A Business Plan On

A step for the right direction

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1 Executive Summary

1.1 The Problem

Sudden Infant Death Syndrome (SIDS) is the unexpected death of healthy babies younger than a year old. SIDS is, also known as crib death one of the most common cause of death in the United States with unexplained reasons which occur during the first year of an infant's life. In a study, Moon and Task Force on Sudden Infant Death Syndrome reported that every year in the US nearly 3500 infants die from sleep-related reasons which include ill-defined deaths, SIDS, and accidental choking and suffocation on the bed. American The Academy of Pediatrics has identified three main risk factors that are believed to be the cause of SIDS. Firstly, vulnerable babies having low birth weight, or who are premature, or whose mother smoked before their birth or with unknown genetic factors. Commonly, 2-4-month-old babies are at the highest risk as 90% of total SIDS is reported to occur before six months of age. Thus, age is the second factor. The third risk factor is infants sleeping position or bedding or other things that parents can change, like parents' smoking and recent infections. Findings show that infants sleeping on their bellies have comparatively more risk of SIDS than infants who sleep on their backs. Parents have been advised to use separate bedding without blankets or pillows that can cover the baby's face while sleeping. We'll be talking about the market available solutions but they are not able to capture the market as well as provide a Integrated solution for the problem faced therefore the problem is clearly explained and you will find the solution in the following content in the Business plan.

1.2 Solution

Bodily worn baby monitoring products to ensure better contact with the baby body and efficiently collect baby health vitals and transmit real-time data to connected devices.
Yes it is a simple and elegant solution but where it differs from the existing solutions to the issue is the Dashboard support for Pediatrician enabling them to diagnose the child and give him appropriate medication and there are no solution which sells their product in Indian market as well as the products available in the Canadian or the US Market are not available at a reasonable price as well as does not offer all the functionalities like our system is designed by taking into consideration the parameters required by pediatrician and designed to fit the same.

1.3 Key to Success

1. Low radiation WAN Based Communication System
2. Longer battery life support with wireless charging support for the device
3. Easy to use and access cloud based app Ecosystem for data access
4. Unique Data Science algorithm for a better view and Analytics for warning.
5. Dashboard access to Pediatrician for better Diagnoses
6. Full Proof Support system.

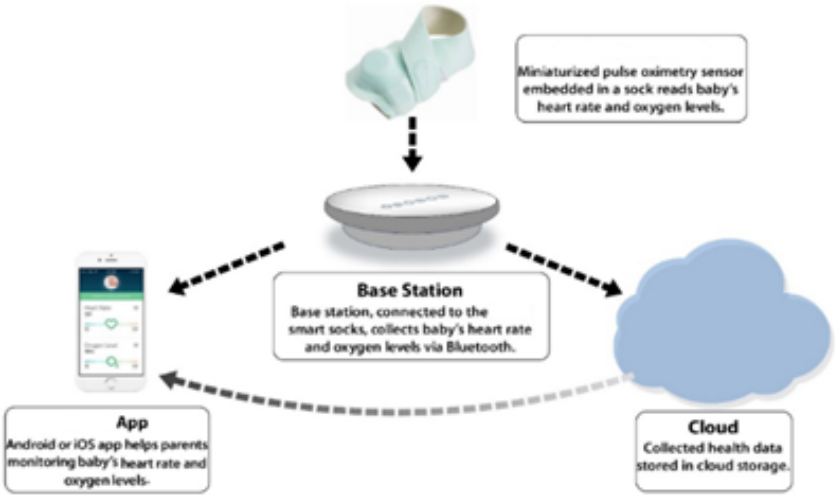


Figure 1.1: Product Model

2 Company Description

2.1 Quick Pitch

Mom's Haven provides smart IoT-Enabled health monitoring system for the Age-group below 5 years as a cloud-based system which will also help in diagnostic analysis of the baby and the health record can be accessed by child's Pediatrician.

2.2 Product Description

Wearable technology, wearables, or wearable devices is incorporation electronics into clothing or accessories that can be worn on a user's body. The purpose of wearable technologies is to provide entertainment, healthcare, and education in people's daily lives. Healthcare wearable, for example, Google Glass, Fitbit, Apple Watch, and Owlet Smart Sock have widely been using to collect health information. Wearable technology has been revolutionizing healthcare through wearable devices by monitoring health continuously outside of the medical or clinic. Previously healthcare monitoring was specific in hospitals and was involved with sophisticated electronic devices where many cables and sensors connected to the electronic display to observe patients. Resulting in patients' discomfort from restricted mobility. Moreover, these pieces of equipment needed qualified medical personnel to operate. Wearable technology, on the other hand, has integrated tiny electronic devices to cloth pieces most of which can work wirelessly and automatically send tracked bio-signals to medical staff. Therefore, healthcare practitioners have started using wearable devices for patient monitoring nowadays. The development of the algorithm for wearable is also facilitating the automatic prediction of many health-related prognostications, and interventions. Monitoring bio-signals is the medical process of collection, and analysis of respiratory, cardiovascular, and body temperature data which can be used to identify critical conditions and prevention of unexpected complications. The biological signal values usually over the range of normal range can be considered to be the cause of disease and

this data can be a major source of information to evaluate patient's improvement of physical condition. The biomedical signals are measured using both invasive and noninvasive way. For this purpose, bio-sensors can be integrated into wearable materials including shirts, socks, bracelets, and buttons. Electronic circuits miniaturization allowing perfectly consistent and coherent incorporation of functionalities, hence, reducing bionic stigma and embrace the market potential of wearable. Devices with less complexity used to monitor health parameters do not require medial specialized medical qualification to use. Modern health monitoring devices can be used by experts or non-experts or even by the patients themselves in hospitals or at home. Noninvasive monitoring electronic devices sensors or actuators can be integrated with textile structures which can be in the form of clothing. Wearable electronic devices for baby monitoring are in the category of both devices and e-textiles. Commercially available baby monitoring wearable comes in several forms, with wireless electronics integrated into socks, leg bands, buttons, onesies, or diaper clips. These devices can send data to parents' smartphones using Bluetooth technology. Wearable structures track temperature, humidity, heart rate, and many more bio-signals. Hence, these structures needed to be smaller in size, easier to wear, and comfortable for the user. The baby monitoring wearable is a modular system based on different body areas for determining vital health signs. The whole monitoring process has three steps: skin the first sensor interface; sensor the second interface with garments and last interface is garment containing conductive yarn or conductive coating to establish the interconnection of electronics.

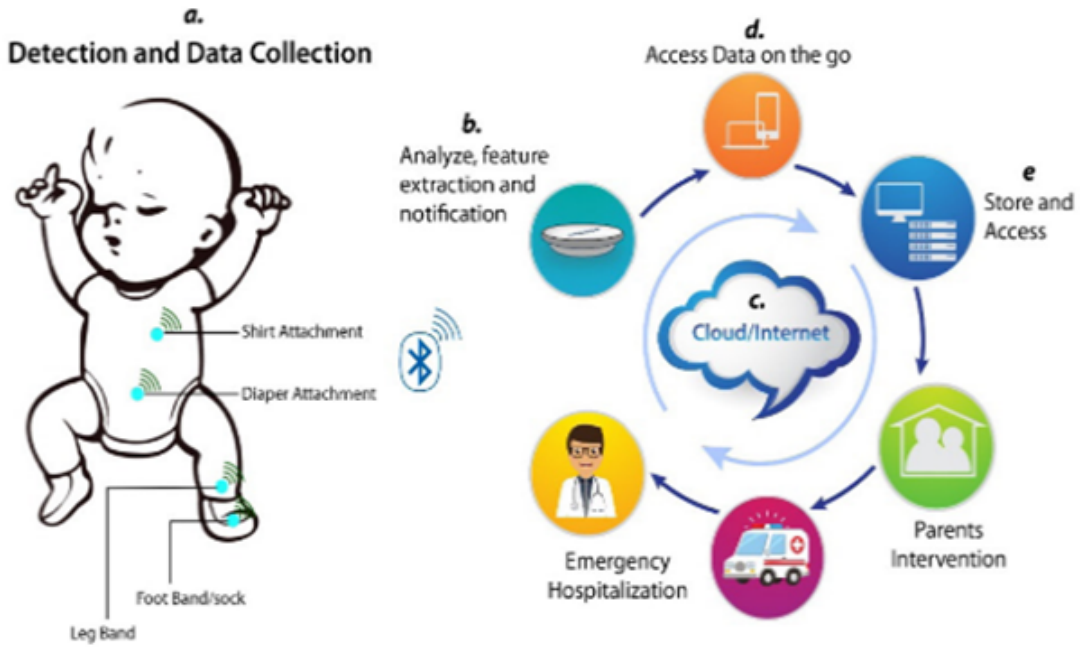


Figure 2.1: Detection and Data Collection

The monitoring process consists of three main steps as illustrated in Figure; firstly, sensing and collecting data from physiological activities, secondly, relay data to cloud storage through the information communication system, and thirdly, analysis of data to extract clinically relevant data and representing it in a readable format. Advancement of sensor technology, microelectronics, information tech, and data analysis has facilitated the rapid wearable health monitoring devices development ranging from maternal, neonatal to elderly persons. Real-time data monitoring reduces parents' stress during sleeping when most parents are worried about SIDS or other sleep-related deaths or during working or are even when they far away or in the workplace. The

audio-visual communication between parents and their children is a big sigh of relief, especially for anxious new parents.

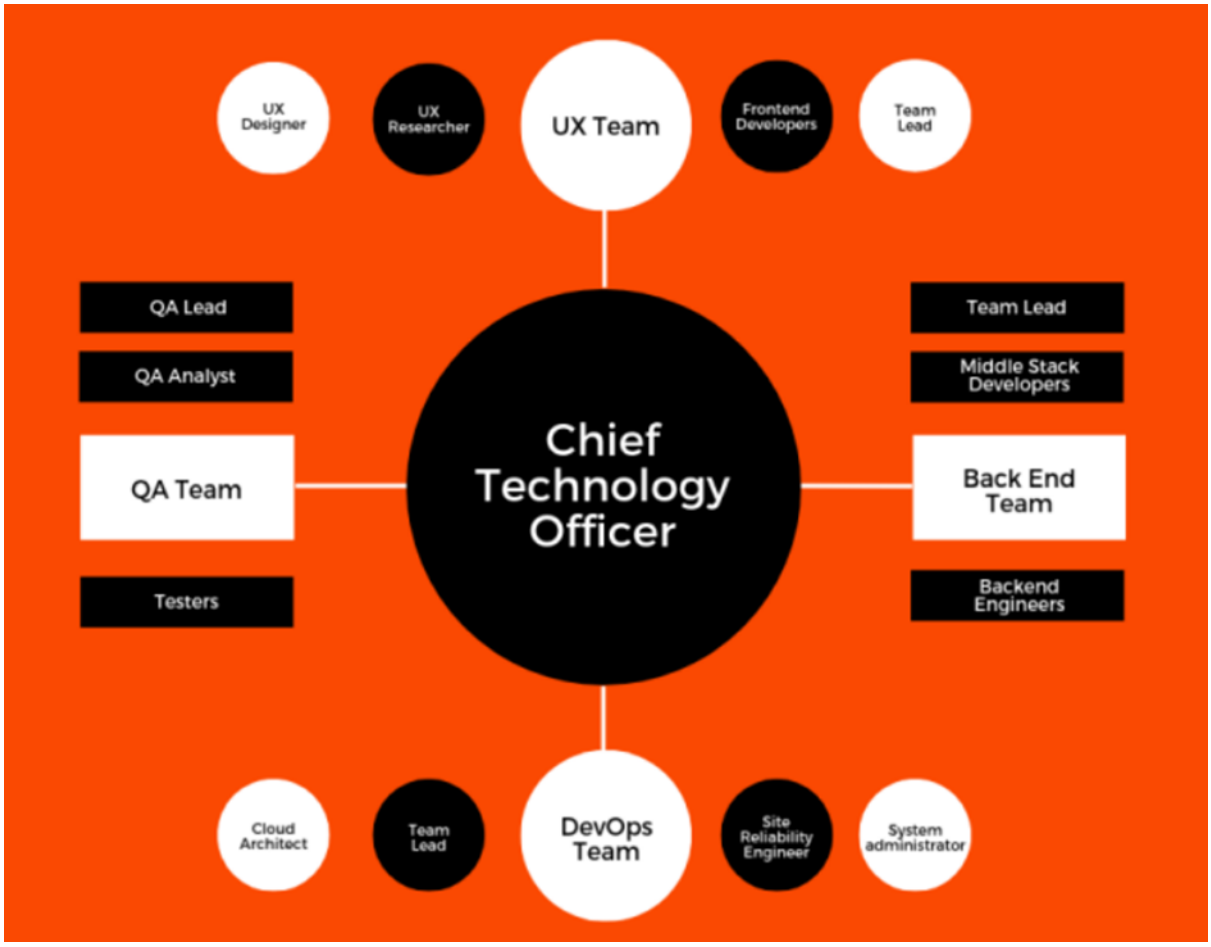


Figure 2.2: Organizational Structure

3 Teams

3.1 UX Team

User experience team is an essential part of almost any startup. It is responsible for creating the best possible experience for users through smart aesthetic design and front-end development. It also cooperates with other mini-teams to achieve the set goals. In our proposed model, the UX team includes the following startup team members:

- UX Researcher
- UX designer
- Frontend developers
- Team leader

A UX researcher analyzes user behavior and draws corresponding conclusions and provides valuable insights based on that behavior. These insights allow the rest of UX team to implement

effective and successful UX design which users absolutely love.

In our model, a UX researcher provides the needed insights to help the UX designer create the right mockups and designs based on the information provided by the UX researchers. These two, in turn, work with the front-end developers who use those insights and designs to build the front-end. Finally, the team leader manages them all and coordinates all collaboration within the UX team.

3.2 Backend Team

This team is the most important one in the entire development department. It is responsible for the core of the application being built and app logic interacting with cloud services as well as the backends' interaction with the front-end through API Endpoints.
The team lead manages backend developers and coordinates the collaboration and workflow. Some readers might question why we included middle stack developers. We believe that this will help improve the connection between frontend and backend i.e. the middle stack developers will serve as the missing link between the two ends. This will allow both front-end and back-end developers to focus on their core work without having to worry about that middle layer and bother with API Endpoints, etc.

3.3 DevOps Team

The key responsibility of the DevOps team is cloud infrastructure management. They are responsible for adding new code to the repository before deployment of each new version and diligently testing the new code. Fast time-to-market and perfect user experience are the major objectives of the DevOps team.
The lead manages the DevOps team, assigns tasks and responsibilities within the team, and controls the workflow. The cloud architect is responsible for building and managing cloud infrastructure. The SRE specialist ensures stable and uninterrupted performance of the apps and systems. The system administrator is responsible for cloud monitoring and support.

3.4 QA Team

The quality assurance team is responsible for testing the application being built to ensure the absence of any bugs, errors and stable efficient performance. The QA lead manages and supervises the QA team. He or she sets quality metrics standards for quality assurance of the product being built and ensures that those standards are met. The QA lead ensures that all queries are resolved on time. Other responsibilities include defining testing strategies, scheduling and assigning tasks among many other things.
The QA analyst creates, manages and executes test plans for both manual and automatic testing. He or she produces the required documentation at all stages of testing and designs test suites. Finally, the testers do just that – execute and run tests. They review and analyze system specifications, execute test scripts, review results, and report to the analyst and QA lead.

3.5 HR Team

Main work of HR team is to manage talent, compensation and employee benefits, training and development, compliance, and workplace safety. An HR department can help provide

organizational structure and the ability to meet business needs by effectively managing the employee life cycle.

4 Industrial Analysis

For healthcare organizations in the midst of strategic planning, a PESTEL analysis can be a useful tool. That's because the best strategies—the ones that position organizations for their best chance of success in a particular time period—are developed in large part based on external factors in which a company operates. A PEST analysis is a framework for baby health monitoring organizations to analyse external events and trends in four areas that commonly affect their business operations and performance, specifically:

- Political factors
- Economic factors
- Sociocultural factors
- Technological factors

A variation of PEST that provides additional insights, called PESTEL, also includes:

- Environmental factors
- Legal factors

For healthcare organizations today, the practice of performing a PEST analysis is acknowledged as an important component of strategic planning. Thanks to the COVID-19 pandemic, we have recently been shown the extent to which external factors can impact the healthcare landscape. Most healthcare facilities had to pivot in an attempt to handle everything from overcrowding and revenue loss to staff and equipment shortages. It is more desirable in the case of babies. Babies always require some extra care and attention.
But even less eventful periods present challenges from outside forces. Doing a PESTEL analysis forces the organization to consider those external factors as part of your strategy planning, rather than focusing solely on you—your facility, your competitors, and the immediate issues you're facing.

4.1 PESTEL analysis of baby health monitoring system

4.1.1 Political factors

The letter P in the acronym PESTLE represents the company's political factors. This section will discuss some of the political factors affecting the baby health monitor system. Since babies are born in every country and the health monitor is the pivot element, we required our product operate in almost every country in different capacities, it has to keep a close eye on the government policies and political scenarios of the countries it operates. Any business requires Political stability and non-fluctuating government policies to run smoothly. Therefore, we have to monitor political stability very carefully since Political instability will adversely affect our operations. Let's discuss using one recent example, The recent conflict between Russia and Ukraine is an example of political unrest affecting the operations of the company since the company have to suspend its operations in Russia. This action will result in a revenue fall since

Russia was a big market that has been closed down due to political reasons.

Similarly, the policies of each country differ from the other. For example, some countries have very rigid and strict policies that make it difficult for the company to operate.

Changing tax legislation, consumer protection and employment regulations, and insurance mandates are all elements in the political sphere that could have an impact on the company. For example, a change in tax policies may call for a strategy adjustment that either takes advantage of increased government spending for healthcare or makes allowances for reduced government subsidies. Or, changes in employment law, like the 2016 legislation that impacted employee overtime requirements, could mean major adjustments in staffing and overtime needs.

4.1.2 Economic Factors

Since companies have to operate in markets and meet the demand of their consumers, economic factors hold great significance since they impact the operations of any company. Unemployment, inflation, and interest rates are examples of economic issues that both directly and indirectly influence the financial performance of our organization. These changing conditions can have an impact on public spending policies and your purchasing power. For example, if we manufacture monitoring system equipment, a high rate of unemployment will mean fewer people are able to purchase our products. Or, more people losing jobs means a greater loss of health insurance coverage, which will affect the types of health services people seek out. Several economic factors would influence the decisions and operations of the company. For instance, countries offering high-interest rates would attract company to invest in those countries. Similarly, cheap labour would be a source of attraction for company to operate in underdeveloped countries. This would decrease the marginal cost of company products, leading to high profits. Moreover, unlike most businesses, recessions wont impact on company much since the company mainly offers products related to the field of medical. Also, the cost of the product should be normal so that all types of people can purchase our product. It will help the company to increase the target audience.

4.1.3 Socio-Cultural Factors

Culture and norms vary from country to country. For any multinational company, it is essential to understand the culture and norms of the country where it is operating, or else it could face serious consequences. A PESTEL analysis for company should also identify changes in demographics, values, and beliefs of your various consumer groups. Social factors highly influence the operations of company. Since the company offers different types of monitoring system, it has to look at the demographics of every market to decide what kinds of products to market to generate maximum revenue for the company. For example, Niger has the highest population under the age of 15. This means a large population of toddlers would also be present. In such a market, company can market its baby health monitoring system to maximize benefits. Moreover, countries with a saving culture like Luxembourg may not generate high revenue for company since people would rather save instead of buying products from the company. Other than that, countries with religiously strict beliefs, where women are not allowed to leave their homes without a veil, would have less purchase for the product. Technological Factors The technological factors mentioned in this section can influence the business performance of company. The new technologies and innovations are increasing the efficiency of health monitoring system and reducing their prices. Social media is considered a significant part of

many business strategies. Company can leverage the opportunities offered by social media marketing to improve business performance. Company can make full use of technology by facilitating its customers by allowing them to shop online from its online store. This will increase company market share and help it generate more revenue. The arrival of 5G is considered a game-changer in every market. Company can make the most of the 5G technology to gain a competitive advantage over the competitors. In addition, company can use its speed to speed up its own operations and gain maximum market share. Since company operate in healthcare, people expect it to be technologically advanced so that it can meet their needs in the best way possible. Other than that, company also wants to gain a competitive edge; that's why it spends a lot of money on RD. Use of advance sensors, monitoring system, small IC chips will help to increase the efficiency and productivity. Technological advancements specific to hospitals and healthcare manufacturers could have a varying range of effects on your overall performance. The equipment being manufactured and used is continually changing, as is the development of new treatments. And new technology outside the healthcare field could also affect how an organization communicates with their consumers, as in app development or digital marketing. Planning ahead to take advantage of those advancements could mean good opportunities for growth .

4.1.4 Environmental Factors

The growing concern over global climatic changes, increasing pollution, and its effect on human health has also increased environmental analysis importance. These days, it is not enough for companies to consider only economic factors while studying new markets; they must also consider environmental factors.

Businesses must also take into account environmental standards before making any decisions. For example, since company is expanding its business across various regions, it needs to be careful about the environment in which it operates.

Over time, the world has shown interest in renewable technologies. Consumers consider companies using renewable technologies are deemed to be preferred by the consumers; some countries even offer subsidies to attract investors to invest in renewable technologies.

Company can benefit from renewable subsidies. As a result, it will be able to invest in renewable technologies. This investment is beneficial because it ensures long-term sustainability, increases stakeholder satisfaction, and expands the customer base through enhanced brand image.

Moreover, different countries have different levels of strictness regarding the issue of resource depletion. Therefore, company should study the policies of each government on resource depletion so that it can stay away from the bad publicity. Company's excessive use of resources can draw a negative response from several groups, such as environmental protection groups, customers, and the general public, which would hurt the company financially and reputation.

4.1.5 Legal Factors

The sixth factor of PESTEL analysis highlights the legal factors that affect a company's operations. A multinational company should abide by the laws of the markets where it operates.

Minor negligence can result in bans and heavy penalties that would damage the company financially and reputation-wise.
Company have to ensure that they are not liable for any lawsuit. For example, many countries have strict regulations for the health and safety of workers in factory settings; it is the responsibility of company to check if its factories adhere to these guidelines.

Similarly, anti-discrimination laws also need to be carefully studied when developing human resource practices since discriminatory suits against employers harm the organizational image and affect the organizations' ability to attract and retain talent.

Company also need to consider the data protection regulation to protect customers privacy and security. Moreover, there are laws to set maximum prices, ensure certain quality standards and protect consumers from fraudulent marketing claims. Company must consider these factors to comply with consumer protection laws.

Furthermore, to protect the company's patents and other valuable ideas company has developed strict policies regarding the usage of intellectual property rights. These Intellectual property legal documents associated with patents provide the framework for business development policies that can be identified as a source of competitive advantage.

5 Market Analysis

5.1 SWOT Analysis

5.1.1 Market Dynamics Drivers(strengths) for the Global Baby Health Monitoring System Market:

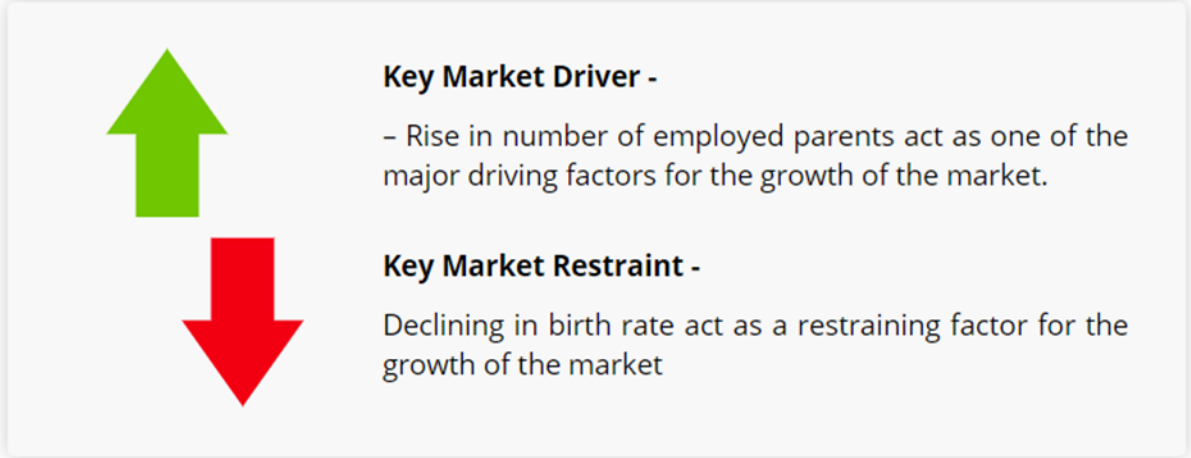
The increase in investments towards healthcare infrastructure development around the world is a key factor fuelling the revenue growth of the baby health monitoring system and infant monitoring system markets. Infant monitoring systems to provide care and safety to babies.

- Increasing the number of employed parents globally
- Rising awareness about baby safety
- Increase in demand for baby monitors in emerging countries

5.1.2 Restraints Global Baby Health Monitoring System Market:

The lack of understanding about how to use and build these products is expected to stymie market expansion prospects. Resistance to these new products and technologies is expected to pose challenges to the baby health monitoring system markets.

- Repeated false alarms from the monitors and lead to unnecessary tests performed on babies



5.1.3 Opportunities for the Global Baby Health Monitoring System Market:

The baby health monitoring system markets benefit from an increase in geriatric populations, increased online availability and purchase of products, as well as the acceptance of inconspicuous monitoring solutions. Furthermore, technological improvements provide market participants with profitable opportunities over the projected timeline.

- Evolution in e-commerce

5.1.4 Trends for the Global Baby Health Monitoring System Market:

Health monitoring solutions are likely to be the fastest-growing segment in this market. People are becoming more aware of the need of tracking and managing their baby's health. Consumers are being pushed to embrace health monitoring systems by factors such as growing awareness of sleep as a health concern, and a surge in the occurrences of sleep-related health problems such as obesity. Moreover, increasing personal disposable incomes is another factor that is expected to aid this market's economic growth in the years to come.

5.2 Baby Health Monitor System Market Outlook

The baby monitor market is estimated at USD 567 Million in 2022 and is projected to reach USD 1,264 Million by 2032, growing at a CAGR of 8.3% from 2022 to 2032.
The baby health monitor market accounts for 10% of global baby care products market in 2022 and is expected to grow due to increased awareness about child safety, rise in birth rate and consumer willingness to spend on baby care products. Baby monitor market is expected to gain an absolute $ opportunity of USD 697 Million during the assessment period (2022-2032).7

Baby health monitors help to keep an eye on the little one throughout the day to reassure parents about their safety when they are away from their babies for work. It also enables to keep a check on baby sleeping in other room at night. Many baby monitor brands provide advanced features such as temperature control, pulse rate checker, movement tracker, and remote camera control, Heart rate, oxygen monitor, sugar level, sleeping time, active time. These features provide added convenience and comfort to parents. Along with this this can store the reading information for doctors prescription. Owing to the above-mentioned benefits offered, demand for baby health monitor is expected to rise in the coming years.

Attributes	Details
Base Year Value (2021A)	USD 529 Million
Estimated Year Value (2022E)	USD 567 Million
Projected Year Value (2032F)	USD 1,264 Million
Value CAGR (2022-2032)	8.3%
Collective Value Share (US, UK, India): 2022 Top 3 Countries	35%

Table 1: Baby Health Monitor System Market Outlook

It is impossible to escort baby during every task of the day, baby health monitor allows to keep track of infant from a distance while consumers complete their everyday tasks. It acts like a nanny and keeps track of every movement to convey any irregularities. Alongside, a rise in the number of working women and consumer readiness to rely on electronic devices to ensure proper care of infants is predicted to propel the growth of the market.

5.3 Baby Health Monitors Gaining Traction in the Industry

Manufacturers are focusing on offering additional functional features in the baby monitors like night-time vision, recorded lullabies for babies, 2-way audio tracking and automatic generation of baby sleep schedule. Key regulatory bodies are in the process of standardizing stringent regulations for manufacturing baby heath monitors with an aim to avoid any side effects on a baby's health. This, in turn, is expected to positively affect the demand for baby health monitors in the market.

An increase in per capita income, change in consumer lifestyle, hike in employment rate and extended working hours which keep parents out of house are expected to push the demand for baby health monitors further.

Global baby health monitor system market by category

- • By Product Type:
  - Hand/leg band Baby Health Monitor
- By Connectivity:
  - Wired
  - Wireless/Wi-Fi

- By Sales Channel:
  - Retail Stores
  - Supermarket/Hypermarket
  - E-Commerce
  - Specialty Store
- By end-users:
  - Hospitals
  - Clinics
  - Personal
- Based on Region:
  - North America
  - Europe
  - Asia-Pacific
  - South America
  - Middle East Africa

5.4 Market Segmentation Analysis

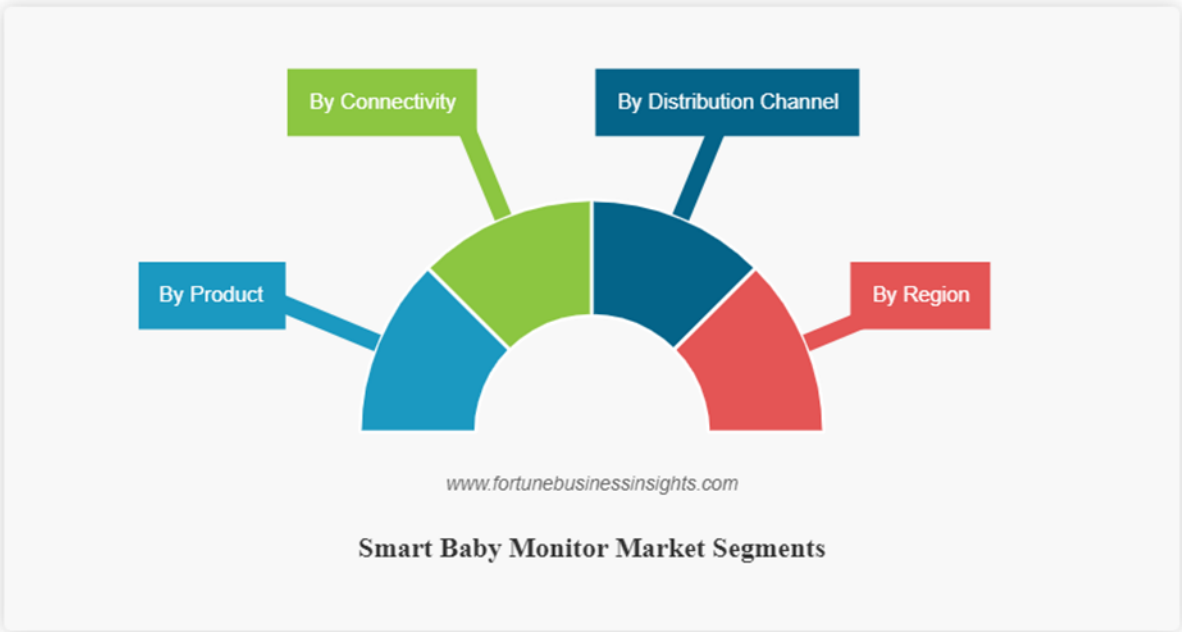


Figure 5.1: Smart Baby Monitor Market Segments

ATTRIBUTE	DETAILS
By Product	• Audio &Video • Tracking devices
By Connectivity	• Wired • Wireless
By Distribution Channel	• Online • Offline
By Geography	• North America (U.S., Canada, and Mexico) • Europe (France, Germany, Italy, Spain, U.K., Russia, and Rest of Europe) • Asia Pacific (China, India, Japan, Australia, and Rest of Asia Pacific) • South America (Brazil, Argentina, and Rest of South America) • Middle East & Africa (South Africa, UAE, and Rest of ME&A)

Table 2: Market Segmentation

5.5 Country Wise Insights

5.5.1 What is the market scenario of baby health monitors in US?

North America is predicted to be the market leader in terms of value for baby health monitor market. Considering countries such as US, Canada where number of working class parents are willing to spend more on smart baby-care products holds high revenue generating potential. Moreover, few baby monitor being operable through mobile apps offers more convenience to parents, hence are anticipated to multiply US market valuation by 2.3X during upcoming decade.

The demand for baby health monitors in US is estimated to be valued at USD 220 Million by 2022 end. The U.S. holds a market share of 80% in the North American baby health monitor market during 2022 and is anticipated to grow steadily at a CAGR of 6.6% for the forecast period. It is expected to surpass market value of USD 420 Million by 2032.

5.5.2 What is driving the Asia-Pacific baby health monitors market?

Asia pacific is expected to be a most attractive destination for baby health monitor manufacturers. The rising middle-class population and consumer willingness to spend on premium baby care products promises positive growth in baby health monitor's demand. The Indian baby monitor market is prophesied to witness 2X growth owing to an increase in the spending capacity of consumers and rising number of nuclear families with less number of members to look after a baby.

The demand for the baby health monitors market in India is estimated to be valued at USD 46 Million by the completion of 2022 whereas it's anticipated to holds a market share about 55% of Asia baby health monitor market by 2032 end. Moreover, it is anticipated to grow rapidly with a CAGR of 8% during the forecast period and surpass the market value of USD 104 Million in 2031.
For the Baby Health Monitoring System Market research study, the following years have been considered to estimate the market size:

Figure 5.2: Global baby health monitor market, 2022

6 Marketing Plan

For baby health monitoring system 4 Ps of marketing are described below:

6.1 Product

We are providing a smart monitoring system for baby which constantly monitor baby's health using temperature sensors and blood pressure measurement. This device is directly connected to internet which constantly update data into dashboard and also send warning signal if unusual reading is acquired. The device will be similar to a band which can be easily tied to baby's hand or leg. This light weight device can easily be tied and remove from baby.

6.1.1 Features

- Light weight band
- Can be connected to Wi-Fi
- Type-c charging port
- Compatible application from play store and app store
- Measures temperature and blood pressure
- Sends emergency message to device connected

All components of the product are built with good quality of material. Sensors and circuits are built by Intel which provide a very good technical support and reliability of the product. Thus, product comes with 1 year of warranty in case of any technical issue. The warranty will be door step warranty, so that customer need not find any service centre. Company will provide service to take the device from door step for check-up.

Attributes	report details
Historical Years	2016-2020
Base Year	2021
Estimated Year	2022
Short Term Projection Year	2028
Projected Year	2023
Long Term Projection Year	2032
Report Coverage	Competitive Landscape, Revenue analysis, Company Share Analysis, Manufacturers Analysis, Volume by Manufacturers, Key Segments, Key company analysis, Market Trends, Distribution Channel, Market Dynamics, COVID-19 Impact Analysis, strategy for existing players to grab maximum market share, and more.
Regional Scope	North America, Europe, Asia-Pacific, South America, Middle East & Africa
Country Scope	United States, Canada and Mexico, Germany, France, UK, Russia and Italy, China, Japan, Korea, India and Southeast Asia, Brazil, Argentina, Colombia etc. Saudi Arabia, UAE, Egypt, Nigeria and South Africa

Figure 6.1: 4 Ps

6.2 Price

Smart watches which measures blood pressure are staring form Rs. 2000. Our product is built for babies and carefully designed to wear and analyse temperature and blood pressure will only cost Rs. 2499. This price is easily affordable, which can make target market wide. We are also considering subscripting based on months of use as this product is not usable to everyone for long time. With this price customer will get not only product but type-c charging cable to charge device and also to user guide book manual to use the product.

6.3 Place

Seeing craze of baby monitoring system, we plan on launching this product in all over the India. Due to busy life of parents, every parent like to use some device which can monitor their baby which they work and send some if baby gets sick. As this product is for new born baby, our target market is hospitals. By making a deal with hospitals form each regions, our product will get notify by parents and with its reasonable price it will attract more people.

6.4 Promotion

Social media is one of the best place for marketing. We can target audience by hashtags and their interest. By picking interest we can sell our product to target market. Product will be available in top ecommerce shopping app to ease of purchase. Customer can purchase the product from our site as well which will provide some promo code for discount as well. By giving free baby toys and additional vouchers we will attract more people. We will use YouTube ads as well to show product and its use to target market.

7 Operational Plan

7.1 Location of headquarter

We are a global company with our corporate headquarters located in Bengaluru, India. Our headquarters facilities in Bengaluru comprise approximately 50,000 square feet of space pursuant to several leases that expire at various dates through July 2025. Our corporate headquarters serve as the principal facilities for our administrative, sales, marketing, product development, and customer support groups. We also lease additional office space in Gurugram, India and around the world for various product development, operational and support purposes which includes San Francisco, Boston, Shanghai, Hong Kong, Beijing etc. We believe our existing facilities are adequate to meet our current requirements. We believe in remote work. Nobody has to move. We can hire the best of the best, from wherever they live.

7.2 Locations for manufacturing

All of the components of our product are made by contract manufacturers in Asian countries. Each product is made by a single contract manufacturer. The components used to make our product are sourced from a variety of contract suppliers worldwide. By relying on countries like India and China, where labour cost is very low our company can maximize profit margin by keeping cost low.

7.3 Outsourcing

The device is comprised of:

1. A central processing unit (CPU). This is a very powerful chip supplied by Technology Manufacturer 1 which represents the computing brain.
2. FLASH chip. This is memory capacity that does not die when power is turned off.
3. SDRAM chip. Normal memory capacity.
4. A Controller. This governs the data flow from the satellites to the server.
5. RNSE's proprietary Product Blennie.
6. Multipath optical heart rate tracker.
7. Multipurpose electrical sensors compatible with the ECG app and EDA Scan app
8. Gyroscope
9. Altimeter, which tracks altitude changes
10. 3-axis accelerometer, which tracks motion patterns
11. On-wrist skin temperature sensor
12. Ambient light sensor
13. Built-in GPS receiver + GLONASS, which tracks your location during a workout

14. Vibration motor
15. Speaker
16. Microphone
17. Materials : The band that comes with Sense is made of a flexible, durable elastomer material similar to that used in many sports watches.
18. Wireless technology : Sense contains a Bluetooth 5.0 radio transceiver, Wi-Fi chip, and NFC chip.
19. Haptic feedback : Sense contains a vibration motor for alarms, goals, notifications, reminders, and apps.
20. Battery : Sense contains a rechargeable lithium-polymer battery.
21. Memory : Sense stores your data, including daily stats, sleep information, and movement history, for 7 days. See your historical data in the app.
22. Display : Sense has a color AMOLED display.
23. Other elements like voltage regulators, electrical conduits to connect chips and external hook-ups.

The following list is a schematic of the main recipients of this outsourcing and the major features of the Product Category One devices offered by each.

- **Outsource Provider 1** : The processor used is somewhat slower and parts costs are higher than with Technology Manufacturer 1's CPU chip. This company, by virtue of its parent being a contract manufacturer-assembler of smart devices, is primarily hardware-focused. It would not be easy for Outsource Provider 1 to switch from Technology Manufacturer 2's chip to Technology Manufacturer 1's.
- **Outsource Provider 2** : This company seems to be market-segmenting to concentrate more on the multi-media market represented mainly by ATMs and kiosks (such as betting kiosks) which require a keyboard and a screen for user interface.
- **Outsource Provider 3** : This company moved in the wrong direction from the start by using their own proprietary software which is built into their devices. This puts them at a real disadvantage. Their devices are the slowest, and the least flexible, but still fine for certain non-demanding purposes. The company has done some work for the HVAC market. Their lower price reflects their limitations.
- **Outsource Provider 4** : This company, located in Vancouver, in close proximity to Software Manufacturer 1, is primarily a software company made up probably of ex-Software Manufacturer 1 people. This explains their emphasis on the Technology 2 software. Despite Software Manufacturer 1's operating system dominance in one market, the Technology 2 market is different. There are many widely-used Technology 2 operating systems. This company buys their hardware from Outsource Provider 1.

- **Outsource Provider 5** : Outsource Provider 5 is a European-based company. Its products are distributed and supported in America by a separate corporation in California. This extra layer may explain the added price. Specs are similar to those of Outsource Provider 1.

- **Rosafarbenes Nilpferd Sons Engineering** : RNSE has made a considered effort to offer the fastest CPU chip and to build in the widest range of capacity (from low amounts of FLASH and SDRAM up to high amounts). RNSE tries to make its units compatible with all the major top-tier Technology 2 world operating systems and will work with the second- and third-tiers as well.

- The chips and other basic building blocks used in Rosafarbenes Nilpferd Sons Engineering's Product Category One platforms can be purchased from a number of large distributors. Sourcing is not a problem, but order scheduling must be given careful attention. Shortages can occur, making it necessary to order well in advance and to stockpile in order to make certain that sales does not outstrip production.

7.4 Raw material extraction

To make a Fitbit, they obviously need materials so the final product can be assembled. Here are some of the raw materials and where they are mostly extracted from. Some of the major natural resources mined for a Fitbit are: Polycarbonate, Silicon, Nickel, Chromite, Manganese and Aluminum. The rest are other materials such as Nitrogen, Rubber, Sand, Copper, Silver, Water and Silica. These are all non-renewable resources except Water, it is a flow resource.

7.5 Raw material location

There are multiple locations to find most of these resources but the map included shows where they are mainly found.

Poly-carbonate can be found in Germany, Nickel can be found in 23 countries but Russia is one of the main extractors. Silicon can be found in China and Silicon also takes up 28% of the Earth's Crust and the minerals that silicon is found in take up 90%. These materials which are Chromite and Manganese can be found in South Africa, one of the main areas for lots of minerals such as the two on the map. Lastly, aluminum is the third most abundant metal and can be found mostly in three countries, China, Russia and Canada.

7.6 Materials Processing/Component Manufacturing

After the raw materials have been extracted and cleaned up, they are then sent to the P.O.S Manufacturing Company of Gurugram, India and Beijing, China to turn them into their desired components to complete the final product later on i.e, to assemble all the pieces together.

7.6.1 Socially responsible Business partners

We ensure that we are manufacturing and sourcing from socially responsible Business Partners who:

- Comply in a timely manner with all applicable laws and regulations

- Conduct assessments as needed in support of such compliance
- Promote continual improvement through monitoring and training
- Make available independent avenues for workers to raise concerns related to responsible supply chain sourcing, and
- Proactively participate in industry level initiatives and coalition.

7.7 Labour

The staff at our company come from unusually diverse demographic backgrounds. The company is 27.1% female and 58.1% ethnic minorities. Despite its diversity in other areas, Fitbit employees are noticeably lacking in political diversity.

We recruit different positions at our company with different skill sets. Some of which are as follows:

1. **Manufacturing Lead** : Masters in mechanical engineering, industrial engineering, 10yrs of experience, 3 yrs of leading a technical program
2. **Technical Program Manager** : Masters/Bachelors in engineering, 8 yrs of experience in program management, experience sourcing and managing third-party vendors
3. **Software Engineering Manager** : Bachelors/Masters in computer science, 5-8 yrs of experience, 3 yrs of managing technical team.
4. **Staff Hardware Engineer** : Masters in electrical engineering, computer science engineering, physics, 6-8 yrs of experience working in hardware engineering.
5. **Systems Power Engineer**
6. **Head of life cycle Marketing, Email, CRM**
7. **Strategic Partner Manager, Health Solutions**
8. **Quality Program Manager**
9. **Research Scientists Photoplethysmography**
10. **Hardware Lead**
11. **Device Engineering Lead**
12. **Research Scientists Consumer Health**
13. **Supplier Development Engineer**
14. **Manufacturing Test Engineer**
15. **Test Engineer**
16. **Program Manager**
17. **Interaction Designer**

And small labour/worker groups for non productive works.

We believe all workers in our supply chain deserve a fair and ethical workplace. Workers must be treated with dignity and respect and our Business Partners must uphold certain standards of human rights. The labour standards set forth in this Code must be applied to all types of workers, including temporary, migrant and student.

7.8 Major Partners for different components

- Electronic manufacturing companies
- Application developers
- Rubber forming factories of china
- Suppliers such as Semitech Technology Ltd, Shenzhen
- Retailers such as Coolblue, amazon, WESTech, 21run, Prisma, etc.
- Shipping firms

7.9 Sold at target

This product is technological, and hence can be sold on multiple platforms, which can be online as well as offline. In online mode our product can be sold on e-commerce sites like amazon, flipkart etc. On the other hand for offline stores we can use medical stores, walmart and electronics stores that help us grow.

Type of Segmentation	Segmentation Criteria	Customer Segments
Geographic	Region	10 countries and regions globally
	Density	Rural and Urban
Demographic	Age	0-5 yrs
	Gender	Both male and female
	Life cycle stage	infant
Psychographic	Social Class	Middle class and Upper class
Behavioral	User status	Non-user, potential user, regular user and first user
	Loyalty and Personality	Hard and softcore loyal, Health conscious and easy going
	Benefits	Cost attractiveness and differentiated fitness products

Table 3: Different Segments for sale

7.9.1 Cost structure vs Revenue generations

Cost Structure	Revenue Generation
1.Research and development 2. Assembling cost 3. Marketing cost 4. Technological Expenditure and Innovation 5. HR cost 6. Resource generation 7. Shipping	1. Accessories 2. data generation and analysis for research 3. Maintenance

Table 4: Cost Structure v/s Revenue Generation

8 Financial Projection

As, the initial cost of product is to be kept at 2499/-, and for that necessary raw materials will be acquired. The required raw materials needed would be as follows:-

- Temperature Sensor,
- Blood Pressure Sensor,
- Wi-Fi Module,
- Battery,
- Rubber band

Below Figure shows the expected percentage of cost to be incurred by acquiring each material for the product and the expected Gross Margin.

8.1 Initial Expenditure

Various parameters like manufacturing setup, office setup, packaging unit, are being considered in the initial expenditure . Below data gives the rough idea about the expected cost to be incurred on various type of setups to be done.

- **Manufacturing Unit Setup (Expected)** : 1 crore
- **Office Setup** :- 50 lakh
- **Packaging Unit** :- 20-25 lakh (expected)
- **Initial Cost of Setting Industry Base** :- 1.75 crore

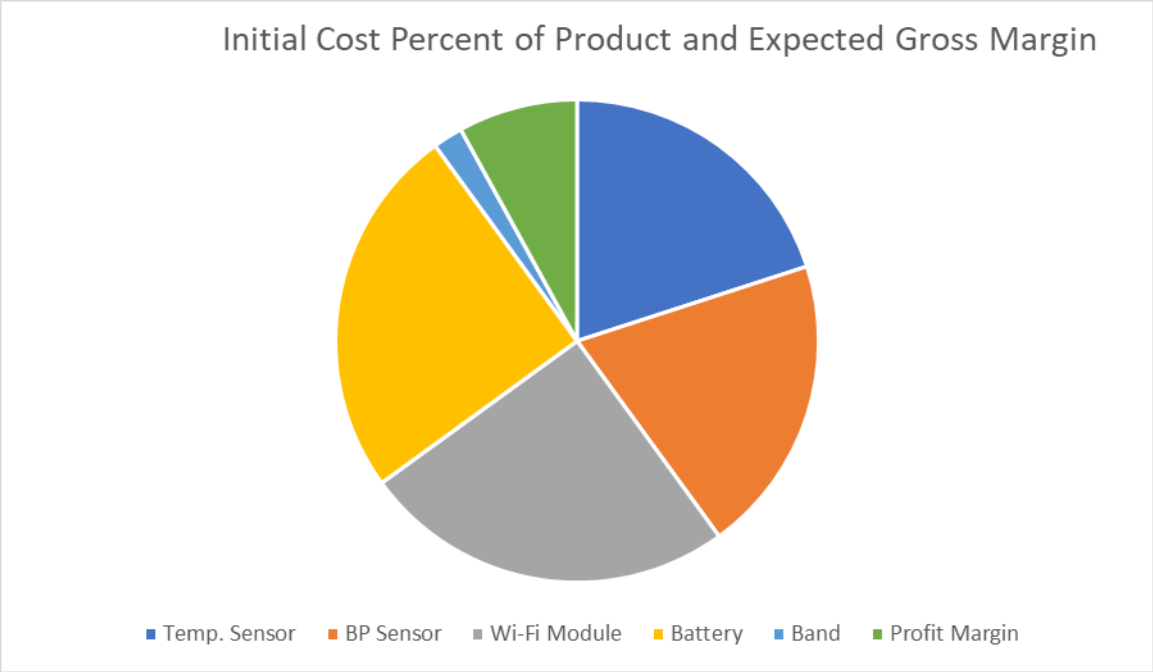


Figure 8.1: Cost Distribution of Components of Product

8.2 For Recurring Expenses

Various parameters like employee salary cost, worker salary cost, maintenance cost for the machinery, are being considered in the recurring expenditure . Below data gives the rough idea about the expected cost to be incurred on various type of recurring costs.

- **Expected No of Employees** :- 50
- **Salary Expense** :- 2.5 crore
- **Workers for packaging and manufacturing** :- 50
- **Salary Expense** :- 1.25 crore
- **Maintenance Expense** :- 1 crore

8.3 Quarterly Sales

Below Information in the form of bar chart gives an idea of the expected sales in each quarter of the current year.

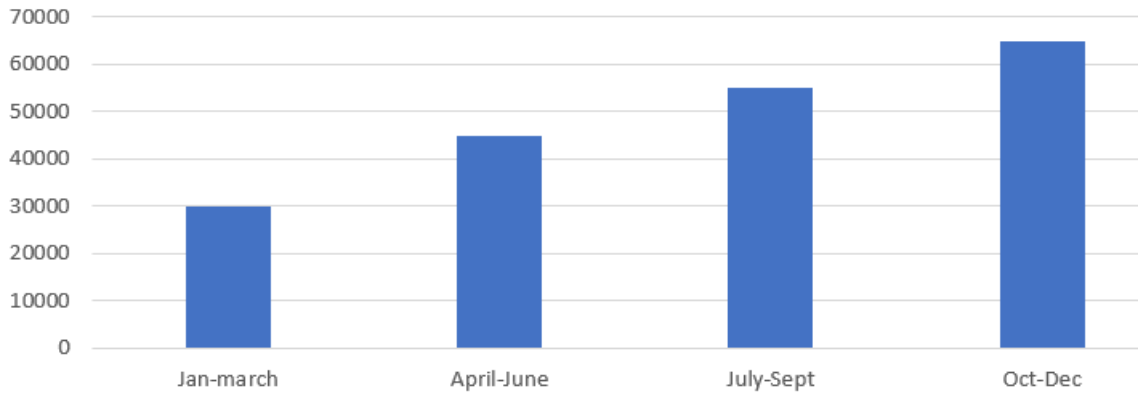


Figure 8.2: Expected Sales in each Quarter

8.4 Expected Revenue

Below is the calculated profit by considering the expected yearly revenue, initial cost and recurring expense considering the Profit Margin. Profit Margin is set at 8%.
So revenue generated at each quarter, after consideration of profit margin, is

First Quarter Revenue	60000*2500*0.08 = 1.2 crore
Second Quarter Revenue	75000*2500*0.08 = 1.5 crore
Third Quarter Revenue	95000*2500*0.08 = 1.9 crore
Final Quarter Revenue	125000*2500*0.08 = 2.5 crore
Total Yearly Revenue	8.1 crore expected

Table 5: Expected Revenue calculation

Final Expected Total Yearly Profit will be

Profit	Expected Revenue – Initial Cost – Recurring Expense
	8.1 – 1.75 – 4.75
	1.6 crore (Expected)

Table 6: Profit Calculation