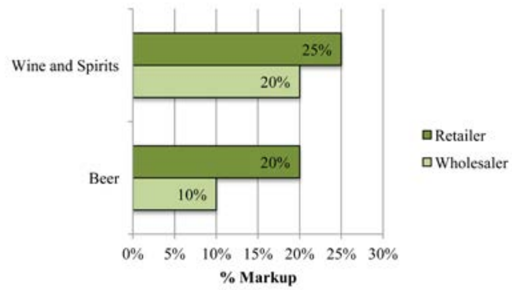




Note: Alcoholic beverages sold in clubs, bars, pubs, and restaurants are considered on-trade. Off-trade is sold without a license for home consumption through outlets such as supermarkets and convenience stores.

Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

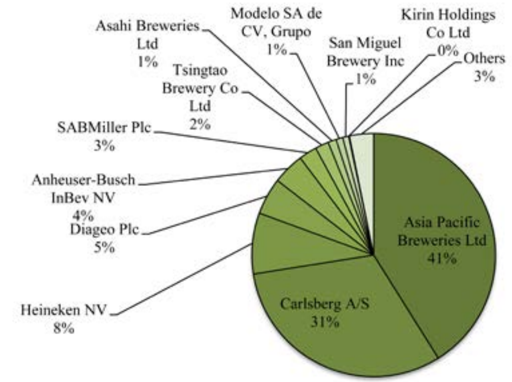
EXHIBIT 12:
TYPICAL WHOLESALER AND RETAILER OFF-TRADE MARK-UPS FOR BEER, WINE AND SPIRITS IN SINGAPORE, 2011



Note: A wholesaler buys large quantities of a good, warehouses these goods, then resells them to a retailer at a higher price

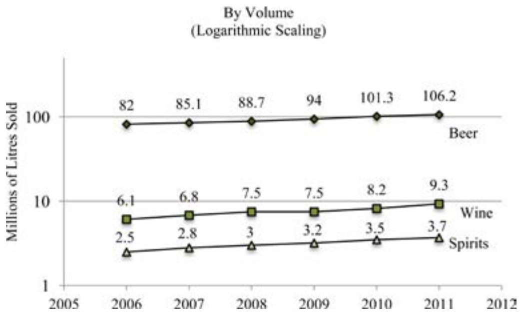
Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

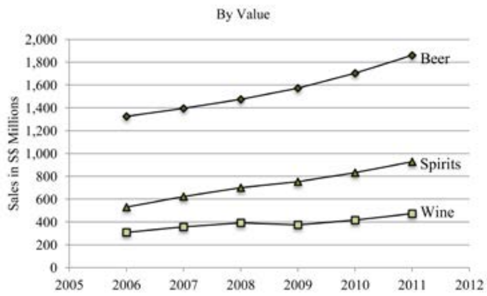
EXHIBIT 13:
COMPANY SHARES OF BEER SALES BY VOLUME IN SINGAPORE, 2011



Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

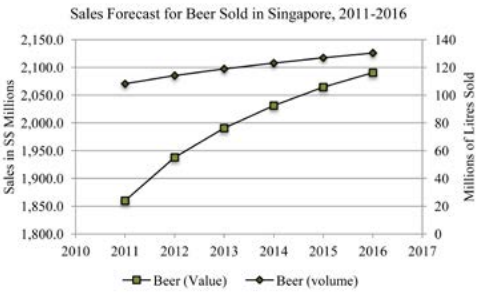
EXHIBIT 14:
SALES OF ALCOHOLIC DRINKS IN SINGAPORE, 2006-2011

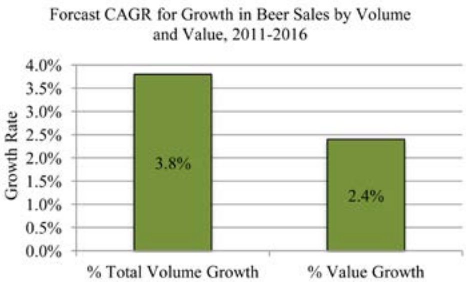




Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

EXHIBIT 15:
BEER SALES FORECAST IN SINGAPORE, 2006-2011





Source: Passport. Alcoholic Drinks in Singapore. Euromonitor International. December 2011.

GILLETTE'S "SHAVE INDIA MOVEMENT": RAZOR SHARP AGAINST THE STUBBLE (A)

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Abstract

Case A begins in April 2010, where Sharat Verma, the Brand Manager for Gillette India, reflects on the solutions that were developed to overcome stagnant growth in their men's grooming segment – specifically Mach3 razors. The product was unsuitably priced to the market and suffered from poor availability. Faced with this problem, he worked with Harish Narayanan, the assistant brand manager in the Singapore Regional Business Unit, and together they influenced a research and development effort that focused on frugal innovation, wherein they succeeded in removing non-essential features of the Gillette razor design in order to reduce costs, thereby aligning the value proposition and price-point to the target segment. In addition, Verma and Narayanan helped work to develop an unconventional marketing campaign, called the "Shave India Movement", which catalysed the previously unresponsive yet more affluent urban market, which resulted in record breaking sales for the Mach3 razor in 2010.

Verma and Narayanan are then left to analyse the mechanics underlying the success of this campaign, and determine if the Movement can be further expanded. They must also determine if lessons from the campaign can be applied elsewhere, and if so, how?

The situation was that Indian men were shaving just once a week. The perception was that the stubble looks cool and desirable to women! Just doing an ad was not the solution. The brand needed to ensure a nationwide public sentiment and response to change this situation.

- Pritha Mitra Dasgupta, journalist[1]

It was April 2010 and Sharat Verma, the brand manager for Gillette India, was reviewing the latest report for the third year of the "Shave India Movement". The movement was a remarkable marketing campaign that boosted the company's Mach3 razor sales by 500 percent. It was a particularly impressive accomplishment given that the men's shaving category in India had been stubbornly unresponsive.

The movement began in 2008, prior to which, Verma had been concerned over Mach3's poor customer adoption rates in India. This was quite uncharacteristic in comparison to other markets, and all the more frustrating given the immense potential for growth that India represented. Nevertheless, sales languished for Gillette's flagship product but many still doubted if the company would ever grow their razor category beyond 20 percent market share.

The Mach3 had a reputation for quickly capturing market share in almost all geographies. Verma said,

Gillette has market leadership in almost all markets in the world except Japan. We have 70 percent or more market share in Australia, the United States and Western Europe. That is unheard of in any other category.

In late 2007, Verma wondered what it would take for a significant impact to be made on the Indian market. Traditional marketing methods had so far yielded less than average results. Conversations with colleagues around the globe further confirmed his thoughts: Gillette India would have to develop innovative tactics to raise awareness and increase adoption. He recollected,

We have a great product that we want more people to experience. We want to make it more available and better known – and to give them a reason to buy it.

What emerged was the "Shave India Movement": a ground breaking viral campaign that went mainstream in 2009. It targeted upper-middle class urban men who had the discretionary spending necessary for using the relatively expensive Mach3 blade. By all accounts it was a great success, but even after the movement's third year, Verma knew that much more had to be done. He flipped through the report. He would start by analysing the campaign, learn from it and apply those lessons to the next step... but what was that step, and how would it further grow Gillette's presence in India?

This case was written by Professor Srinivas Reddy and Christopher Dula at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

Version: 2013-04-24

[1] Pritha Mitra Dasgupta, "Razor Sharp," The Financial Express, June 29, 2010, http://www.financialexpress.com/news/razor-sharp/639541, accessed April 2013.

Procter & Gamble

Procter & Gamble (P&G) was founded in 1837 and was headquartered in Cincinnati, Ohio. In 2010, P&G was a publicly traded Fortune 500 company and was the largest global consumer packaged goods company operating in the world. P&G's mission was to provide branded products and services of superior quality and value that would improve the lives of the world's consumers now and for generations to come. The group's business was segmented into two key Global Business Units: Beauty and Grooming, and Household Care.

P&G's top 50 brands were amongst the world's best-known household names and accounted for 90 percent of P&G sales and more than 90 percent of its profits. Twenty-four of their top Leadership Brands generated more than US$1 billion in annual sales. Four billion times a day, P&G brands touched the lives of people around the world. Consistently ranked as one of the world's top advertisers, the group invested over US$8 billion in marketing and advertising in 2010. Some of P&G's largest and most trusted brands included Pampers, Tide, Ariel, Always, Pantene, Bounty, Pringles, Charmin, Downy, Iams, Crest and Olay.[2]

The Gillette brand

The Gillette Company was acquired in 2005 by P&G for US$57 billion.[3] The markets viewed the merger favourably as both companies shared a dedicated focus on product innovation and an ability to build strong brands. Following the merger, Gillette continued to be headquartered out of Boston, Massachusetts and employed 129,000 people worldwide working under the brand.[4] The brand had a history of personal care and grooming products that spanned over a century, with a name that was synonymous with innovative products and quality. This was especially true of Gillette razors.

Gillette razor brand products, which consisted of male personal care products, male blades and razors like the Mach3, were housed within the Beauty and Grooming business unit at P&G. Grooming, which housed billion dollar brands like the Mach3, accounted for 13 percent of net earnings for the entire P&G group in 2010.[5]

Gillette's history

As the story goes, one summer morning in 1895, a travelling salesman by the name of King Gillette was practicing his daily grooming ritual. He became irritated when he found that the edge of his straight razor had become dull and unusable. He later claimed that this was the moment he had an inspirational vision of creating a new kind of razor. He imagined an inexpensive, double-edged blade that could be clamped over a handle and used until it was dull. It could then be discarded and replaced by a new disposable blade.

Another safety razor, the Star, already existed on the market, however its blade needed sharpening following each use and eventually required professional honing. Gillette was determined to find a better, more profitable product with enhanced usability. He spent the next six years perfecting his idea and consulted numerous scientists and toolmakers. Most of them tried to discourage him by telling him that his product idea was impractical and impossible to produce. However, the 40-year old Gillette was a proven salesman, inventor and writer, and had a tenacious will to keep pursuing his vision.

In 1901, he partnered with William Nickerson, a Massachusetts Institute of Technology-educated machinist. Nickerson developed the production processes and Gillette formed the American Safety Razor Company after raising US$5,000 to be used for manufacturing the razor. Production, advertising and sales of the razor began in 1903. In its first year, the company sold 51 razor sets and 168 blades. In 1904, Gillette received a patent on the safety razor and sales rose to 90,884 razors and 123,648 blades.

By 1906, the company had paid its first cash dividend. In the years before World War I, Gillette steadily increased earnings through print advertisements, emphasising that with his razor, men could shave themselves under any condition with fewer cuts or irritation.[6] During World War I, millions of blades and razors were sent to American soldiers. To reach even more consumers, Gillette developed a lower priced razor and developed a razor designed for women. After the war, Gillette advertised to millions more with its Blue Blades Campaigns, sponsorship of the World Series, and the Gillette Cavalcade of Sports. By the 1950s, people were asking for a more comfortable close shave, and Gillette responded by creating more products. Verma acknowledged, "When it comes to marketing campaigns, well… Gillette pretty much wrote the book on it."

[2] P&G Corporate Newsroom, "About P&G," http://news.pg.com/about, accessed April 2013.
[3] Chris Isidore. P&G to buy Gillette for $57B. CNN Money. 28 January 2005. Retrieved from: http://money.cnn.com/2005/01/28/news/fortune500/pg_gillette/, accessed April 2013.
[4] Proctor & Gamble Company Annual Report, June 30, 2012, SEC Filing, Form 10-K, http://www.sec.gov/Archives/edgar/data/80424/000008042412000063/fy2012financialstatementsf.htm, accessed April 2013.
[5] P&G, 2010 Annual Report, http://www.pg.com/annualreport2010/index.shtml , accessed April 2013.

Research and innovation

Developing a razor was not a simple task and required years of dedicated research and development. New razor systems were typically launched at five-year intervals.[7] Highly skilled engineers and product teams worked continuously on design, feature and material improvements – going through numerous iterations before a product was launched. By 2010, over US$750 million on research and development was dedicated to producing the Gillette Mach3 razor alone.[8] The complexity of the product was such that the amount of welding required by the Mach3 rivalled that of products from the automotive industry. Verma added:

We have fantastic technology. People think we just keep adding blades. In reality, we have a simple rule of thumb: if a product doesn't do much better than the previous one, we don't launch it. There is a lot of science behind it. For example, the reason for three blades was that, instead of individual blades contacting the skin, it spreads the skin by becoming a surface that shaves; hence giving you more comfort. The Mach3 product had 30 plus patents. Imagine that in a small razor. I call it the best piece of technology you can have in your hand for under US$10.

The Mach3 was considered a premium product. It combined Gillette's Three Blade Shaving Technology with anti-friction blades on a pivoting razor head that used a lubricating strip and 10 micro-fins that gently guided hair to the blade for a smooth shave. It was, as the company deemed, a high performance, close, yet comfortable shave.

Gillette India Limited

Gillette India Limited was initially incorporated as Indian Shaving Products Limited in 1985. Although it retained its separate legal status, it became part of P&G when P&G acquired Gillette in 2005. By 2008, Gillette India was maintaining a stagnant 32 percent market share in the men's grooming category, with only 20 percent in the razor sub-category. This was a pretty lacklustre state of affairs considering Gillette's past successes in other markets. Nonetheless, the company was focused on serving the emerging consumer market with historically innovative product offerings.

In 2010, Gillette India's revenue from grooming products rose to US$132 million from US$100 million in 2007. This was a significant increase in growth relative to the overall growth in India's shaving market – a change attributable to the company's ability to innovate and run an effective marketing campaign, that is the "Shave India Movement". However, these numbers were still small in respect to the entire size and potential of the India market (refer to Exhibits 1, 2, 3, 4 & 5 for retail sales in India, company market and brand shares for the men's grooming category, and Gillette's razor sales in India).

India

In 1991, the Indian government added 846 million consumers to the global economy by opening its markets to the world.[9] Since then, foreign businesses had long been enticed by the country's enormous market potential.

However, most companies that entered India failed to break even. This illustrious list included: Coke, Kellogg's, Seagram, Reebok, Mercedes Benz, Booze Allen Hamilton, and many more from all sectors of industry.[10] India, though, remained un-phased in spite of the rocky experiences of such suitor companies.

By 2006, India was the world's fourth largest economy (in terms of purchasing power parity) and continued to undergo impressive growth.[11] Its population, already at over a billion, was also young; 40 percent were under the age of 21.[12] India was also very poor – its per capita income ranked 166 out of the 193 countries recognised by the UN.[13] However, the country's development was promising and quite lucrative from a marketing perspective.

India's continued population growth was projected to increase at an annual rate of 1.6 percent, an amount equivalent to the size of Australia's population each year.[14] Moreover, India was not as poor as it used to be, the population's conditions were improving steadily. A national survey found that from 1991 to 2004, the percentage of people below the poverty line decreased from 36 to 22 percent.[15] Per capita income increased from US$120 to US$700 during that same time and there were no indications that this upward trajectory would abate.[16] Projections up to 2015 put India at the same per capita income level that China had in 2005.[17]

[6] Funding Universe, The Gillette Company History, downloaded from: http://www.fundinguniverse.com/company-histories/The-Gillette-Company-Company-History.html, accessed April 2013.
[7] P&G, Gillette Newsroom, http://news.gillette.com/about/timeline, accessed Dec. 2012.
[8] Naomi Aoki, "The War of the Razors: Gillette-Schick fight over patent shows the cutthroat world of consumer products," The Boston Globe, August 31, 2003, http://www.boston.com/business/globe/articles/2003/08/31/the_war_of_the_razors/, accessed April 2013.

Market complexities

Gillette had fared better than most other global companies that entered India, but was by no means an exemplar when compared to its own standards in other markets. There was a common thread running through the strategic difficulties that just about all foreign companies discovered when they entered India: complexity.

India was not a single market, but rather a patchwork of many markets consisting of a plethora of affluence levels, geographies, and identities all subtly connected yet separated through numerous languages, cultures and traditions that spanned centuries. The consumption ideologies were a sophisticated blend of these factors. This presented itself as a confusing mix of contradictions that made it extremely difficult for global companies to plan a coherent strategy. Only one thing was certain - the growing aspirations of the Indian consumer.

Most Indians were constrained by tight, limited budgets but simultaneously empowered by greater consumer confidence. In the decade leading up to 2008, consumers benefitted from spectacular economic growth, access to cheap credit and the availability of more and more affordable products, all of which outpaced growth in their income.[18] Consumers were eager to spend, but were extremely discerning on what they would spend their money on.[19]

It became common practice for a person to purchase a consumer durable on debt, and then pay off that debt over time by the savings gained from switching to a lower end fast-moving-consumer-good from what they normally used.[20] The choice essentially became, 'should I buy a washing machine and downgrade to cheaper shampoo, or use an expensive shampoo and forgo the washing machine'. This increased comfort for borrowing was fuelled by a feeling that tomorrow would be better than today.

According to Rama Bijapurkar, an expert on market strategy and consumer behaviour in India, the principal reason why most global companies failed to penetrate the Indian market was because they did not understand the market. These companies often held on to an axiom that their best practices and strategies that worked elsewhere, even in other developing markets, would also apply to India. This was not the case. Success, she argued, would require an innovative strategy tailored for the Indian market… or rather… markets (refer to Exhibits 6, 7 & 8 for India's income demographics, GDP distribution and affluence layers).

The Indian shaving market

Gillette saw extraordinary opportunity for growth. Most Indian men had an abundant, full set of facial hair that needed to be shaved daily to keep it clear of stubble. There were also a lot of them - 400 million men of shaving age. What excited and frustrated the company even more was that most of these men were still using double edge blades. Verma exclaimed,

In India, if you take out the men in the population who are too old or too young to shave you still have a consumer group of 400 million. Eighty percent of them are using this double edge blade. This is what King Gillette invented a hundred years ago!

Using antiquated double edge blade technology routinely caused cuts, nicks and rashes too. The Mach3 should not have had any difficulty competing against such epidermal abuse. As it turned out that, this was not the case.

In 2008, nearly ten years after Gillette sold its first Mach3, nearly half of all shaving men regularly visited a barber, and half of those men exclusively visited a barber for all their shaving needs. Barbers were also affordable, costing just US$0.15 to US$0.30 for a shave. The rest of the male shaving-population, roughly 300 million men, practiced self-shaving. Eighty percent of these men used double edge blades.

Double edge blades were the accepted norm as they were readily available and cheap, costing only US$0.05 per blade. They had been in use for generations, which brought up an important point. India existed in multiple centuries at once through a compromise, or perhaps, a synthesis of the traditional and the contemporary.[21] On average, consumers in India were risk averse and did not make purchasing decisions lightly.[22] New ways and new things were not adopted wholesale.[23]

However, upper-middle class urban males, the target segment, were not nearly as sensitive to the premium priced Mach3 when compared to the low-earning masses. For them, how they chose to shave was much more a matter of entrenched behaviour. Shaving was a simple, routine habit that could even be considered traditional. Verma said,

It's a habit. The Indian consumer has been doing it for so long. He's seen his father, his grandfather, his great grandfather do it.

[9] Rama Bijapurkar, We are like that only: understanding the logic of Consumer India (India: Penguin Books, 2007), p. 16.
[10] Ibid. P. 16 [11] The World Bank, "Data – GDP per capita, PPP", downloaded from The World Bank website, http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?page=1, accessed April 2013.
[12] Government of India, Ministry of Home Affairs, 2011 Census of India: Age Structure and Marital Status, http://censusindia.gov.in/Census_And_You/age_structure_and_marital_status.aspx, accessed April 2013.

Cuts, nicks and rashes were just seen as an inevitable part of shaving. Consumers did not perceive a need to try anything new or different, and adoption rates into other shaving systems were historically low. Other systems, like disposable razors were used by a minority of the male-shaving population and cost about US$0.20 on average. The Mach3, which cost US$7.00 for the razor and US$2.00 for the blade, was used by only a small fraction of India's male shaving population. Verma explained the predicament of the Mach3,

It's a very interesting situation we're in. The awareness of what we're offering is low, and the high quality of our product costs us much more to produce than our competitor's cheaper products. Add to that, the fact that our product has a very low involvement category.

Gillette's offerings in India

Adoption of razors typically followed a rungs-on-a-ladder pattern in Western countries. Male consumers started shaving with a simple model and progressed along a ladder towards increasingly sophisticated models. In the US, Gillette observed that each move up a rung in the shaver-ladder represented a 20 percent increase in price, and consumers moved rapidly towards the top of the market. For example, consumers would first adopt the Mach3 before moving up to the top-of-the-line 5-blade Gillette Fusion. It was assumed that consumers wanted the best shave they could get.

The original assumption at Gillette was that the Indian market would follow this Western pattern: consumers would start at the lower end of the market with double edge blades, and progress to Mach3. But the Indian market was proving the model wrong. When most men shaved, they used a technology that was originally designed in 1895 - the double edge blade. And they never went beyond; the segment was unresponsive.

The question was then, why did Indian men not move up the ladder? A partial reason was that they associated nicks and cuts as an inevitable aspect of shaving. They believed it was more a matter of skill rather than a property of the blade; it was a habitual way of thinking about shaving (refer to Exhibit 9 for a diagram of shaving methods used by Indian males).

Habit was not the only adoption barrier for the middle-class urban male. The segment did not appreciate the value that the Mach3 had. Verma noted,

Then there is the fact that the Mach3 is considered to be a premium product for the Indian consumer. Think of something that you buy or use everyday – if there was a product that costs ten times of what you usually buy that also had the same function, would you even think of buying it? Would you even look at it in the same category? After you look at the price, would you even want to know more about it? And yet this is the product that I want to sell.

The consumer did not believe a different blade would make a difference in their shaving experience. In addition, the jump in price between this 100-year-old technology and the next technology was too big. If the price difference was only 20 percent or so – as it was in the US – then some men might be tempted to try the Mach3. In India, however, the jump to a Mach3 blade was 40 to 50 times the price of a double edge blade.

Gillette eventually came to realise that the ladder model worked in the US as sequential innovations provided smaller steps to get to the next level. But this was not working for the Indian consumer. The gap between one category and the next was simply too wide – there were no incremental steps that would have helped the Indian consumer adopt. India required its own product and marketing strategy.

Price point alignment

Gillette India's research had shown that three main drivers influenced a consumer's buying decision for a Mach3: price, availability and perception. The Mach3, it was decided, would have to be modified in order to bring down its production costs so that the price point could be properly aligned.

Verma remembered wrestling with the price point issue back in the early days before the "Shave India Movement". He had contacted Harish Narayanan, the Assistant Brand Manager at the Singapore Regional Business Unit. He was responsible for working on more upstream projects and was Verma's connection to the global team based in Boston. Verma said to Narayanan

[13] Central Intelligence Agency, The World Factbook: India, downloaded from https://www.cia.gov/library/publications/the-world-factbook/geos/in.html, accessed April 2013.
[14] Rama Bijapurkar, We are like that only: understanding the logic of Consumer India (India: Penguin Books, 2007), p. 16.
[15] Ibid. P. 34 [16] Ibid. P. 34 [17] Ibid. P. 39 [18] Rama Bijapurkar, We are like that only: understanding the logic of Consumer India, (India: Penguin Books, 2007), p. 47.

These modifications need to preserve our brand's promise of great performance, along with great value. And we need to create consumer excitement to drive adoption. Let's see what tools and ideas we can create to make this happen.

Immediately Narayanan understood what needed to be done. He said,

Let us work with the Global and Engineering teams about stripping out everything non-essential to the consumer experience from Mach3, while still providing a superior shave.

The result was a downward innovation that pared down almost every feature except for the blades – the most important component for a good shave. The following deconstructions were therefore made:

1) The razor was made lighter and less expensive by introducing plastic in the metal handle.

2) The plastic storage tray was discarded, since it was not important to the consumer for his shaving experience.

3) The packaging was streamlined down to the bare minimum, while still retaining and improving its presence on shelf.

Other changes to production were also made and assembly was brought to India to further ease costs. This in itself was an innovation, enabled by bold decisions in the Product Supply team – a first for a company that had always produced its razors outside of India.The team had succeeded in realigning the price point dilemma. They were able to reduce the razor's retail price from US$7.00 to US$2.30, while maintaining a fixed US$2.00 price for the blades. Only two challenges remained: distribution and perception.

Project Hercules

Verma and his fellow colleagues knew that getting the Mach3 accepted by male consumers would require a focused initiative. Project Hercules was thus conceived as a means to drive this effort. Scheduled to run for one year, the mission of the project sought to educate and change the mindset of Indian men: to convince them to at least try the Mach3.

Distribution

There were serious distribution challenges that needed to be addressed as well. Thankfully the Mach3's new lower price helped attract more retailers interested in carrying the product. Still, without further improved distribution the product would remain unavailable to many consumers - even if they wanted it and could afford it.

India's retail sector was massive. In 2010 the market was valued at an estimated US$450 billion and expected to grow to US$900 billion by 2015.[24] Small independent retailers, called kiranas, dominated the market. There were approximately 12 million of them, accounting for 95.5 percent of retail enterprises. The remaining 4.5 percent of stores, classified as organised retailers, were larger stores like supermarkets, hypermarkets, and convenience stores (refer to Exhibit 10 for a picture of a typical Kirana stall).

The Mach3 was already carried at most organised retailers. The issue was getting into the smaller kiranas. Their small size, extremely widespread distribution and unregistered status made it impractical for Gillette to move the product into these stores. In response to this challenge, Verma said,

We worked with wholesalers to get our product into the smaller outlets. We engaged in a lot of logistical planning, how to move it, how to package it and determined the optimal SKU count and so forth. We also had to rapidly distribute this and make the product stand out. We needed to be accessible and there were over 1.5 million – 2 million stores we wanted to be in. So we went through multiple rounds of testing to see what worked best to make the product stand out. Eventually we got there.

Making the product available to more retailers was only part of the challenge. The other side of it was making it both feasible and attractive for the retailers to carry. This was an important consideration since kirana stores were very small and had limited inventory space, this characteristic put significant pressure on shop owners to have a fast turnover. Verma explained,

Packaging had to be made so that it could easily and readily be displayed in stores. It had to work for the retailer. We determined how we could ensure the profitability for the retailer – especially since the adoption was slow. So we really needed to create awareness too.

[19] Ibid. P.47 [20] Ibid. P.47
[21] Rama Bijapurkar, We are like that only: understanding the logic of Consumer India, (India: Penguin Books, 2007), include p no.
[22] Ibid. [23] Ibid.

Perception

In terms of perception, there were two main impediments to adoption. The first was the value proposition. Realigning price point helped, but consumers still needed to be made aware of the product's benefits. Verma explained:

The question was one of value. You have to understand that the cost of the razor is not just the value part. First, if you buy a double edge blade, it will last just one shave - maybe two shaves. Whereas this new product could give you 20 shaves, depending on the kind of hair you have. It's also more hygienic, you don't cut yourself. The value that the consumer perceives is much better when you use a Mach3. So once you make that initial investment you'll learn that it's not 40 times, but maybe two or three times the cost, because the value that you get out of it is actually much more. The benefit is better.

The fact was, most Indian men still believed that Mach3 would still cut his skin in the same way that cheap blades did.

The second, and more difficult, impediment to overcome was one of taste. In India, facial hair was traditionally seen as a sign of virility. It was even a job requirement for some professions. Throughout the 2000s, the two-day stubble look, sported by popular Bollywood actors, was thought to be hip and attractive. Facial hair was in fashion.

A marketing campaign to talk about

Gillette needed to educate consumers and convince them to use Mach3 blades. However, the segment proved unresponsive to traditional mass marketing campaigns. Narayanan discussed the matter with Verma,

We have tried all sorts of ads around all sorts of features: Smooth shave, fast shave, comfort, no cuts, long-lasting blades, etc. etc. etc. We sold it all. Sold it for a hundred years. We were the first ones to do sports marketing. When it comes to brand building, we've done it all. What more can we do? What is the next innovation that is relevant to the India consumer, and at the same time builds on the fantastic characteristics that this brand has?

Gillette India returned to its founder's roots and launched a door-to-door educational campaign. The company's marketing and sales people were sent out to individual homes and demonstrated the product. The team found that consumers were eager to adopt the Mach3 after trying the blade. These hands on tactics were quite successful, but clearly unsustainable and insufficient given India's size. Narayanan pondered at the scope of this task…

And then comes this whole, mammoth, confusing, chaotic, but fantastic place that is India. It's mind-boggling to try and understand. The way I explain India to my friends who have moved to Singapore or moved to India for the first time, is to think of India as a continent. Think of it as Europe. Don't think of it as a country. If you go to India and ask them if they speak Indian they laugh at you, because it's like Europe. It's like a continent, it has so many different cultures, so many different languages and so many different types of facial hairs; you name it. It's so different, and it's so difficult to talk one language with them.

The team also knew that reaching their target customer would require something different from previous and traditional P&G/Gillette advertising campaigns - culturally, Indian men did not talk about their grooming habits. Conversations like, "Wow! You look like you got a really close shave. What kind of razor do you use?" were not happening. Verma lamented,

We have to get the costs down on every element, including marketing spend. And word of mouth is really powerful - it creates a multiplier effect.

Gillette needed to create a buzz and put the clean shave back in fashion – people had to start talking about shaving.

The Shave India Movement

In late 2008, Gillette commissioned an AC Nielson study on shaving that targeted 18-25 year olds across India's eight largest metropolitan areas (refer to Exhibit 11 for India's top metropolitan areas by population). The findings were striking and contrary to current facial hair fashion: 77 percent of women preferred a clean-shaven man with 72 percent agreeing that the act of shaving was sexy. It was just the opportunity needed to get India talking about shaving. Narayanan agreed with Verma,

[24] Taylor Salisbury, "The Future on Sale: The Indian Retail Market," Center for Strategic & International Studies, South Asia Monitor, Number 137, January 06, 2010, http://csis.org/files/publication/sam_137.pdf, accessed April 2013.

At P&G we talk about moments of truth. When you interact with a consumer you have certain moments of truth - the test of your product. The first moment of truth is when the consumer enters the store. He hasn't seen your product, or he is just seeing it for the first time. You want him to pick it up and look at the packaging. The second moment of truth is when he uses it. You have to bear in mind both moments of truth. There is also a zero moment of truth, which is communication – he has not even seen your product but he has a perception of it. So, in India we win in pretty much all moments of truth. The product is fantastic, but the category is non-responsive! That was our biggest challenge.

How do you motivate men to talk about a category like shaving?
Get women involved.

India Votes: To shave or not, 2009

The Shave India Movement began just as Gillette announced the results of the survey and the launch of the newly modified Mach3 in 2009. The results created a sensation by pitting what the women found attractive against what men found cool. This kind of contradiction was exactly what Gillette India needed.

India was a country that loved to debate. Amartya Sen's seminal book, The Argumentative Indian, highlighted the importance that public discourse and intellectual pluralism were to the national identity. The strategic relevance of this characteristic cannot be understated. The media quickly latched on to the survey results and a national debate about shaving ensued.

Gillette further stoked the debate through their campaign, 'India Votes: To shave or not', in which they invited everyone to vote in an online live polling. In all, 12.2 million Indians voted for a clean shave, where it was found that 83 percent of women polled felt that a clean-shaven man was more attractive. This was accompanied by a highly covered PR event in which Gillette sponsored Bollywood stars to shave on live television. Media across the country picked it up and created a huge buzz in the urban markets. In eight weeks the campaign doubled awareness of the Mach3, product trials increased four times, sales went up by 35 percent and market share increased by 25 percent (refer to Exhibit 12 for a link to an online video about the "Shave India Movement").

Women Against Lazy Stubble, 2010

The next phase of the Shave India Movement took place in early 2010. Women Against Lazy Stubble, or W.A.L.S., called on women to protest against the stubble look. The debate was reignited. For two months television stations, radio and newspapers held interviews in which popular actresses spoke out on the stubble. The media also carried opinion polls and covered stories on W.A.L.S.

In Mumbai 2,000 men shaved off their stubble in front of crowds of cheering women, in what was deemed, the world's largest Shave-a-thon.

The Shave India Movement Facebook page became a forum for mass debate and discussion – it seemed everyone had something to say on the matter. The effect was huge: Mach3 sales increased by 500 percent and market share increased by 400 percent. Gillette's value share crossed 40 percent and their volume share hit 58.1 percent, the highest ever for Gillette India. All of which occurred, again, in eight weeks.

Breaking internal records

The Shave India Movement was a resounding success. Mach3 awareness and usage had increased, mostly among urban males. But Verma believed more was possible; could this Movement be used to drive even more sales? And if so, how? They also understood that other segments were still untouched by Gillette's razors. Many men continued to exclusively visit barbers and many millions more used double edge blades. They needed to address the needs of these segments and craft a strategy appropriate for reaching them. What lessons could they use from the successes of the "Shave India Movement" and could those lessons be applied elsewhere?

EXHIBIT 1:
RETAIL SALES IN INDIA, 2004-2011E

	2004	2005	2006	2007	2008e	2009e	2010e	2011e
Retail sales (US$ bn)	293	332.4	360.6	438.5	454.5	422.5	468.6	529.3
Retail sales, volume growth (percent)	3.9	5.9	5	4.3	0.7	2.9	4.3	4.5
Retail sales, US$ value growth (percent)	10.8	13.5	8.5	21.6	3.7	-7	10.9	13
Non-food retail sales (US$ bn)	90.3	104.7	116.1	144.1	145.4	132.4	145.9	162.7

Source: "Industry Reports: Consumer Goods and Retail in India," The Economist Intelligence Unit, May 2009.

EXHIBIT 2:
MARKET SHARES BY PERCENT RETAIL VALUE FOR MEN'S GROOMING IN INDIA, 2007-2010

	2007	2008	2009	2010
Gillette India Ltd	33.2	31.7	30.9	31.5
Hindustan Unilever Ltd	5.4	7.0	8.3	9.5
Reckitt Benckiser (India) Ltd	1.4	2.7	4.7	6.2
Vidyut Metallics Ltd	10.0	9.4	8.5	7.5
Malhotra Shaving Products Ltd	10.8	10.0	8.8	7.3
All Other	39.2	39.2	38.8	38

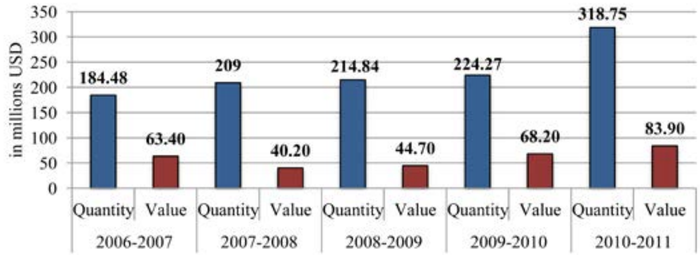
Source: Men's Grooming in India, Passport, Euromonitor International, September 2012.

EXHIBIT 3:
RAZORS AND BLADES BRAND SHARES IN INDIA IN TERMS OF PERCENT RETAIL VALUE, 2008-2010

Brand	Company	2008	2009	2010
Super-Max	Vidyut Metallics Ltd	15.2	15.0	14.5
Gillette Mach3	Gillette India Ltd	7.5	9.5	12.5
Gillette Vector Plus	Gillette India Ltd	12.8	13.0	12.7
Topaz	Malhotra Shaving Products Ltd	10.0	9.5	8.2
Wilkinson Sword	Gillette India Ltd	7.8	7.8	7.0
Laser	Malhotra Shaving Products Ltd	6.2	6.0	5.8
Others		40.7	39.2	39.3

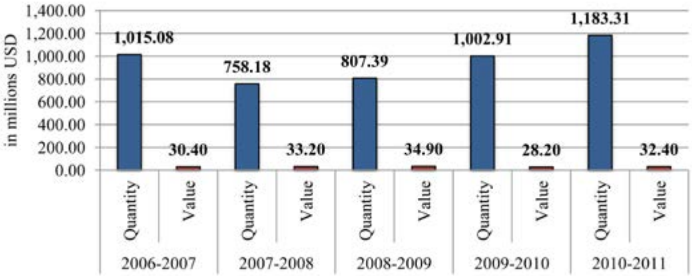
Source: Men's Grooming in India, Passport, Euromonitor International, September 2012.

EXHIBIT 4:
GILLETTE INDIA'S SALES IN RAZOR SYSTEMS AND BLADE CARTRIDGES BY VALUE AND QUANTITY, 2006-2011



Source: Proctor & Gamble Annual Reports: Gillette India Limited, 2007-2011

EXHIBIT 5:
GILLETTE INDIA'S SALES IN SAFETY RAZOR BLADES (DOUBLE EDGE) BY VALUE AND QUANTITY, 2006-2011



Source: Proctor & Gamble Annual Reports: Gillette India Limited, 2007-2011

EXHIBIT 6:
ESTIMATES ON INCOME DEMOGRAPHICS OF INDIA, 2004-2010

	2004	2005	2006	2007	2008	2009	2010
Nominal GDP (US$ bn)	697.8	810	923.5	1,133.50	1,164.10	1,121.40	1,264.80
Total number of households (m)	202.6	206.3	209.9	213.4	216.8	220	223.3
Households with annual earnings above US$5,000 ('000)	16,594	21,890	26,895	37,040	39,522	34,625	40,939
Households with annual earnings above US$10,000 ('000)	3,538	4,824	6,070	8,722	9,379	8,036	9,723

Source: "Industry Reports: Consumer Goods and Retail in India," The Economist Intelligence Unit, May 2009.

The middle class in India, defined as households with annual incomes of approximately US$4,500 to US$23,000, consisted of five percent of the total population, or 50 million people in 2005.[25] Median age for men equals 25.9 years and per capita GDP equals approximately US$3,700 (2011).[26]

[25] KS Oils, The Indian Consumer Market: a change from pyramid to sparkling diamond, KS Oils Limited, 2008.
[26] Index Mundi, Median Age of Indian Men, http://www.indexmundi.com/india/median_age.html, accessed April 2013

EXHIBIT 7:
GDP DISTRIBUTION BY INCOME PERCENTILES IN INDIA, 2004

Percentile of Income	Population (millions)	% of income	GDP per capita (US$)	Total GDP (US$ billion)
Top 10 percent	109	34.1	1,878	204.6
The next 30 percent	326	36.1	662	216.6
The Bottom-of-the-Pyramid, last 60 percent	653	29.7	265	178.2

Source: Rama Bijapurkar, We are like that only: understanding the logic of Consumer India (India: Penguin Books, 2007), p.102

EXHIBIT 8:
AFFLUENCE LAYERS IN INDIA BASED ON CONSUMPTION INTENSITY, 2006

Affluence layer	% of population	% of households in each layer consuming/ having					
		TVs	Cars	AC	Washing machine	2-wheel vehicle	Shampoo
Prosperous I	0.5	100	71	48	81	65	93
Prosperous II	0.5	100	44	26	76	72	91
Well off	2	98	24	5	53	69	89
Entering upper class	3	94	10	-	30	62	85
Aspiring	9	92	2	-	8	50	79
Average	10	79	-	-	-	30	70
Strivers	35	51	-	-	-	6	69
The poor	40	6	-	-	-	-	38

Source: Rama Bijapurkar, We are like that only: understanding the logic of Consumer India (India: Penguin Books, 2007), p. 96-97

EXHIBIT 9:
SHAVING METHODS USED BY INDIAN MALES

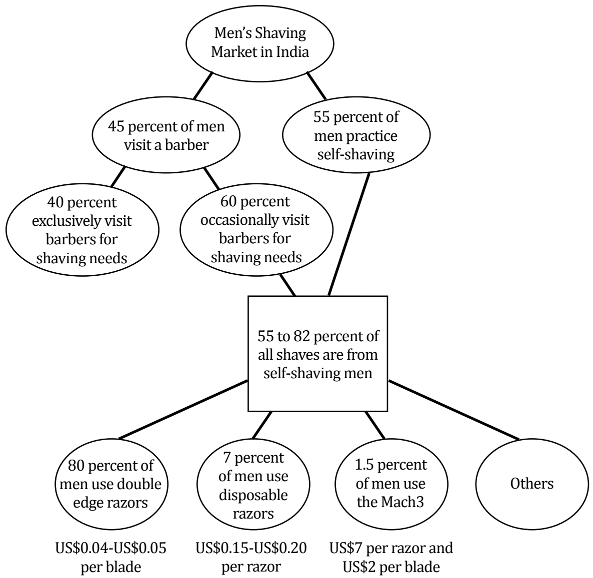


EXHIBIT 10:
PHOTOGRAPH OF A KIRANA STORE

Note: The kirana store is a small independent retail store that is common throughout India. The shopkeeper is usually the only person inside the store since space is extremely limited.

Source: Nita Jatar Kulkarni, photographer and blogger. Stock Pictures – Free Photographs: Small retailers in India. 28 Nov. 2011. Photo retrieved from: http://www.stockpicturesforeveryone.com/2011/11/small-retailers-in-india.html, accessed April 2013.

EXHIBIT 11:
INDIA'S 10 LARGEST CITIES BY POPULATION (EXTENDED URBAN AREA), 2011

Rank	City	Population
1	Delhi	21,753,486
2	Mumbai	21,753,486
3	Kolkata	14,617,882
4	Chennai	8,917,749
5	Bangalore	8,728,906
6	Hyderabad	7,749,334
7	Ahmedabad	6,352,254
8	Pune	5,049,968
9	Surat	4,585,367
10	Jaipur	3,073,350

Source: Press Information Bureau, Government of India, India Stats: Million plus cities in India as per Census 2011. Retrieved from: http://pibmumbai.gov.in/scripts/detail.asp?releaseId=E2011IS3, accessed April 2011.

EXHIBIT 12:
VIDEO ON THE "SHAVE INDIA MOVEMENT": INDIA VOTES TO SHAVE OR NOT

For video on YouTube about The Shave India Movement: India Votes to Shave or Not and Women Against Lazy Stubble, go to: http://www.youtube.com/watch?v=JNqdTmkTBOQ

GILLETTE'S "SHAVE INDIA MOVEMENT": RAZOR SHARP AGAINST THE STUBBLE (B)

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Christopher Dula,
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Adina Wanjun WONG,
Singapore Management University

Publication Type
Case

Year Completed
10-2013

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Data Source
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Industry
Fast Moving Consumer Goods

Geographic Coverage
India

Temporal Coverage
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Education Level
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Keyword(s)
Frugal innovation, bottom of the pyramid, diffusion of innovation, innovation, consumer adoption, consumer adoption process, technological innovation, segmenting and positioning, market segmentation, positioning, opinion leader, communication, advertising, channels, distribution, price-based costing, price point alignment, value proposition

Abstract

Case B begins in May 2010 with Sharat Verma wondering how he could extend the "Shave India Movement" from the urban elite down to consumers at the bottom of the affluence pyramid through a new product, the Gillette Guard – set to launch five months later in October. This new product was designed specifically for low-income consumers in India. With the price-point and distribution dilemma already solved vis-à-vis the successes of the Mach3 campaign, he now needs to craft an activation strategy that would extend the Shave India Movement to all rungs of society.

In India, nearly half a billion men still shave with a century-old technology—the double-edge razor—because there's no safe alternative they can afford. To add to the inevitable risk of nicks and cuts, many men shave sitting on the floor in low light, while balancing a mirror against a wall. It's an intense, tedious and time-consuming process.

- Gillette 2011 Annual Report

It was May 2010 and Sharat Verma was riding high on the success of the "Women Against Lazy Stubble" (W.A.L.S.) campaign, the latest iteration of Gillette India's "Shave India Movement". The campaign had further increased sales of the Mach3 by 500 percent in India and he was hoping to replicate that success with their new product, the Gillette Guard, set to launch five months later, in October.

While the Mach3 was targeted at consumers towards the top of India's income distribution, the Guard was designed for the masses at the bottom-of-the-pyramid, which represented over 70 percent of the country's population. It was a radically different shaving system from the hundred-year-old double edge razor technology that was still used by some 80 percent of India's men. Breaking into this consumer segment posed an ostensibly similar challenge to what Verma initially faced when marketing the Mach3 back in 2008. He explained,

For quite some time now we knew there was need to have a product that could help accelerate the conversion from double edge to our systems. This was a challenge since the product we wanted to convert people from was part of an engrained shaving habit and it was very low-cost… Going from a double edge to something like the Guard is a big habit change, especially for someone in rural India. People are really risk averse. They are not open to experimenting with new products because they have limited means. They don't want to waste any money.

Verma realised that it was important for Gillette to replicate the Mach3's recent success for the Guard. The new product was meant to make inroads into the urban-poor and rural markets, which were increasingly aware of the Mach3, but lacked the purchasing power to buy it. The Gillette Guard was therefore developed specifically for the safety and affordability needs of this segment of the Indian market.

Gillette had already made significant progress concerning the challenges posed by India's vast, complex channels and distribution system. Verma now had to tackle the challenge of convincing people to transition from the double edge to the Guard. He was hopeful his experiences with Gillette's "Shave India Movement" and the Mach3 would help. However, the segments served by the Mach3 and Guard were so different in terms of socio-economic status, living conditions, shopping patterns, and shaving habits that he was uncertain how lessons from the Movement could be applied to marketing the Guard. Verma knew one thing was certain:

To win in India, we need to be able to win in all segments – double edge, disposable, entry-level and high-end systems.

This case was written by Professor Srinivas Reddy, Christopher Dula and Adina Wong at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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The rural market for razors in India

> **We learned that [men in rural India] valued safety, ease of use and affordability above all else.**
>
> - P&G, Gillette Guard marketing material

As early as 2007, P&G dispatched a multifunctional team into India's rural areas to get a first-hand look at how men there lived... and shaved.[1] They learned that rural men shaved under very different conditions than their counterparts in developed markets. These men usually shaved while sitting on the floor, often in low-light conditions, with a cup of water and handheld mirror.[2] This, in conjunction with a cheap blade, easily led to nicks and cuts. For men using double edge blades this was a daily occurrence and most of them accepted it as part of the shaving ritual. These men were usually unaware of safer, more comfortable options – and if they did know of other options, such as the Mach3, they dismissed them as being too expensive.

Besides being uncomfortable, nicks and cuts increased the likelihood of infections. Since it was common in rural in India to be paid on a daily basis, it was especially important not to fall ill since it could drastically affect a family's livelihood. Intermittent access to water also meant that men did not shave everyday. They needed a blade that could easily shave longer hair and be used with a minimal amount of water.[3] P&G saw an opportunity for Gillette to provide the segment with a safer more comfortable razor (refer to Exhibit 1 for an example of a man shaving with a double edge blade.

The rural market for razors in India held huge potential for Gillette, as it comprised about 400 million men, and almost all of them used double edge blades.[4] In 2010, the most popular double edge blade in India was the Super-Max brand, which cost at most US$0.03 per blade. Given their price-sensitivity, bottom-of-the-pyramid consumers in India were less willing to buy a blade that was above this price-point. It was very difficult to convince consumers in the lower affluence layers to transition away from products that they habitually used in the day-to-day. These were sceptical and discerning consumers who would only transition if they clearly understood the value-proposition and believed it (refer to Exhibit 2 for affluence layers in India).

The One-Rupee-Shave

Gillette Guard is a breakthrough new shaving system designed to provide a safe, high-quality shave at an affordable price for more than one billion men in emerging markets who today shave with double edge razors. As the first Gillette product designed specifically for men in these markets, Gillette Guard is one of the most significant product launches in Gillette history.[5]

Price–based-costing

The Guard was developed based on the insights gathered by the P&G team on their numerous visits to rural India. It was the first product that the company had created entirely in developing markets, for developing markets.[6] The company set out with the objective of creating a one-rupee-shave (roughly US$0.02), an affordable price for the bottom-of-the-pyramid segment. From there, the Guard was designed as a safe and hygienic shaving system that could be manufactured cost effectively and sold at the targeted price.[7] It was a simple design that only contained three parts – the blade, the blade housing and the support handle, all of which was manufactured entirely in India (refer to Exhibit 3 for features on the Guard).[8]

The Guard's blade cartridge was good for five shaves with each replacement blade costing about US$0.08 – a price equivalent to a sachet of shampoo or a small tube of toothpaste. The lower price would also encourage small shops, called kiranas, to carry this item in stock since it fit the budget of most customers (refer to Exhibit 4 for an affordability analysis of consumer items in India)

[1] The Wall Street Journal. Gillette's Latest Innovation in Razors: The 11-cent Blade. 1 October 2010.
[2] P&G. Gillette Guard – Improving Life for Men Around the World 1 October 2010. Company website, retrieved from: http://news.pg.com/blog/product-innovation/gillette-guard-improving-life-men-around-world, accessed August 2013
[3] Household and Personal Products Industry, ". New Gillette Guard Razor Debuts in India," 1 November 1, 2010. [4] "Gillette's Latest Innovation in Razors: The 11-cent Blade," The Wall Street Journal, October 1, 2010.
[5] P&G. Gillette Guard Fact Sheet, retrieved from: http://www.pg.com/en_US/downloads/innovation/factsheet_final_Gillette_Guard.pdf, accessed August 2013.

Reaching the rural population

You need to rely on the wholesalers to get your product into the smaller outlets to adopt the system. So we had to engage in a lot planning, determining the optimal case count. Packaging had to be made so that it could easily and readily be removed from the carton and displayed in stores [usually kiranas]... We also had to consider the trade margin structure - we had to determine how we could ensure the profitability for the retailer per blade – especially since the adoption of the [Guard] razor system would be slow versus double edge. We next had to create awareness.

Gillette wanted to achieve a multiplier effect per dollar of marketing spend on the Guard. This multiplier effect would rely on word-of-mouth, so getting the rural consumer on a talking point would be important. Verma believed the large number of kiranas dispersed throughout India would play an important role. The small shops were the dominant retail outlet in rural areas and often played a large role in influencing purchasing decisions.

The Gillette Guard was about to enter the market as an affordable alternative to the double edge blade. It offered a clean-shaven look that promised a healthier more comfortable shave than double edge blades. With the value-proposition, price-point and distribution channels finalised, Verma needed to develop a brand activation strategy that would build awareness and drive segment response.

The details

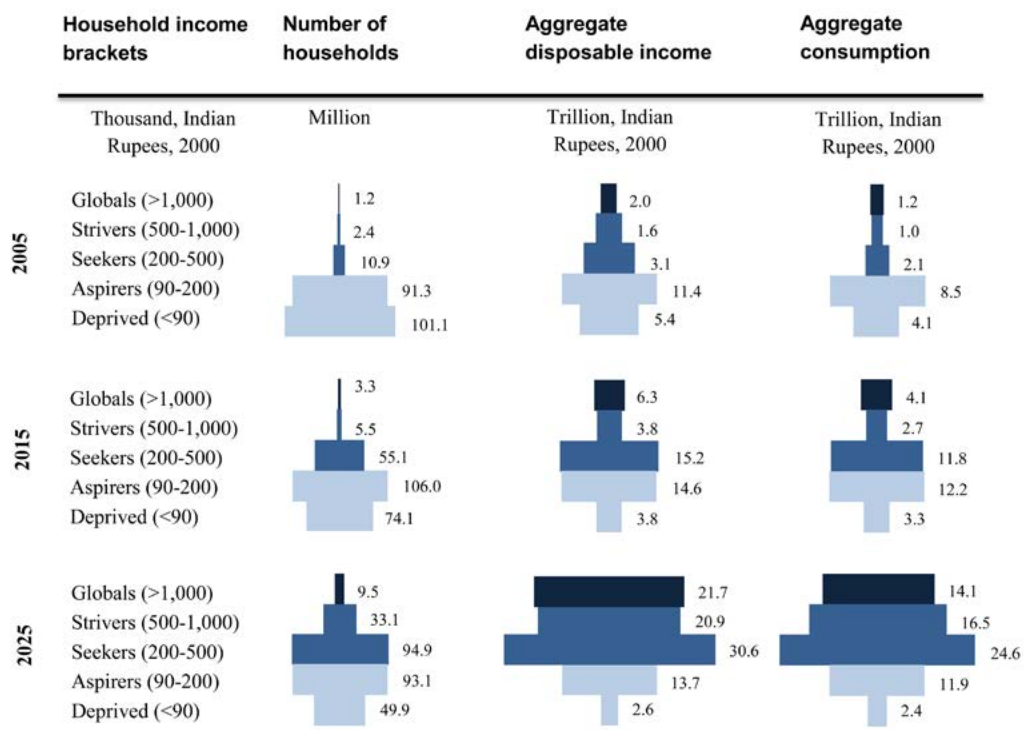
Through a deep understanding of the rural segment, Gillette designed, developed, manufactured and priced the Gillette Guard at US$0.33 per razor system and US$0.08 per blade cartridge. Verma considered which touchpoints would best fit the Guard's marketing campaign in rural India. Success could even pave the way for additional Gillette products for the segment. The Guard would therefore serve as an entry-level product that could attract new customers and serve as a mechanism for some of those customers to eventually trade-up to higher margin products, like the Mach3, or purchase complementary products like shaving cream. It was believed this strategy would double Gillette India's sales revenue in three years.

Still, pressing questions remained on Verma's mind. Would the rural Indian shaver embrace the Gillette Guard? With a tradition of using double edge blades for generations, could these men be convinced to switch? Would the affordability and safety arguments be sufficient to convince the rural shaver? The W.A.L.S. campaign worked well in marketing the Mach3. Could a similar campaign work for Guard? If not, what other creative ways could Verma use to influence the rural consumer?

EXHIBIT 1:
A MAN SHAVING WITH A DOUBLE EDGE BLADE

[6] P&G, ". Gillette Guard – Improving Life for Men Around the World," 1 October 1, 2010. Company website, retrieved from: http://news.pg.com/blog/product-innovation/gillette-guard-improving-life-men-around-world, accessed August 7, 2013.
[7] The price-based-costing is a term coined by the eminent academic, Professor Raj Srivastava and can be considered the route for a number of reverse innovations occurring in the emerging markets
[8] Household and Personal Products Industry, "New Gillette Guard Razor Debuts in India", 1 November 1, 2010.

EXHIBIT 2:
AFFLUENCE LAYERS IN INDIA BASED ON AGGREGATE CONSUMPTION AND DISPOSABLE INCOME BY HOUSEHOLD EARNINGS BRACKETS



Source: McKinsey & Company. The 'Bird of Gold': The Rise of India's Consumer Market. McKinsey Global Institute. May 2007.

EXHIBIT 3:
FEATURES OF THE GILLETTE GUARD

Focus on Safety:

- Single-blade system lined with a safety comb designed to prevent nicks and cuts
- Flexible pivoting razor head helps better manoeuvre the curves of the face and neck and tackle the hair under the chin – difficult areas for double-edge razor users to shave safely
- Easy-to-manoeuvre handle with a light weight, ribbed design offers excellent one-handed control to help prevent nicks and cuts

Added Convenience:

- Easy-rinse cartridges to prevent clogging
- Hang-hole at the end of the razor handle provides a convenient means of storage
- Easy-click docking makes it faster and easier to connect the blade to the razor versus the complexity of assembling a double edge razor

EXHIBIT 4:
AFFORDABILITY ANALYSIS FOR CONSUMER ITEMS IN INDIA, 2009

Item	Price (US$)	% of monthly personal disposable income
Soap, 100 g (supermarket)	0.35	0.49
Light bulbs, two, 60 watts (supermarket)	0.54	0.78
Electric toaster (supermarket)	24.62	35.27
Shampoo & conditioner in one, 400 ml	3.45	4.95
Lipstick, deluxe type (chain store)	9.87	14.14
Business suit, two piece, medium weight (chain store)	296	424.1
Dress, ready to wear, daytime (chain store)	49.35	70.68
Child's shoes, sportswear (chain store)	43.18	61.84
Compact disc album	11.1	15.9
Television, colour, 66 cm	826	1,184

Source: The Economist Intelligence Unit. Industry Reports: Consumer Goods and Retail in India, May 2009.

ENCOMPASS: CREATING INNOVATION

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Abstract

Headquartered in the United States, Encompass Digital Media provides digital media services through its broadcasting facilities in the United States, the United Kingdom and Asia. Encompass delivers tailor-made solutions for the management and distribution of content, including a diversified range of TV content, as well as live sports events for companies such as ESPN, IMG, Star Sports and Sony Entertainment.

Encompass Digital Media (Asia) began its operations in Singapore in 2009. By 2012, the company had captured over 50 percent of the market for outsourced Digital Playout services in Asia. While manpower costs were significantly higher than in China, India and neighbouring South East Asian countries, the stability of the Singapore government, an established infrastructure and a friendly business environment made up for the higher costs. At the same time, the group was facing increasing competition.

The sheer speed of growth that Encompass Singapore was experiencing called for an innovative, solutions-driven approach to almost all aspects of the business. Growth in the media industry was costly and capital intensive. Process innovation had been critical in supporting the growth of the company since 2009, when the volume of business had increased dramatically. But could process innovation alone continue to fuel double-digit growth?

Through this case, students will understand the concept of process innovation, and how it differs from business model or product innovation. They will learn to appreciate the factors that are required to develop a culture of constant innovation, and analyse the drivers of innovation.

Keyword(s)
Culture of innovation, process innovation, drivers of innovation, solutions approach, media industry, singapore

Encompass: Creating innovation in broadcast, everyday

In late October 2012, Hurricane Sandy devastated portions of the Caribbean, the United States and Canada. The storm destroyed homes, businesses and the basic infrastructure of cities along its path. The destruction it left in its wake produced an outpouring of sympathy from across the globe for its victims. On December 12, 2012, the Robin Hood Fund organised a concert to help Hurrricane Sandy's victims. Leading artistes including Bon Jovi, Eric Clapton, Billy Joel, Alicia Keys, Chris Martin, Bruce Springsteen & the E Street Band, Eddie Vedder, Roger Waters, Kanye West, The Who and Paul McCartney lent their talent to the event. In order to maximise the benefit of this concert for those afffected by the hurricane, the organisers decided to showcase the event 'live' globally.

This presented an unprecedented challenge for broadcasters. The concert had to be beamed live from Madison Square Garden in New York to over 800,000 viewers across Asia, and subsequently, it had to be broadcast over a large number of channels across the region within three days. Compounding this challenge were regulatory requirements for all content to be vetted and edited in real-time for cultural and religious sensitivity before it was made available to Asian audiences – a feat that, if performed successfully, would be an industry first.

The challenge for Encompass Digital Media was twofold: to mobilise viewers in Asia to donate to the 'Sandy Relief Fund', and to ensure that viewers enjoyed flawless streaming of the live broadcast. The latter represented a particular challenge in that content had to be streamed almost simultaneously to being received. But the editing of content was a time-consuming process. Typically, material was downloaded in high resolution format, converted into low resolution files that could be edited, and sent to the Censorship Standards and Practices (S&P) team for editing, after which the files were converted back into high resolution content, for editing according to the guidelines from the S&P team, and finally aired to the viewers. The entire process of translating the files into different formats would typically take over three hours. But the team did not have that amount of time available to them.

To meet this challenge head-on, Encompass Singapore put together an innovative and cost-effective solution in less than 48 hours. An essential element of this solution was the way that Encompass had mustered different specialist teams to work on the project concurrently. By doing so, Encompass was able to simultaneously transcode, trans-format, edit, and store content digitally. Storage was important, as it would enable the company to continue to use the content in future broadcasts at no additional cost.

Fiftteen thousand kilometres from New York, Encompass teams in Singapore were keeping watch at their stations, anticipating the commencement of the concert. As images started streaming in from Madison Square Garden, the teams got to work. While the Censorship and the S&P Edit teams were viewing and editing content in real time, the Network team ensured that the studio's multi-tasking equipment was working like clockwork to feed content out, and the operations team, which was monitoring the outgoing feed, made sure that the feed being transmitted to viewers was flawless.

As the excitement of the concert reached a feverish pitch, so did the concentration of online activities at the event site, choking what was an already limited Internet bandwidth. To keep the event organisers updated regularly, the Encompass team had to work around the unavailability of digital communications. What they thought of using was a system that was a tad archaic but no less innovative – short messaging service. By reporting back to the organisers in 15-minute cycles, the Encompass team was able to provide them the needed assurance that everything was working according to plan.

This case was written by Professor Arnoud de Meyer and Anne-Valérie Ohlsson at the Singapore Management University. The case was prepared solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying informatiion to protect confidentiality.

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At the forefront of the new media industry: Encompass Digital Media

Headquartered in the United States, Encompass Digital Media provided digital media services through its broadcasting facilities in the United States, the United Kingdom and Asia. By 2012, the company's clients included television stations, sports broadcasters, cable and satellite networks and governments. Encompass delivered tailor-made solutions for the management and distribution of content, including a diversified range of TV content, as well as live sports events for companies such as ESPN, IMG, Star Sports and Sony Entertainment.

Globally, Encompass benefited from the increasing speed at which digital media needed to be produced and distributed. There were several reasons for the shift in the speed and format in which content needed to be delivered. First, consumers wanted the freedom to access content anywhere at any time, on their phones, tablets, laptops or TVs. As a result, a single sporting event had to be broadcasted in 20 different locations at the same time – and in different formats – before being broken down into smaller sections for use on phones, tablets and the like. Content providers could no longer enjoy the liberty of imposing a place and time for the viewing of content. Second, content had a much shorter shelf life: when a movie was released in one part of the world, consumers would expect its release in their market almost simultaneously. Finally, the growth in online piracy meant that if content was not delivered across the world rapidly, it made its way into pirated forums online. Broadcasters needed to release content swiftly and globally if they wished to maximise their revenues. These trends meant that broadcasters turned to companies such as Encompass to help them digitise and distribute content rapidly, sometimes in different languages, and with different advertisement inserts across various geographic locations.

Encompass in Singapore

Encompass Digital Media (Asia) began its operations in Singapore in 2009, with the acquisition of the Networks division of Ascent Media Corp.[1] Deepakjit Singh, the company's managing director, joined Encompass through the Ascent Media acquisition. The acquisition gave Encompass an 88,000-square-foot media centre, complete with state-of-the-art technology, a climate-controlled tape vault, and 15 satellite dishes. Between 2010 and 2012, the group introduced innovative ways to increase the capacity of the facility, making it the largest digital media services hub in Asia, with over 50 percent of the market.

Continuous electrical power was the most critical element of such an operation. In 2009, there had been a break in power to the equipment lasting approximately five minutes, leading to a large number of TV channels going 'black' for between 25 and 90 minutes. As a result, the team had completely redesigned Encompass' facilities, ensuring that 'no single power point should ever be dependent on a single power supply'.

In addition, the team needed to ensure that this design was realised without any interruption to its on-going broadcast services and implemented within a reasonable budget. Singh shared his confidence in how the Encompass facility had been innovatively redesigned to draw on power from different sub-stations, thus harnessing its own back-up power generators and uninterrupted power supply (UPS) systems:

With the current level of power redundancy in place, Singapore could go black and we could still keep transmitting TV channels to all the viewers in Asia for a week without any external source of power.

Early days at Encompass Singapore

Despite the strength of its local facilities, it was not easy for Encompass Singapore to establish a presence in Asia. Singh recalled:

When Encompass Digital Media started operations in Singapore three years ago, I had to persuade potential customers to visit our facility. Many were unsure that such a new company could provide end-to-end services to established content owners… We struggled to encourage new channels from other parts of the world to trust us to broadcast their channels in Asia.

However, we persisted and effectively turned the situation around in our favour. Today, we are partners to some of the biggest media names – MTV Viacom, BBC, Discovery and IMG.[2]

[1] The deal was worth approximately US$120M, split between US$113M in cash plus assumption of debt obligations worth approximately US$7M. "Encompass digital media buys Ascent Media's content distribution business", December 3, 2010, http://www.socaltech.com/encompass_digital_media_buys_ascent_media_s_content_distribution_business/s-0032581.html, accessed December 2012.

Singapore's strong regulatory environment made it an ideal base for companies for which intellectual property protection was critical. While manpower costs were significantly higher than in China, India and neighbouring South East Asian countries, the stability of the government, an established infrastructure and a friendly business environment made up for the higher costs. Ritu Sharma, head of digital content, explained:

Other markets are far more complex in terms of cost and infrastructure. For example, it takes a very long time to get an uplink and downlink license in India, which is typically a "bread and butter" service. China on the other hand is a completely different environment in terms of market penetration. Singapore is clean and transparent. The labour costs are high but it's much easier to do business and drive the desired quality of service.

By September 2012, the Singapore facility transmitted over 100 channels, adding an average of one new channel every third week. Revenues for 2011 stood at US$26.2 million (SGD$32.5 million[3]). Ninety percent of the company's revenues came from outside Singapore, from high content consumption markets like Korea, Japan, Hong Kong, New Zealand, and Australia.

The growth in demand translated into greater volume, and volume was critical to offset the cost of investment in hardware and software. As a result of its growth, Encompass could offer its customers more competitive prices, which in turn encouraged a greater number of customers to outsource their backend operations to the company.

Singh highlighted the importance of size and volume:

It's a volume game. For us to add a channel to my transmission today is much cheaper because we have reached a critical mass. But it's not viable for mid-sized broadcasters to invest so much money and try to recover it in such a short period. It's exactly the way the call centres or the manufacturing centres are growing.[4]

Volume also allowed Encompass' customers to reach more locations in a more cost effective manner than what they could have done, helping them lower the cost of distribution and processing. Singh explained:

The cost of launching a new channel — that was one of the major pain points for customers. How to address more countries in more formats at an affordable cost? Revenue from new media or revenue from a new country in the beginning is not high enough; therefore, our customers want to keep the entry cost low. Then again, what the customers said was, 'I want to enter new countries quicker.' The team in Singapore adopted innovative implementation methods to shorten the time between the decision and the launch to less than two weeks. This method of quick implementation was developed by the staff at the shop floor. They were able to cut small inefficiencies out of the system and gain over a month out of the traditional implementation time.

At the same time, the group was facing increasing competition. While existing players such as Technicolor and Redbee had left the market, new players were emerging, taking reference from the success of Encompass in the region.

The sheer speed of growth that Encompass Singapore was experiencing called for an innovative, solutions-driven approach to almost all aspects of the business. Sharma noted:

It's about keeping up with the speed of growth. Three years ago, we were transmitting 27 channels and had three to four large customers, and the question was "How do we grow to 100 channels?" No one thinks of growing to 100 channels in two years. That was unheard of. And the question then becomes one of supporting growth. You can't keep growing people. You can't have 150 people in your facility and then say let's get 50 more because we are at 100 channels. We want to get better and better and more efficient so that the same team can do more. We don't think about how the work has been done traditionally, but how do we do so innovatively. We need to drive efficiency through innovation.

Process innovation had been critical in supporting the growth of the company since 2009, when the volume of business had increased dramatically. But could process innovation alone continue to fuel double-digit growth? And how might a top-tier team continue to create a sustainable competitive advantage for Encompass? Lin Lin Ng, chief financial officer, commented:

It is exactly because our labour costs are high that we need to look at those costs very carefully and think about automation and other solutions. We have to make it efficient through automation and innovation, so that we can bring down costs. Labour cost is three times more expensive in Singapore than in India but Singapore is very effective and efficient. It's more cost efficient to work here than in India.

[2] Business Times Singapore, Overcoming that fear of making mistakes, June 9, 2012
[3] US$1= SG$1.24 as at February 12, 2013.

A culture of innovation

Singh was very clear about what it took to win in his industry:

My philosophy is simple: first, allow people to make mistakes. Second, allow people to implement their ideas. Both of these create a sense of belonging that you can't get any other way. And when you go to our people and say, "We seem to have a challenge (problem)" or "Can't we do this any other way?" it awakens the child in them, and they start thinking creatively. Innovation is common sense – if I take away the barriers to change, and I encourage people to own their work, it's really not that difficult.

Let me give you an example. We had a new customer; they wanted their channel to have a unique feature that was slightly different. When you watch TV today, every channel has something slightly different. Adding this point of difference to the programs involves developing or acquiring a very expensive piece of software that runs into thousands of dollars. Our client wanted this option but did not want to spend that much money. We spoke to our engineers, and one immediately said, "Oh, we have done a similar feature for another customer and if we spend some time, we can develop a plug-in". He and the team worked for 15 days and nights in a row and developed the plug-in. As a management team, we heard the suggestion, added to it, devoted the resources and got an innovative solution. That level of motivation only comes if you empower people and support them. It comes with a sense of ownership. I have always said, "Children are freer in the playground than in the classroom!"

Aaron Shaw, chief technology officer, called these "small science projects", which gave the company an edge in the market: "As a company we do not invent big things; our people increase the value of technology by small practical innovations." Singh believed that it was the small innovations in all aspects of the business that ended up building a strong innovation culture. As a result, no processes or working methods were ever considered untouchable, and everyone was encouraged to suggest changes to the way tasks were carried out.

Enhancing productivity through process redesign

Growth in the media industry was costly and capital intensive. Rather than working only to reduce costs, Singh believed in increasing productivity, which meant increasing efficiency and thus reducing cost per unit. Improvement through innovation was a continuous process and only happened if every department took baby steps, every single day. All aspects of work processes and methods were looked at. The period between 2009 and 2012 had been a period of continuous change in terms of both hardware and software. This shift was particularly challenging for feed playout, channel monitoring, programme scheduling, and content management. In addition, employees all came with their preferred individual processes. With a top team overseeing each function, Encompass was able to ensure that each and every module was looked at and redesigned to match the needs of the individual teams. This process of redesign created efficiencies and a feeling of ownership around these solutions.

Other innovations came from simple things like changing the physical layout of the offices, as was the case with the space dedicated to monitoring channels. An operator monitored six channels, checking image and sound quality as the content was streamed. Initially, work areas (called pods) were divided by high partition walls that isolated each individual from the sound in the next pod. But these operators demonstrated that sound monitoring could be done through the process of automation, and any sound from a neighbouring pod was only a minor disturbance.

An insight that Singh had gleaned from his first-hand interaction with staff was that greater gains could be achieved by tearing the partitions down between the pods and providing the operators with the technological and automation tools necessary to monitor an increased number of channels (raising the number of channels from six to ten per operator) thus making the job more interesting, while reducing cost per channel. Singh explained:

The cost for monitoring 10 channels is a fixed one, but you could choose between having two people monitoring five channels each, or you could tear down the walls and give people the tools to monitor all 10 channels at once. So we sat down with the operations staff, discussed its feasibility and asked for their suggestions on how to do it.

In a similar case, Encompass' Singapore facility had to go through a power upgrade. But it was impossible to simply turn off the power of the entire building and connect a new power system. Singh and his team had consulted all the best power engineers to find a solution, but unfortunately, without success. Instead, Encompass' in-house team devised a practical solution. It proposed that the upgrade be done in three phases, by dividing the entire facility into three zones. It meant that the process would take longer, but it saved the company thousands of dollars. Each rack was migrated one by one, ensuring that each piece of equipment was always supported by two sources of power, thus eliminating the risk of any downtime due to power failure.

[4] Business Times Singapore, Overcoming that fear of making mistakes, 9 June 2012
[5] Business Times Singapore, Overcoming that fear of making mistakes, 9 June 2012.

Promoting a culture of collaboration

Other signs of innovation at Encompass were linked to how different departments worked together. In the beginning, employees were organised in a matrix, focusing only on their specific jobs, and often reporting to different heads. Singh changed this, ensuring that all employees knew what others were doing and were able to replace one another.

Lin explained:

In big organisations, the information flow is very slow. For example, finance only finds out about a sale once it is done. Previously, there were silos and people reported to a functional boss. This meant no one worried about the impact on another department or thought about the work of another department in the company. Now they work across departments. Deepak would involve all of us from the start of any project. We are involved in the decision making process. For new sales, finance works along with engineering and sales from the prospect phase to the conclusion of the contract. For any innovative improvement project, the top team gets involved from the beginning. So I from finance can understand what is coming. We need to sign off together. It is shared responsibility. People work very closely across departments. There are no silos. We don't sit on stuff, we are very fast. You can't afford to be slow in the media industry.

Sharma concurred:

As much as my card says sales and marketing, I am also responsible for content management. We sit down with the customer as a team and come up with the most cost-effective solution without compromise on the quality of the transmission. Our collaborative team work has been a winning unique selling point for us. Our overlapping functions help us to think innovatively and come up with out of the box solutions and our volumes drive the costs effectively thereby benefiting the customer.

Shaw added:

We also push this collaborative approach down into the organisation. For example, I get the technical and operations management team together every week to review the projects and issues and to make sure that they are in sync in terms of what needs to be delivered. I'm mostly a guiding hand and rarely have to take control. For the most part they work out a solution for what needs to be done and how to best achieve it and in doing so take on a sense of shared ownership in a way that they would not for "orders from above". They are more motivated to achieve goals that they have helped to set and take on a pride of ownership that extends that motivation into the future.

This strong collaborative culture further supported innovation. Singh explained:

I can go to any team now and say, "I know this has never been done before, it might be tough or even impossible, but the customer needs it and if we can find a way to deliver this we will definitely have a winning edge." And immediately, people will start thinking of ways to make it happen. This collective attitude of "we will innovate" to make it happen is our winning edge in the market. Typically it's the resistance from the shop floor that kills even the best new technology. You need to make sure everyone is involved in the innovation. Instead of having management deciding, we take it from the ground up... Most people don't know how innovative they can be. But if you ask your employees, they often give you the simple innovative solutions. They know what it takes to make their own work more effective and all you need to do is to give them the confidence and tools to make it happen.

One such example of innovation was the launch of a 'Localised Advertisement Insertion' feature in programmes on TV. Historically, advertisement campaigns were global and then gradually went regional. But the real challenge was the need to localise them for smaller markets. Typically, localised advertisements were carried in print media.

Encompass' idea was to innovate using current technology and to turn paper ads into TV ads, so that local viewers would see advertisements that were tailored specifically to where they lived. This would create a completely new market. Encompass was the first company to propose the service, and the solution had been "invented" during an informal discussion with the engineering team on the shop floor. The team thought it might be a good idea and had an innovative solution that was entirely automated, and therefore relatively inexpensive. This solution was then proposed to a number of prospective customers and became an immediate success.

Invest in technology

Singh believed Encompass needed to stay ahead when it came to technical innovation. The company had invested over US$10 million in the Singapore facilities over the two years leading to 2012, generating a marked increase in the productivity of employees, and allowing the company to effectively compete in the Asian market. The investments had also made Encompass one of the largest digitised content storehouses in the region.

At first the workforce, who feared that jobs might be at stake, resisted any automation process. But at Encompass Singapore, the top team made it clear to employees that automation would increase efficiency and fuel growth, insisting that this was not a cost reduction exercise but a growth strategy made possible through innovation and efficiency. Singh noted:

We grew from 27 channels to 100 channels while adding only 10 people to our existing 140. The strategy is to give people the tools to manage the growth rather than just add headcount.

With greater efficiency and higher quality output, Encompass had achieved dramatic growth. When people are not afraid of suddenly becoming redundant, they adopt the change willingly.

Creating a culture that enables innovation

Singh intended to grow staff from 140 to 175 by the end of 2016. But more importantly, he wanted to ensure that his staff were motivated and enjoyed their work. He believed in creating a positive workplace:

An employee who loves to come to the office will be more productive than someone who says, "I have to go to the office today because I have to pay my mortgage"… People should be proud of coming here. And my gauge of that is when kids can tell their friends, "That is where my mother or father works".

Singh felt that it was important to treat employees well and provide them with the necessary training and tools needed to do their job efficiently and more productively. He launched initiatives that included booking a cinema for a movie night with staff and family, showing children of employees how TV content was produced, and setting up a recreation room where staff could play table tennis and Futsal, connect, and relax at the cafeteria.

Singh wanted employees to feel they were part of a nurturing environment that tolerated mistakes.

An open and conducive culture will propagate creativity, bravery and trust among employees. Just like how my bosses in my early years had always encouraged and nurtured me to dispel doubts and embrace my fear of making mistakes, business leaders should also allow their employees to take a wrong turn without the fear of being penalised.

I am open to people making mistakes in the company as long as they learn from them. I make it a point to regularly discuss with my employees their new ideas and vision for the company. All ideas, small or big, are appreciated and looked into.

At Encompass, we do not encourage the "knowledge is power so I retain it" syndrome. Employees know that they should share their learning and skills across departments. I have found that better communication among employees makes them look forward to coming to work and contributing, increasing productivity. The outcome? A happy, nurturing and conducive workplace.[5]

His team concurred. Sharma added:

Deepak gets personally involved in creating the environment. Operationally he leaves the decisions to the team. But when it becomes critical he steps in and adds value keeping the sensitivities in mind. He has a true open door policy. And if there is an issue, he will call us in and ask us for an opinion. We always come out of his meetings with a clear understanding and an agreement on what needs to be done. We really work closely and well together.

This being said, Singh and his team were clear in their message to staff: the company was growing and everyone needed to work outside their comfort zone. Singh and Shaw led an initiative wherein they formally asked each employee what job they wanted to do. Some employees had been in the same job for a long time, and were asked whether they wanted to try something different. Some seized the opportunity and took on a new role, while others tried different roles and elected to go back to their first job. The latter were not penalised. This initiative had encouraged the staff to try new roles and grab new opportunities. The constant drive to innovate permeated the culture of the company. Sharma explained:

There has been a shift in thought process: people even at the lowest levels of the organisation think, "We can innovate and we don't need to do everything ourselves. Can we do this through automation or do we have to do it manually?" As soon as they think about this first question, everyone starts thinking about how to improve things.

If a competitor recruited us, we could take our leadership and process oriented qualities there, but if I don't have a team that is synergised I won't be able to make a difference there. So a synergized team, right from the top to the supervisor at the shop floor thinking along the same lines, makes the difference.

The team believed that the way the company thought and was organised would enable significant growth over the coming years. Shaw added:

We do our cookie cutting very efficiently through innovation. Right now, our infrastructure costs are stabilised because we don't have to invest for each new client. Economies of scale come in with growth. Only labour is expensive for us now.

But above and beyond economies of scale, and process improvements, it was the company's ability to capitalise on opportunities – a sign of its innovative thinking – that would prove critical to its growth. One stark example resulted from the aftermath of the traumatic events of the Japanese tsunami and Thai floods of 2011. Following these disasters, the production of tapes in two of the most critical markets came to a complete standstill. And it was the employees on the shop floor at Encompass that picked up on this trend: customers were calling them to ask them whether they might have old tapes which they could borrow and then return.

Fortunately, Encompass was already leading the way in digitising content, and when their clients were compelled to send content across in digital form over the fibre network, Encompass was ready.

Conclusion

As Sharma stated:

Our competitors did not see the potential for growth. They did not see the potential in the Asian market. They did not think this business had such a huge scope. We've given them food for thought. So now, we are a role model. We are ahead of the curve and that feels good. At every stage we did small things differently. So it wasn't about making huge changes but small continuous improvements.

Singh was proud of the culture the team had built, and he had big ambitions for the company: "China is the manufacturing warehouse of the world because different companies can use the same factory to produce goods. Similarly, India is the back-end office of the world. My ambition is to make Singapore and our Loyang facility the centre for digital media."[6] While he aimed to grow the company's customer base by 20 percent year on year, he was mindful that neighbouring countries would be catching up, and that Encompass' innovation culture was both a liability and a threat:

The day you stop innovating and improving, people will surpass you within 12-18 months because you are not creating any IP. It's a bit like being on a bicycle: if you stop, you fall over. Which means you can never stop – you need to develop and maintain an innovation culture.

[6] Business Times Singapore, Overcoming that fear of making mistakes, June 9, 2012

EXHIBIT 1:
ENCOMPASS KEY FINANCIALS 2008–2012 (IN US$[7])

	FY 2012 (15 months)*	CY2011	CY2010	CY2009	CY 2008
Revenue	33,201,923	25,776,894	25,295,344	25,973,718	27,966,169
Staff costs	(10,603,084)	(8,379,173)	(7,834,155)	(7,225,768)	(6,991,670)
Depreciation of property, plant and equipment	(6,674,574)	(5,273,479)	(6,374,906)	(6,649,634)	(7,241,002)
Other operating expenses	(11,884,663)	(9,050,655)	(9,680,867)	(7,485,723)	(8,467,795)
Total expenses	(29,162,321)	(22,703,307)	(23,889,928)	(21,361,125)	(22,700,468)
Profit/(loss) before tax	4,039,603	3,073,587	1,405,415	4,612,593	5,265,702
Income tax credit/(expense)	(599,564)	(493,232)	96,197	(745,130)	(994,776)
Profit/(loss) for the year	3,440,039	2,580,355	1,501,612	3,867,463	4,270,926
Percent to revenue	10	10	6	15	15

Source: Encompass, Company data.

[7] US$1= SG$1.24 as at February 12, 2013.

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