



BARAKAT BUNDLE

“Make your baby, a Barakat Baby”

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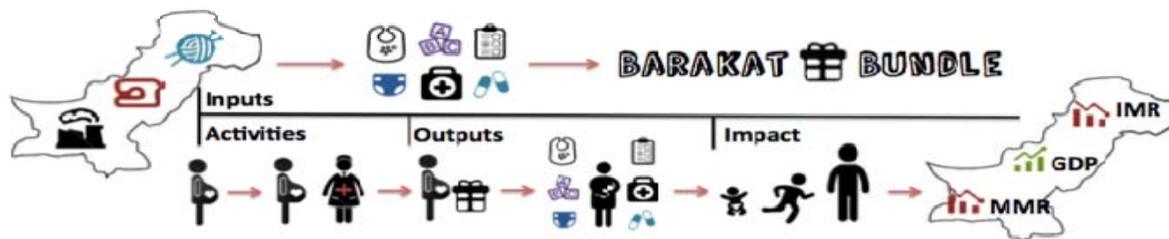
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Executive Summary

PROBLEM: Every year almost **5 million infants die**; more than a third of these deaths occur in South Asia. Almost **300 thousand mothers die annually**, about one quarter in South Asia. Maternal and newborn mortality costs **\$15 billion in lost productivity** globally each year. Most of these deaths are **preventable** through relatively inexpensive public health interventions. Issues of **affordability, access, and education** prevent mothers and infants from getting basic care; and prevent countries from achieving untapped sources of economic growth.

SOLUTION: The Finnish baby box is a social welfare program in Finland credited with helping achieve reductions in infant mortality from 65 deaths per 1,000 live births in 1938 to 2 in 2013. **Barakat Bundle is an adaptation of the Finnish baby box specifically designed for South Asian culture and context.** It doubles as a bathtub and includes **newborn essentials** (e.g. clothing, blanket, nappies), **context-specific items** (e.g. oral rehydration salts, vitamin A supplements, condoms), and **parental education** pamphlets (e.g. birth spacing, breastfeeding, hygiene). All items are **locally sourced** to support economic growth and foster a sense of ownership. Receipt is **conditional upon attending prenatal checkups** to ensure maternal care and precaution. It is **affordable** (free for poor expectant mothers), **accessible** (delivered to households), and **educational** (includes information for parents).

THEORY OF CHANGE: Using locally sourced materials, we create Barakat Bundles that incentivize expectant mothers to attend prenatal care and receive their own bundle containing items that support healthier children, healthier mothers, and more productive economies in South Asia.



COMPETITION: There are **no direct competitors** to Barakat Bundle in the South Asian market. Key indirect competitors include other individual baby item retailers as well as the following unique companies:

- **Maternity Grants Package** (Finland), **Thula Baba Box** (South Africa), **One Zambia Baby Box Co.** (Zambia), **Sweet Dreams Baby Bundles** (Indiana): Similar concepts customized for different regions, no plans to expand to South Asia
- **The Baby Box co:** For-profit online retailers of customizable newborn essential gift boxes primarily based in the US

STRATEGIC PARTNERS:

Operational Partner: Barakat Bundle has established a relationship with the Midwifery Association of Pakistan (MAP), a national network of midwives involved in improving maternal and child health outcomes. MAP will ensure sufficient healthcare capacity and assist in distribution of Barakat Bundles.

Corporate Product Partners: Partnerships with Johnson & Johnson and Mothercare will help offset the cost of producing Barakat Bundle by either providing some subsidized items for inclusion or advertising on product materials.

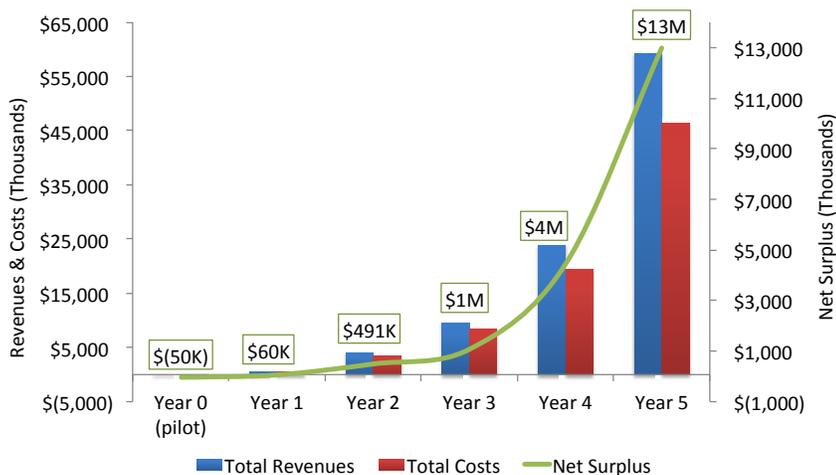
Local Product Partners: Vocational training centers for women such as Sughar Empowerment Society and Shining Light International will produce items such as blankets for inclusion in Barakat Bundles.

PILOT PLANS & SCALE: Barakat Bundle and MAP will pilot in the Gilgit-Baltistan territory of Pakistan. Barakat Bundle will accompany Dr. Rafat Jan, President of MAP, on International Day of the Midwife activities in May 2015 to conduct focus groups with key stakeholders to understand demand, infant care status quo, health services utilization, and existing

needs. Subsequently, an iterative product development process will refine Barakat Bundle into a package of items that are specifically tailored to South Asian mothers and infants. Following product development, Barakat Bundle in collaboration with MAP, will launch in Gilgit-Baltistan to generate proof-of-concept and enter into government negotiations to support expansion across Pakistan and eventually South Asia.

MARKET ANALYSIS: South Asia spends more than \$91 billion on health service provision, family planning activities, nutrition activities, and emergency health each year. Developing countries spend **\$9 billion on maternal and newborn health care**, of which more than two-thirds are put towards delivery, newborn, and postpartum care and just under one-third is put towards prenatal care. South Asia alone receives \$860 million in external resources specifically towards maternal and child health. The South Asian market for **baby and child-specific products is largely driven by India and Pakistan with \$140 million and \$24 million in sales**, respectively. Consumer expenditures are experiencing strong value and volume growth due to increasing birth rates, rapid urbanization, and parental awareness.

FINANCIALS: Barakat Bundle anticipates generating revenue through **1) Government sponsorship** driven by the existing government commitment to reduce infant and maternal mortality, **2) Corporate sponsorship** taking advantage of the rapid growth of the baby products industry, and **3) Earned revenues** estimated to begin in 2018 with the sale of bundles to families who can afford them. Government and corporate sponsorships will offset the costs of providing bundles to impoverished mothers free of charge, while earned revenue will help subsidize overall program costs by funding marketing and staff salaries. Key costs include product provision, distribution, marketing and staff compensation.



Key Metrics

- Births in poverty: 650K (89% served by 2020)
- Births above poverty: 4.7M (63% served by 2020)
- Market price: \$12 (vs. \$140 in comparable programs)
- Corporate sponsorship: 30%
- Government sponsorship: 70%

SOCIAL VALUE CREATION: Barakat Bundle is expected to **avert 255 thousand infant deaths and 3 thousand maternal deaths**, leading to **productivity gains of \$1.2 billion**. The social return on investment for Barakat Bundle is expected to be almost ten times net surplus in Year 5.

MANAGEMENT TEAM: **Karima Ladhani** is an HSPH doctoral student with 5+ years of global health experience in maternal and child health. **Shane Robinson** is an HKS/GSB student who worked 8+ years as an entrepreneur and investor. **Dr. Jyoti Ramakrishna** is an HSPH student and practicing pediatrician for 26+ years. **Mitul Daiyan** is an HDS alumna with public and private sector marketing and communications experience. **Nayab Ahmad** is a Harvard College student with 3+ years of experience in research and advocacy work in the healthcare industry.

1. Introduction

*“It is inexcusable that in the 21st century
motherhood remains so dangerous for so many.”*

- Dr. Babatunde Osotimehin, UNFPA Executive Director

Pregnancy is the promise of a new life, a time when mothers carry hope and a sense of excitement. The last thing a mother needs is the weight of tension and worry for the life of her child and her own wellbeing. But such



is the reality for women like Shefali who live in remote regions of South Asia. Shefali carries the burden of grief. “I have given birth to six children, all here in my home. Three of these children died within a week of birth. They died because of a lack of treatment.” And Shefali is not alone. “Whenever a child is born and then dies, we’re overwhelmed with grief. It’s terrible. I am not the only one here who has lost children – there are many other mothers like me.”

Shefali and her husband know that proper care could have saved their children. Too many children die from preventable causes. Too many expecting families cannot access healthcare services, they cannot afford preventive or curative care, and do not have the information to provide simple life saving measures at home.

Barakat Bundle is not reinventing the wheel. We work with existing solutions to address issues of access, affordability, and education to give every child in South Asia an equal start in life.

Barakat means blessing.

Babies are a blessing to their parents.

Barakat Bundle is a blessing for their parents.

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1.1 An Unacceptable Situation

Every year almost 5 million infants die, more than one-third of these deaths occur in South Asia,¹ and almost 300 thousand mothers die, about one quarter in South Asia.² Maternal and newborn mortality leads to \$15 billion in lost productivity globally each year.³

Why are these deaths occurring? Over 60% of births in rural areas still occur at home and up to 75% of poor mothers do not seek prenatal care.⁴ Many parents cannot afford to take long distance and often-expensive treks to healthcare facilities.⁵ Few understand the benefits of why prenatal visits, immunizations, and vitamins are essential for ensuring the health of mother and baby.⁶

What can we do? Over 80% of maternal and infant deaths are preventable through relatively inexpensive public health interventions around the time of birth, such as essential newborn care, early and exclusive breastfeeding, skilled birth attendance, clean water, and sanitation.⁷ It is no secret why infant mortality is high in many countries around the world. It is no secret how to reduce it either. However, issues of affordability, access, and education persist as barriers between the problem and the solution thus preventing mothers from providing the best care for their infants and themselves; and preventing South Asia from achieving untapped sources of economic growth.

1.2 The Story of the Finnish Baby Box

Barakat Bundle is an adaptation of the Finnish “baby box,” a maternity grants program instituted by the Finnish government in 1938 due to concerns over the country’s high infant mortality. At the time, Finland’s infant mortality rate was 65 deaths per 1,000 live births. This is higher than the average infant mortality rate currently seen in South Asia (37 deaths per 1,000 live births). The program has been credited as a major contributor to Finland’s decline in infant mortality which now stands at 2 deaths per 1,000 live births, one of the lowest in the world.

The maternity grant is available as a package, commonly known as the Finnish baby box, or in cash (\$140) based on the mother’s preference. The package doubles as a crib and includes a variety of newborn essentials. It is contingent on the mother attending prenatal care.⁸ Nearly all first-time mothers opt for the package and only one third of all expecting mothers accept the cash benefit.



“Of course, I chose to receive the package when I was expecting. And even though their mother was the President, my children got the package for all five of my grandchildren.”

-Tarja Halonen, Former President of Finland (2001 – 2012)

1.3 Barakat Bundle: An Innovative Solution

Barakat Bundle is an adaptation of the Finnish baby box specifically designed for South Asian needs, culture, and context. Contents of Barakat Bundle will include:

Newborn essentials such as clothes, bibs, blankets, nappies, baby wipes, picture books, and a thermometer. The bundle itself will double as a bathtub to encourage hygiene.

Context-specific items such as oral rehydration salts, vitamin A supplementation, baby oil, and family planning items.

Parental information on topics such as birth spacing, early and exclusive breastfeeding, the importance of stimulation and play, and hygiene. These will be pictorial in nature to overcome low levels of female literacy in rural areas.

Locally sourced items to support local economic growth – ensuring those who benefit from the product have a vested interest in its success.

Receipt of the Bundle will be conditional upon mothers attending prenatal care. Key services provided include tetanus toxoid vaccinations, nutritional advice and vitamin/folic acid supplements, and identification of high-risk pregnancies to prevent or plan for preterm births. A recent and successful government program in Khyber Pakhtunkhwa that offers financial payments to mothers to attend prenatal care appointments provides evidence that with the right incentives, awareness and attendance can be improved.⁹

2. Operational Analysis

2.1 Value Proposition



Value to Mothers

We provide mothers with affordable, accessible, and educational context-specific newborn essentials to provide their babies with a healthy start to life.

Value to Society

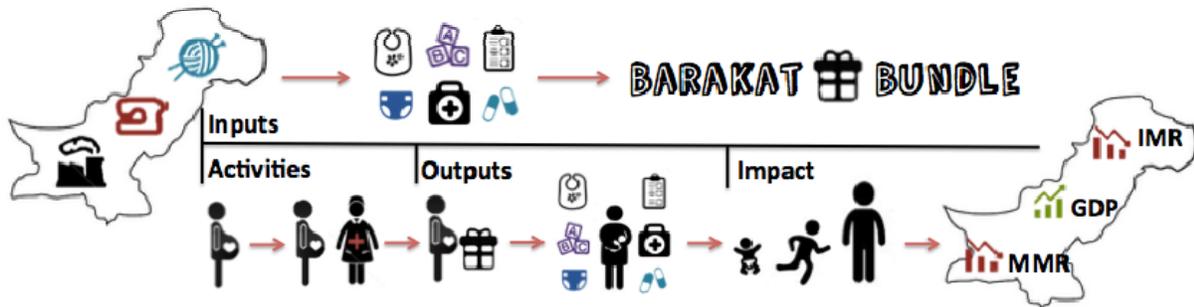
We provide societies with a mechanism to reduce maternal and infant mortality leading to healthier infants, healthier mothers, and more productive economies.

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Value to Government

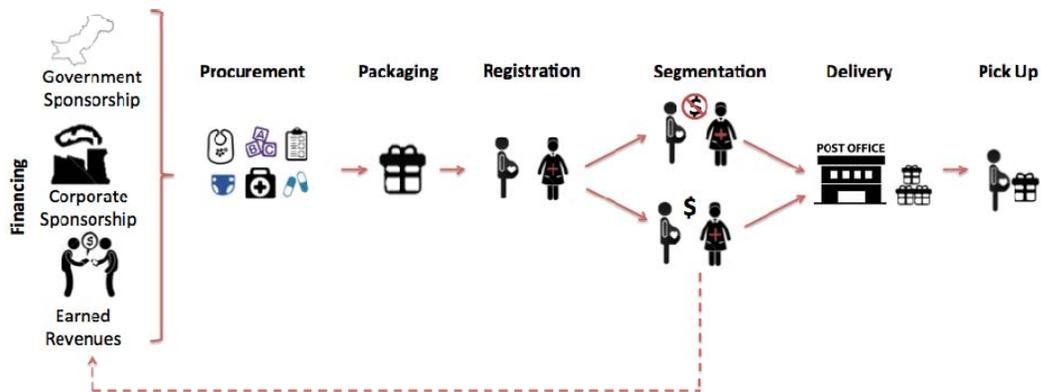
National governments across South Asia signed on to the Millennium Development Goals, agreeing to reduce their infant and maternal mortality rates by two-thirds and three-quarters, respectively, between 1999 and 2015. As of 2014, the region has not succeeded in this pledge. We provide governments with a cost-effective approach to facilitate their progress towards improving child health and achieving their MDG targets.

2.2 Theory of Change



Using locally sourced materials, we create Barakat Bundles that incentivize expectant mothers to attend prenatal care and provide items that support healthier children, healthier mothers, and more productive economies in South Asia.

2.3 Business Model



Financing

Barakat Bundle will be financed by three funding streams: 1) Government sponsorship, 2) Corporate sponsorship, and 3) Earned revenues. The latter two will be used to subsidize the costs incurred by the government. The key uses of these funds will be procurement, marketing, and staffing.

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Procurement

Procurement will involve securing items required for the Barakat Bundle as well as printing costs for accompanying informational pamphlets. Casual items such as knit hats and blankets will be sourced from local vocational training centers where possible to encourage local ownership and cultural relevance. Items that require regulatory oversight will be sourced from corporate partners to ensure maximal safety and effectiveness.

Packaging

Barakat Bundle will acquire a hub facility in each country it operates in to facilitate packaging and other key functions. The hub facility will be the in-country brick-and-mortar presence of Barakat Bundle. Procured items will be shipped to and stored at the hub facility before being packed into Barakat Bundles. The volume of bulk orders and the throughput of items into Barakat Bundles will be critical to determining the size of the facility required.

Registration

Expectant mothers who attend a prenatal care appointment with a health worker will be eligible to register for a Barakat Bundle. It is important to note that prenatal care does not necessarily need to occur at a health center. Given that access is a key barrier to healthcare that disproportionately affects those with the greatest need, conditioning receipt of Barakat Bundle on prenatal care in a healthcare facility could have the unintended consequence of widening inequality in maternal and child health outcomes. Thus, prenatal care appointments conducted by community health workers and midwives are encouraged so as to ensure widespread access to Barakat Bundles that is not contingent on access to healthcare facilities.

Health workers will use their mobile phones to send an SMS record of each prenatal care attendee, her due date, and most convenient post office pick up location to a centralized registration database hosted at the hub facility.

Segmentation

Health workers will use existing national poverty identification systems to determine whether mothers receive free or paid Barakat Bundles. Mothers who fall below the national poverty line will be eligible for free Barakat Bundles while those above it will purchase them for a nominal fee. Health workers will act as intermediary agents to financial transactions between mothers and the national hub using a mobile money application such as Telenor Easypaisa.

Delivery

The registration database will sort mothers by due date and Barakat Bundles will be shipped from the hub facility to their local post offices. The timing of delivery is critical as it must occur late enough to ensure that the pregnancy is viable (24 weeks) and early enough to allow adequate time for preparation before the baby's delivery (39 weeks). As such, we aim for delivery approximately one month before the reported due date but due to inaccurate gestational aging methods we anticipate some variability in the actual pregnancy stage at which this delivery occurs.

Pick Up

Upon delivery, mothers will be able to pick up their Barakat Bundle from their local post office in time to prepare for their baby's arrival. Given that national postal services are the most common source of domestic remittances in South Asian countries, they have high penetration in rural areas and existing channels between such areas and urban centers. Thus, local post offices are convenient and familiar locations that capitalize on existing infrastructure to streamline the Barakat Bundle supply chain process. Furthermore, there is added savings potential in using government infrastructure to satisfy government contracts.

2.4 Measuring Results

Direct Impact

The ultimate success of Barakat Bundle is a reduction in preventable infant and maternal deaths in South Asia. To optimize our effectiveness at achieving these goals, we plan to track a series of metrics to assess the implementation of the program, the program's ability to encourage health-seeking behaviors, and the effect of such behaviors on population health. Detailed metrics are outlined in Section 8.1. Programmatic measures will be obtained from Barakat Bundle operating records on a quarterly basis to assess potential seasonal variations due to harvests, monsoons, religious holidays, etc. Health status measures will be obtained from existing government records at baseline and annually thereafter. Self-reported changes in health knowledge (e.g. importance of birth spacing) and healthy practices (e.g. hand washing) will be collected at baseline and regular intervals throughout the pilot phase through focus groups and surveys.

Indirect Impact

While there are many indirect impacts that come from improved infant and maternal health, the following are of particular importance:

- *Under-five mortality*: This will likely decrease due to the large contribution of infant mortality to under-five mortality. However, there could be an additional impact of healthy practices relating to hygiene and sanitation on the health of children born before the implementation of Barakat Bundle.
- *Fertility*: Adoption of birth spacing and family planning practices could result in a decrease in fertility rates. Additionally, infant mortality is considered a leading indicator of fertility since family expectations of infant deaths affect their childbearing efforts.
- *Life expectancy*: Improved health outcomes earlier in life, particularly with respect to malnourishment, have lasting effects on long term health and life expectancy.
- *Gross Development Product*: Healthier infants and healthier mothers promote economic growth because they are or will be more productive members of the economy and are less likely to incur healthcare costs.

3. Market Analysis

Government-Subsidized Market

South Asia spends more than \$91 billion on the provision of health services, family planning activities, nutrition activities, and emergency health each year. The major contributors to this spending are India (\$76 billion), Pakistan (\$7 billion), and Bangladesh (\$4 billion). The majority of these expenditures are private in nature but approximately one-third (\$28 billion) come from recurrent and capital spending from central and local government budgets. External resources for health that originate from international organizations, bilateral agreements, or foreign NGOs comprise over \$2 billion of South Asian health spending. With regards to maternal and child health, developing countries spend \$9 billion each year, of which more than two-thirds are put towards delivery, newborn, and postpartum care and just under one-third is put towards prenatal care. Furthermore, South Asia receives \$860 million in external resources for health specifically devoted towards maternal and child health.

Paid Market

The South Asian market for baby and child-specific products is largely driven by India and Pakistan with \$140 million and \$24 million in sales, respectively. Consumer expenditures for baby and child-specific products have been experiencing strong value and volume growth due to increasing birth rates, rapid urbanization, and parental awareness. In India, increasing financial independence of working mothers in urban cities contributed to 13% current value growth in 2013 and is expected to motivate gradual shifts to branded products from traditional alternatives. In Pakistan, despite increasing prices fueled by electricity tariffs and tax increases for manufacturers, baby and child-specific products experienced 19% current value growth in 2013 and the market is expected to continue to grow through 2018. The industry is largely driven by middle- and high-income urban families, as awareness of baby and child-specific products is much lower in rural areas.

Beneficiaries

There are over 35 million live births in South Asia each year, a number that continues to increase as the population grows. The majority of these births occur in India (25 million), Pakistan (5 million), Bangladesh (3 million), and Afghanistan (1 million). Across the region, an average of 21% of the population live below national poverty lines in their respective countries. Given the Year 0 price per Barakat Bundle of \$12, this creates a total addressable free market of \$95 million and total addressable paid market of \$341 million.

3.1 Industry Analysis

Given the size of the maternal and child health burden in South Asia, there are a number of governmental and non-governmental programs working on various aspects of the issue. Some examples include the Kangaroo Mother Care Project to increase use of the technique on low birth weight babies (BRAC, Population Council); the Multi-Micronutrient Supplementation

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Project to improve prenatal micronutrient supplementation (MIRA, Institute of Child Health London); and more generic programs like safe home birth kits and neonatal resuscitation.¹⁰

There are several key factors that differentiate Barakat Bundle from these industry programs. Existing programs divert funds to different issues in parallel whereas Barakat Bundle is a comprehensive, integrated solution at a similar price point. Existing programs rely on government and/or external donor funding exclusively. Barakat Bundle is the only program with a financing model that takes advantage of earned revenues to cross-subsidize program costs and thus reduce costs to governments over the long run. In addition, Barakat Bundle integrates care of mothers and newborns and works to empower mothers at home to minimize reliance on weak health care systems with limited capacity.

3.2 Competitive Analysis

Direct Competitors

Currently, there are no direct competitors to the Barakat Bundle in the South Asian market.

Indirect Competitors

Indirect competitors include for-profit gift box retailers and non-profit bundled package distributors. The for-profit gift box retailers, such as The Baby Box Company, operate online, provide customizable baby gift boxes for purchase, and are concentrated in high income countries. The non-profit bundled package distributors are similar to Barakat Bundle in concept but differ in terms of included items and the markets in which they operate.

In Finland, there is the original Baby Box, produced by Kela, an independent social security organization that is supervised by the Parliament in Finland. It provides the Baby Box to expectant mothers who are covered under Finnish social security. There is no indication that they are interested in expanding to South Asia.

In the aftermath of a BBC news story published in June 2013,¹¹ the Finnish Baby Box has become a global phenomenon. It has been read by over 10 million people and set a record for the most shared story in BBC.com's 17-year history. The popularity of the story has led to a number of similar programs arising in different markets. South Africa, Zambia, and the state of Indiana have all introduced programs similar to the Finnish Baby Box to counter high rates of infant mortality in their respective geographic areas.

The South African Thula Baba Box describes itself as a survival kit for low-income expecting mothers that contains essential items for the South African mother and child. It is currently running a pilot in partnership with the Western Cape Government Department of Health and the Stellenbosch University Department of Economics. The project is funded by the J-PAL Africa Incubation Fund and Broadreach Healthcare and aims to reach mothers across South Africa by 2020.¹² Similarly, in Zambia, the Churches Health Association of Zambia has partnered with NGO One Zambia to distribute the Zambia Baby Box, filled with basic newborn essentials.¹³ In Indiana, the Greene County General Hospital Foundation recently received funding to distribute Sweet

Dreams Baby Bundles to combat the state's relatively high infant mortality rate within the United States.¹⁴

Replacement Competitors

The greatest competitive threat to Barakat Bundle comes from unbundled items. In the government-subsidized market, this refers to unbundled, government funded, maternal and child health programs for South Asia. In the paid market, this refers to individual item purchases.

3.3 Competitive Edge

Barakat Bundle is the only provider of bundled baby care products for maternal and child health specifically designed for the South Asian market. We offer free or reduced cost items for every mother and infant anywhere in South Asia.

Key competitive advantages include:

- High volume operations, locally sourced vendors, and corporate sponsorships to maintain low price point
- All-in-one cost-effective strategy to attract government contracts
- Locally sourced items to create local ownership and support from families
- Partnership with existing on-the-ground organizations to facilitate operations, government contracts, and tailor product to actual demand and needs

3.4 Risk Analysis

Operational

There is risk in identifying the poor using national poverty lines. National poverty lines do not necessarily capture all impoverished people which may prevent mothers who live in poverty above the national poverty line from receiving the Barakat Bundle for free. However, a key strength of the Barakat Bundle is that it builds on existing government infrastructure using government funding as a key revenue source. To address the risk, it is logical to use the government's own metrics as a starting point to encourage government contracting and apply existing poverty identification systems. The paid box will still be deeply discounted and benefit from corporate subsidies and economies of scale in purchasing.

There is risk around the poor infrastructure and roads often found around the rural village communities in regions of Pakistan and the rest of South Asia. We will mitigate this risk by shipping Barakat Bundles using existing national postal services instead of creating our own delivery channels. In this way, we reduce our exposure to and reliance on poor infrastructure and any associated costs.

Security

There is a risk of militant groups targeting healthcare workers. We will mitigate this risk by reducing visibility of foreign presence and having registrants pick up their Barakat Bundles from post offices.

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Terrorism poses a significant security risk, particularly given that attacks can occur in crowded and popular urban centers and marketplaces. There is an even greater risk posed to foreigners who may be targeted for kidnap, ransom and hostage situations. To mitigate these risks we will minimize travel to these high impact areas and always travel with local hosts. Registering any and all travel with our embassies in Pakistan, monitoring news media and events in country prior to travel and utilizing international emergency services such as international SOS will reduce the potential impact from potential security risks.

Corruption

Corruption is possible amongst the health workers who provide prenatal care and act as agents between mothers and the national hub to facilitate registration and payment, where applicable. Despite using more secure SMS mobile technology to transfer money, there is the possibility of misappropriation of funds. To mitigate this risk, we will strengthen relationships with health workers to encourage local ownership and investment in the program's success. In addition, we will perform consistent and open audits of our funding based on a detailed database of all registered Barakat Bundle recipients and expected distribution of free and paid beneficiaries.

There is the risk of being required to comply with informal payments, particularly with regards to bureaucratic red tape. To mitigate this risk, we will work with local partners to negotiate terms of agreement. By establishing that monetarily non-valuable items exist in the box (including many locally sourced items), we hope to preclude theft or reselling of items in the box. Making the outside of the box decorative for children and using local languages to label the box is critical as well. We do not intend to use USAID, UKAID or other western aid group logos on the box even if we receive partnerships with them as it has been proven to increase targeting due to local angst against these aid organizations.

4. Strategy and Implementation

4.1 Growth Strategy

Barakat Bundle will begin by launching a pilot project in Pakistan to fully understand the context of the situation and customize the product to the needs of local mothers. Barakat Bundle will then scale across Pakistan and subsequently to the rest of South Asia.

Year 0 (Pilot): 2015

The purpose of Year 0 is to pilot Barakat Bundle in the Gilgit-Baltistan territory of Pakistan with our partner, the Midwifery Association of Pakistan (MAP). The Barakat Bundle team will accompany Dr. Rafat Jan, President of MAP, to International Day of the Midwife conferences and promotional activities during May and June 2015. During this time, we will conduct focus groups with mothers, midwives, and other key stakeholders to further understand demand, infant care status quo, health services utilization, and existing disease burden.

Subsequently, an iterative product development process will refine Barakat Bundle into a package of items that is specifically tailored to the needs of South Asian mothers and infants.

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Upon completion of product development, Barakat Bundle in collaboration with MAP, will launch in Gilgit-Baltistan with the distribution of 2,500 free bundles to generate proof-of-concept and enter into government negotiations to support expansion across Pakistan. Marketing strategies for this period will include word of mouth via MAP midwives, focus group participants, and participation in International Day of the Midwife activities.

Years 1-2: 2016-2017

The purpose of Years 1-2 is to start providing Barakat Bundle to impoverished mothers in Pakistan. Years 1-2 will target mostly mothers below the national poverty line with government contracts for expansion. Mothers above the national poverty line will have access to the Barakat Bundles as of Year 2 and this will feed back into earned revenues. Marketing efforts will be primarily through word of mouth, radio service, and pamphlets. There will be an estimated 24% penetration below the poverty line and 5% penetration above the poverty line by the end of Year 2.

Years 3-5: 2018-2020

The purpose of Years 3-5 is to fully implement the paid model for mothers above the national poverty line while continuing to expand the free model for mothers below the national poverty line. Marketing will include word of mouth, radio, pamphlets, and television to further mothers of higher socioeconomic status. Penetration will reach 89% below the poverty line and 63% above the poverty line by the end of Year 5.

Years 6+: 2021 onwards

The purpose of Years 6+ is to expand Barakat Bundle operations to other South Asian countries, with a likely primary focus on India. More focus groups to specialize the contents of the Barakat Bundle, conversations with governments and local businesses, and focused marketing will take place in these regions.

4.2 Strategic Partners

Distribution Partners: *Midwifery Association of Pakistan (MAP), American India Foundation Maternal and Newborn Survival Initiative (MANSI)*

In Pakistan, Barakat Bundle has established a partnership with MAP, a national network of 800 midwives directly involved in reducing maternal and infant mortality. MAP will help ensure streamlined distribution and sufficient healthcare capacity for the provision of prenatal care to accompany Barakat Bundles. This partnership will support a pilot phase in Gilgit-Baltistan state, obtaining government contracts, and expansion across Pakistan in the next five years. In India, Barakat Bundle is building on existing relationships with MANSI, a program that provides villages with a trained community health worker to provide home-based care for pregnant women and newborns. A partnership with MANSI would support eventual entry into the Indian market.

Corporate Funding Partners: Johnson & Johnson, Mothercare

Corporate funding partners will be involved in subsidizing the cost of producing Barakat Bundle either by providing some subsidized items for inclusion or by advertising on product materials. With over 50% market share in Pakistan and 70% in India, Johnson & Johnson is the largest corporate entity in the South Asia baby and child-specific products market and thus the primary target for partnership. Partnering with Barakat Bundle will provide these corporations with an opportunity to create brand awareness and reach an untapped market at the base of the pyramid. In addition, these corporations have expressly indicated a strong commitment towards corporate social responsibility, particularly with regards to global access to their products.

Local Product Partners: Sughar Empowerment Society, Shining Light International

Local product partners are vocational training centers for women that will be compensated for creating casual items such as knit caps or blankets for inclusion in Barakat Bundles. These partners would gain guaranteed high volume of sales from partnering with Barakat Bundle and undoubtedly a sense of pride for being part of Barakat Bundle's mission in their country.

5. Management Summary

5.1 Management Team

Karima Ladhani MPH, is a current Doctor of Science candidate in Global Health at the Harvard T. H. Chan School of Public Health. She currently holds research positions with Brigham and Women's Hospital's Department of Newborn Medicine and the Harvard Ministerial Leadership in Health Forum. She has over 5 years of global health experience with contributions to USAID, Clinton Health Access Initiative, and John Snow, Inc., focusing on strengthening health systems and maternal and child health.



Karima's nontraditional path to public health began by obtaining undergraduate degrees in Mathematics and Business from the University of Waterloo. While spending two years making strides in the private sector, she volunteered at various institutions devoted to improving public health outcomes and found herself driven by public service and interdisciplinary approaches to public health. She finds herself committed to helping mothers and giving every child a fighting chance, with a particular affinity to her roots in South Asia region.

Shane Robinson is currently a joint degree MBA/MPP candidate at the Graduate School of Business at Stanford University and the Harvard Kennedy School of Government, respectively. Shane is a veteran of the United States Marine Corps and brings over 8 years of experience as an entrepreneur and investor. He co-founded and managed companies in the e-commerce, data security and Chinese translation industries, and has worked as an investment professional in the Internet and digital media industry.



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Shane spent much of his professional years being a part of successful startups and playing a role in helping businesses get off the ground. He commits himself to investing in passionate and bright individuals and strives to be an ethical business leader. Growing up in a large family with six siblings coupled with his commitment to give back drives his motivation to give every child an equal start in life.

Jyoti Ramakrishna MD, is currently the Chief of Pediatric Gastroenterology and Nutrition at Tufts Medical Center and an MPH candidate at the Harvard T. H. Chan School of Public Health. Previously, she was an Associate Pediatrician in gastroenterology, nutrition, and global health at Massachusetts General Hospital for Children. She has held professorships at Harvard Medical School, University of Massachusetts Medical School, and University of California Davis. She brings over 26 years of experience working with children and mothers.



Having spent a great deal of her formative years in India, Jyoti came to recognize the privilege in having the resources that the developing world provides. She frequently travels home to India to volunteer her medical expertise to impoverished regions of her country. As a physician, she has seen countless infants die from easily preventable causes. She is drawn to existing solutions that can make the difference between life and death for South Asian mothers.

Nayab Ahmad is a current fourth year AB candidate at Harvard College focusing on Human Evolutionary Biology, Global Health and Health Policy. She concurrently is part of the Leadership Team at Health Leads for Massachusetts General Hospital, an organization that helps patients get access to basic resources like food and housing to improve their health. Previously, she served as a Research Fellow in Barbados for the Harvard Global Health Institute and Research Assistant at Massachusetts General Hospital.



Nayab is not new to the world of maternal and child health. Her dream of pursuing a PhD in health is driven by the one-on-one work that she partakes in while conducting research abroad and domestically. While she was an advocate with Health Leads at Boston Medical Center's OB/GYN clinic, she helped expectant mothers acquire baby supplies and saw how this positively influenced their lives. She understands the detriment of not being heard and wants to be a voice for those in public health who do not have the means to speak out. Nayab's interests are diverse but her Pakistani roots keep her grounded in development efforts.

Mitul Daiyan MTS, is a recent graduate from the Harvard Divinity School where she focused on Religion, Ethics, and Politics. Her experience includes working at The South Asia Institute and Scholastic Achievement Partners, the education-consulting arm of Scholastic, where she honed her extensive marketing and communications background. She is the cofounder of Intellect Tutorial, a service that pairs low-income immigrant children and highly qualified tutors to ensure success in and out of the classroom.



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Mitul was born in Bangladesh and grew up in New York City. During the course of her studies, she began to focus on the extent to which religion and culture play in the education of young girls and women. Her work at the divinity school fostered knowledge of the fact that an empathetic world is built through mindfulness and understanding. She is committed to gender equality across the world and makes an effort to navigate her cultural understanding to make this a reality.

5.2 Advisory Team

Gordon Bloom, MBA: Director and Founder of the Social Entrepreneurship Collaboratory at Harvard Innovation Lab

Dr. Sue Goldie, MD MPH: Director of the Global Health Learning and Education Incubator at Harvard University and Director of the Center for Health Decision Science

President Tarja Halonen, JD: Former Finnish President and Minister of Social Affairs and Health

Amanda Hahnel, MBA: Innovation Manager at Doorways to Dreams (D2D) Fund

Dr. Rafat Jan, PhD MScN: President of the Midwifery Association of Pakistan and Board Member International Confederation of Midwives

5.3 Personnel Plan

National Hub Facility Staff: Responsible for ordering inventory, managing inventory levels, packaging, and shipping Barakat Bundles. His/her job will be to expedite the flow of materials between the Barakat Bundle national hub facility and the local post offices. The number of workers required will increase from 1 in Year 1 to 48 by Year 5.

6. Social Value Creation

Figure 1 outlines the mechanisms by which Barakat Bundle will create social value within South Asian societies. The most direct impact of the program will target infants and mothers. Beyond this however, families will benefit from reduced loss of life, more informed parents, improved happiness, and greater earning potential. The workforce will benefit from increased female labor participation and healthier future

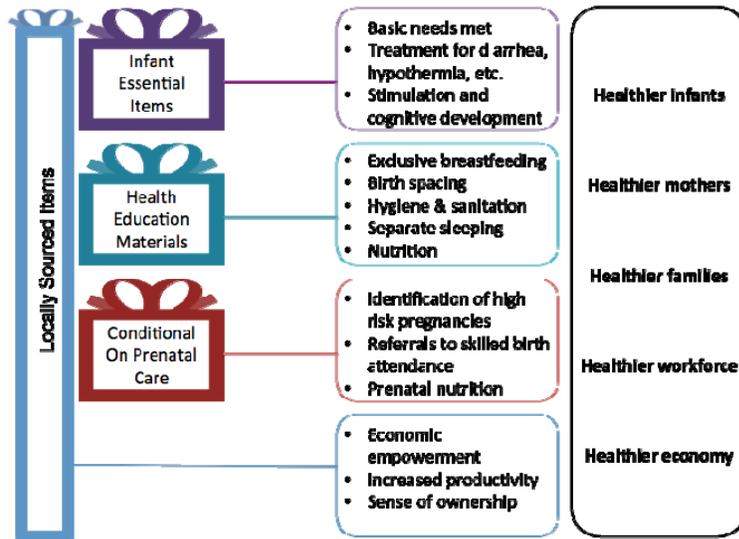


Figure 1: Pathways to Social Value

working age populations who will reap the benefits of reduced infant mortality, improved cognitive development, and higher educational attainment. The economy will benefit from the creation of a steady market for locally sourced items and increased productivity from the larger and more skilled workforce. The cost of implementing Barakat Bundle is far outweighed by revenues from the program and even more so by the social value generated from increased productivity. As shown in Figures 2 & 3, by Year 5 Barakat Bundle is expected to avert 255 thousand infant deaths and 3 thousand maternal deaths, leading to productivity gains of \$1.2 billion. Thus, the social return on investment for Barakat Bundle is expected to be almost ten times net surplus.

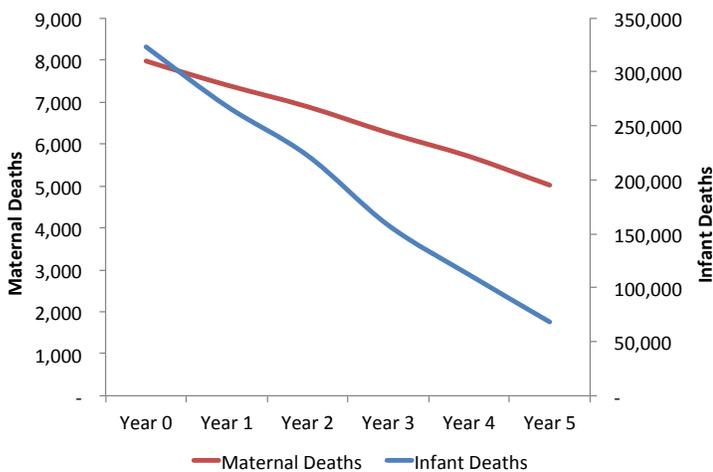


Figure 2: Expected Reductions in Maternal & Infant Mortality

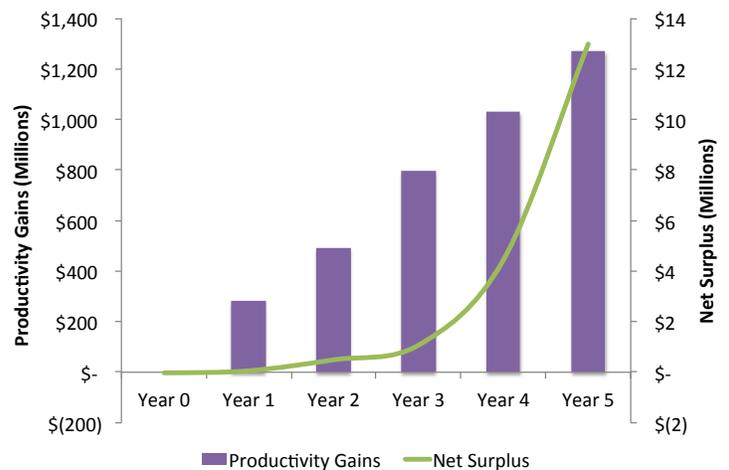


Figure 3: Expected Productivity Gains

7. Financial Plan

7.1 Revenue

Barakat Bundle anticipates generating revenue through three primary activities: 1) Government sponsorships, 2) Corporate sponsorships and 3) Earned revenue. All revenue and cost numbers are in USD.

Government Sponsorships

Government sponsorships represent funding provided through government assistance and will cover costs related only to bundles and their contents. Similar to the state-run program, the Finnish Baby Box, which is 100% government funded, Barakat Bundle will rely on government assistance in the form of grants, subsidies or other means. However, as Barakat Bundle is able to demonstrate commercial viability, the share of financial assistance coming from the government is expected to decrease, with the remainder coming from corporate partnerships.

In Year 1, we expect total government sponsorship revenue to total \$728K, which assumes that Barakat Bundle is able to serve 10% of the 610 thousand expectant mothers living in poverty, and that government sponsorship will cover 100% of bundle costs. This implies that Barakat Bundle will serve approximately 1% of the total market. By the end of Year 5, government sponsorship revenues are projected to reach \$6M, which assumes we will serve 89% of all expectant mothers in poverty, and that government sponsorship will cover 70% of bundle costs. This implies that Barakat Bundle will serve 79% of the total market. As a frame of reference, the Finnish Baby Box serves nearly 100% of its market.

Corporate Sponsorships

Corporate sponsorships represent in kind items for inclusion in Barakat Bundles or cash exchange for advertising space on Barakat Bundles by corporations involved in the baby and child-specific products industry. These revenues are expected to offset bundle costs and minimize costs borne by government sponsorships. Corporate sponsorships are projected to increase from \$266K in Year 2 (10% of box expenses) to \$12M in Year 5 (30% of box expenses).

Earned Revenue

Eventually, Barakat Bundles will become commercially available to those families who can afford to purchase them. Because we will be focused on achieving proof of concept during Year 1, we expect paid revenues to begin the following year. At a selling price of \$12 (as a frame of reference, the Finnish Baby Box is priced at over \$140), we expect 5% of the 4.5M mothers living above the poverty line to purchase the bundle, amounting to \$3M in sales in Year 2. By Year 5, we expect 63% of mothers above the poverty line to purchase Barakat Bundles, amounting to \$41M in earned revenue. The market price of Barakat Bundle represents a 50% retail markup over wholesale costs and is expected to increase each year with inflation of 3%. Full details of Operational Assumptions are outlined in Section 8.2.

Growth Factors

The following factors are anticipated to be the greatest drivers of total revenue:

- Strong government commitment to reduce infant mortality
- Ineffectiveness of existing solutions in the market
- Changing attitudes towards baby care
- Rapid growth of the baby and child-specific products industry

7.2 Expenses

Barakat Bundle will incur costs associated with the following activities: 1) Bundle and materials procurement (see Section 8.3 for itemized costs), 2) Marketing, 3) Staff, and 4) Office rent. The majority of total expenses will be related to the procurement of box materials and office rent, which together represent over 80% of total costs throughout the five-year projection period. Costs are projected to increase each year according to inflation.

7.3 Net Surplus

Despite being cash flow negative in Year 1 (which can be addressed with a short-term loan, government assistance or equity funding) we will reach a net surplus of \$60K by Year 1 and expect to be financially self-sustainable thereafter (Figure 4). This will be driven in part by strict budget adherence, careful planning and our ability to secure long-term government and corporate partners.

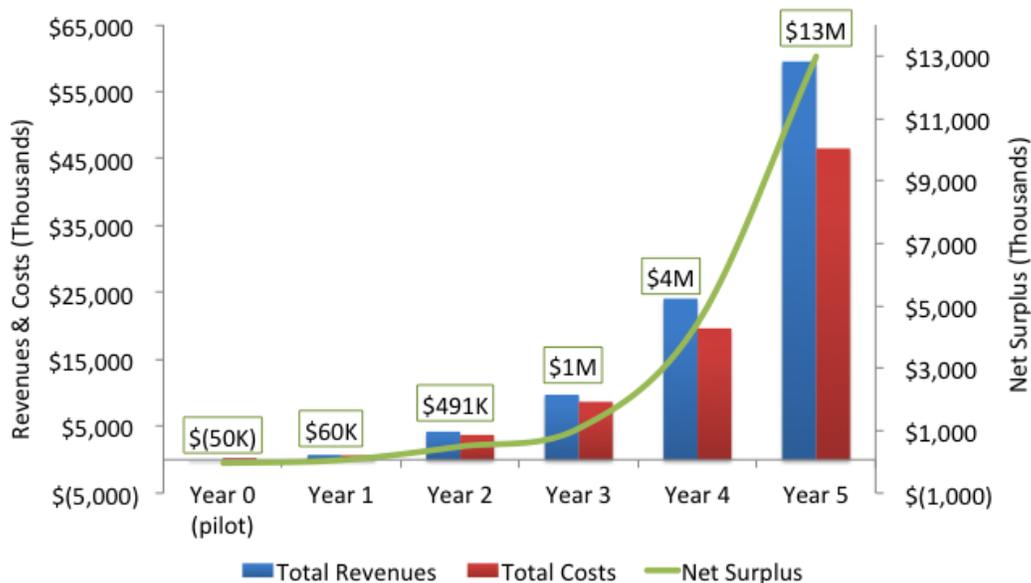


Figure 4: Financial Projections

7.4 Quarterly and Annual Statement of Income

Quarterly and annual income statements can be found in Section 8.4 and 8.5, respectively. The delivery of Barakat Bundle is dependent on birth rates in the municipalities being served. With regards to quarterly projections, more research must be done on the potential seasonality of such births by region to determine how revenues and expenses might fluctuate throughout the year.

7.5 Annual Cash Flow Statement

The annual cash flow statement can be found in Section 8.6.

7.6 Other Opportunities

Given our reliance on funding partnerships in the first few years, it will be important to consider other means generating revenue and cutting costs. Given the large and growing size of the baby products industry, and increasing emphasis on preventing infant mortality, it is likely that we can either secure items at deeply discounted rates, or even charge new sellers to have their items included in bundles, especially as Barakat Bundle becomes commercially widespread. It is also worth considering the implementation of a subscription model of sorts (e.g., BirchBox) in which Barakat Bundle can regularly deliver bundles to mothers, the contents of which would be updated as the child develops. Such a model could be popular especially in the United States. These options indicate to us that if we must make an operational pivot, as startups often do, then there will be viable alternatives to pursue.

7.7 Capital Requirements

Barakat Bundle's funding strategy is based on two capital inflows:

- 1) NVC prize funds: \$50K in NVC funding will be used to administer a pilot program in year zero, in which significant market research will be conducted to determine which items should be included in bundles for delivery to 2,000 expectant mothers. If this program is successful, the results will be presented to the Pakistani government in hopes to secure a partnership ahead of initiating formal operations within the general public.
- 2) Short-term funding: As Barakat Bundle is projected to be cash flow negative in quarter one, we must raise additional funds of approximately \$20K before our official launch and after the pilot program. Thereafter, if we can continue to sustain revenue through our government and corporate partners, Barakat Bundle is expected to become profitable.

8. Appendices

8.1 Performance Metrics

Indicator	Source	Measurement	
		Quarterly	Annually
Program Inputs			
# Each item ordered	Operating records	✓	
# Bundles packaged	Operating records	✓	
# Mothers registered	Operating records	✓	
Program Outputs			
# Bundles shipped	Operating records	✓	
# Bundles received	Operating records	✓	
Program Outcomes			
Δ Health knowledge	Focus group survey	Pilot phase only	
Δ Healthy practices	Focus group survey	Pilot phase only	
% Exclusive breastfeeding	Government records		✓
% Immunization coverage	Government records		✓
% Skilled birth attendance	Government records		✓
% Prenatal care coverage	Government records		✓
Population Outcomes			
Diarrhea incidence	Government records		✓
Pneumonia incidence	Government records		✓
Malnutrition incidence	Government records		✓
Hypothermia incidence	Government records		✓
Preterm birth incidence	Government records		✓
Infant mortality rate	Government records		✓
Maternal mortality rate	Government records		✓

BARAKAT BUNDLE

8.2. Operational Assumptions

	Year 1	Year 2	Year 3	Year 4	Year 5
MARKET					
Total births (in thousands)	5,000	5,020	5,040	5,060	5,080
Government subsidized costs	100%	90%	80%	70%	70%
Corporate subsidized costs	0%	10%	20%	30%	30%
Total market share	1%	7%	13%	29%	66%
Market share from paying mothers	0%	4%	9%	22%	55%
Market share from impoverished mothers	1%	3%	4%	7%	11%
BUNDLES					
Paid bundles delivered (in thousands)	0	227	462	1,172	2,978
Subsidized bundles delivered (in thousands)	61	149	234	369	581
Total bundles delivered	61	376	696	1,541	3,558
STAFF					
Full-time staff	1	4	8	17	39
PRICE					
Market price of Barakat Bundle	\$12.36	\$12.73	\$13.11	\$13.51	\$13.91

8.3 Itemized Costs

Item	Price
Plastic Box	\$0.14
Outfit (5)	\$5.00
Booties	\$0.50
Knit Cap	\$0.80
Blanket	\$1.00
Baby Oil	\$0.10
Bib	\$0.20
Reusable Nappy	\$0.05
Baby Wipes	\$0.10
Picture Book	\$0.45
Doll	\$0.05
Hand Soap	\$0.18
Thermometer	\$0.30
Vitamin A capsules (30)	\$0.30
Oral Rehydration Salts (1 bag)	\$0.04
Condoms (20)	\$0.40
Pamphlet Printing	\$0.10
Retail Cost	\$9.71
Wholesale Discount	18%
Wholesale Cost	\$8.00

All prices sourced from alibaba.com and assumed to increase by 3% each year.

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8.4 Quarterly Income Statement

	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Revenue								
Government sponsorship	\$72,288	\$181,443	\$218,602	\$256,056	\$267,282	\$265,613	\$252,929	\$248,420
Corporate sponsorship	\$-	\$-	\$-	\$-	\$-	\$-	\$92,165	\$173,500
Earned revenue	\$-	\$-	\$-	\$-	\$-	\$-	\$1,152,058	\$1,734,999
Total revenue	\$48,192	\$120,962	\$145,735	\$170,704	\$267,282	\$265,613	\$1,497,152	\$2,156,920
Expenses								
COGS (box / materials)	\$48,192	\$120,962	\$145,735	\$170,704	\$181,824	\$182,552	\$951,321	\$1,340,681
Marketing	\$-	\$-	\$-	\$-	\$-	\$-	\$172,809	\$260,250
Staff (shipping / packaging)	\$2,600	\$2,600	\$2,600	\$2,600	\$3,481	\$4,285	\$7,766	\$12,587
Founder salaries (incl. travel)	\$25,000	\$25,000	\$25,000	\$25,000	\$40,000	\$40,000	\$40,000	\$40,000
C-level salaries	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Office rent	\$7,229	\$18,144	\$21,860	\$25,606	\$26,728	\$26,561	\$149,715	\$215,692
Total costs	\$83,021	\$166,706	\$195,195	\$223,910	\$252,034	\$253,398	\$1,321,611	\$1,869,210
Net Surplus	\$(10,733)	\$14,737	\$23,407	\$32,146	\$15,248	\$12,215	\$175,541	\$287,710

BARAKAT BUNDLE

8.5. Annual Income Statement

	Year 0 (pilot)	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue						
Government sponsorship	\$-	\$728,390	\$1,034,244	\$2,456,069	\$3,485,870	\$5,654,235
Corporate sponsorship	-	-	265,665	1,210,428	4,750,083	12,427,167
Earned revenue	-	-	2,887,057	6,052,141	15,833,610	41,423,891
Total revenue	\$-	\$728,390	\$4,186,966	\$9,718,637	\$24,069,563	\$59,505,293
Expenses						
COGS (box / materials)	\$20,000	\$485,593	\$2,656,378	\$6,081,484	\$13,875,616	\$33,000,913
Marketing	-	-	433,059	907,821	2,375,042	6,213,584
Staff (shipping / packaging)	10,000	10,400	28,119	84,957	192,058	456,506
Founder salaries (incl. travel)	20,000	100,000	160,000	200,000	300,000	300,000
C-level salaries	-	-	-	400,000	480,000	600,000
Office rent	-	72,839	418,697	971,864	2,406,956	5,950,529
Total Expenses	\$50,000	\$668,832	\$3,696,252	\$8,646,126	\$19,629,672	\$46,521,532
Net Surplus	\$(50,000)	\$59,558	\$490,714	\$1,072,511	\$4,439,891	\$12,983,761

8.6. Annual Statement of Cash Flows

		Year 0 (pilot)	Year 1	Year 2	Year 3	Year 4	Year 5
Cash from operations		\$(50,000)	\$59,558	\$490,714	\$1,072,511	\$4,439,891	\$12,983,761
NVC prize funding	\$50,000	-	\$-	\$-	\$-	\$-	\$-
Other funding		\$20,000	\$-	\$-	\$-	\$-	\$-
Net cash flow		\$(30,000)	\$59,558	\$490,714	\$1,072,511	\$4,439,891	\$12,983,761
Beginning cash		\$50,000	\$20,000	\$79,558	\$570,271	\$1,642,783	\$6,082,674
Change in cash balance		\$(30,000)	\$59,558	\$490,714	1,072,511	\$4,439,891	\$12,983,761
Ending cash		\$20,000	\$79,558	\$570,271	\$1,642,783	\$6,082,674	\$19,066,435

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