



**Bambi
Belt**

A Bambi Medical Company



Fontys

University of Applied Sciences



Bachelor thesis: From the Netherlands to India

*Market research and entry mode suggestions for Bambi Medical to enter the
Indian medical devices market*

“Should Bambi Medical enter the Indian medical devices market and what would be the most effective method of entering?”

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PREFACE

I would like to take this opportunity to express my gratefulness to my university coach, Mr. Jan Schouwer for giving me his expert advices, valuable knowledge, and encouragement throughout this important project.

A word of thanks should be given to Ms. Steeghs, my company mentor, who has been assisting, helping, and putting her time and effort in guiding me during my internship. I also want to show my gratitude to other colleagues in Bambi Medical B.V. for their wonderful collaboration. I am very grateful for the chance that the company gave me to work with the team and being a part of Bambi Medical during my internship. They supported me wholeheartedly and were always willing to help me whenever I faced difficulties.

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Eindhoven, Netherlands, September 18th, 2017

Cat Bui

EXECUTIVE SUMMARY

The thesis was conducted for the sake of the Dutch startup company - Bambi Medical B.V., which is developing Bambi Belt - a new solution for monitoring vital signs of premature infants in incubators. The needs to conduct a market research has risen because the company plans to expand its business to India.

The goal of this research was to investigate the Indian medical devices market and identifying which factors are to be taken into consideration when planning the entry into the Indian market. The theoretical part consists of three different sets. The first one is context analysis which aims to explain the context of this thesis. The second part describes the definition of market attractiveness and which method should be used to determine the market attractiveness. The last part contains the information about the international market entry strategies, the SWOT analysis, and the decision-making process.

The practical part describes the application of the marketing research and the formulation of the entry mode strategy. The data for the research has been gathered through desk research and a questionnaire. During the research, the competitors, as well as the potential customers, have been identified. It has been discovered that there are no direct competitors focusing on the premature neonate market specifically, but on the medical devices market in general. The analysis has shown that the Indian medical devices market is enlarging rapidly. The Indian medical devices market obtains various characteristics which make it becomes a prosperous market for Bambi Medical with plentiful opportunities. However, besides the positive characteristics, there are several threats in the market that Bambi Medical should take into consideration.

The final part of the thesis contains the information on the market entry mode. It has been decided that export house modes and piggyback modes would be the most suitable way of entering for Bambi Medical. The further recommendations to the company were given.

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LIST OF ABBREVIATIONS

ANCS	<i>Antenatal corticosteroids</i>	IMNCI	<i>Integrated Management of Neonatal and Childhood Illnesses</i>
ANMS	<i>Auxiliary Nurse Midwives</i>	IT	<i>Information Technology</i>
ASHA	<i>Accredited Social Health Activist</i>	KMC	<i>Kangaroo Mother Care</i>
BPO	<i>Business Process Outsourcing</i>	LOI	<i>Letter of intent</i>
CEO	<i>Chief Executive Officer</i>	NBCC	<i>Newborn Care Corners</i>
CTO	<i>Chief Technology Officer</i>	NBSU	<i>Newborn Stabilization Units</i>
EMRI	<i>Emergency Management Research Institute</i>	NICUs	<i>Neonatal intensive care unit</i>
FDI	<i>Foreign direct investment</i>	PICU	<i>Pediatric intensive care unit</i>
F-IMNCI	<i>Facility based - Integrated Management of Neonatal and Childhood Illnesses</i>	R&D	<i>Research & Development</i>
GDP	<i>Gross domestic product</i>	RMNCH+A	<i>Reproductive, Maternal, Newborn, Child, and Adolescent Health</i>
HBNC	<i>Home Based Newborn Care</i>	SC	<i>Scheduled castes</i>
HMRI	<i>Health Management Research Institute</i>	SNCUs	<i>Special Newborn Care Units</i>
ICN	<i>Intensive care nursery</i>	ST	<i>Scheduled tribes</i>
		WHO	<i>World Health Organization</i>

1. INTRODUCTION

1.1. Company and problem background

1.1.1. *About the company*

Bambi Medical B.V (hereafter Bambi) is a startup company that is established by Fabio Bambang Oetomo and his father Sidarto Bambang Oetomo in 2016. Besides the two founders, the board of Bambi consists of another five members who are experts in their area, and in total the company has 8 employees at this moment.

❖ Product

Bambi has been developing Bambi Belt – a new solution for taking care of preterm babies. The preterm babies by definition of WHO are babies born before the 37 weeks of the 40 weeks gestation period. Nonetheless, the preterm babies that the company target are the babies who born very premature, e.g. more than 28 weeks and less than 32 weeks, or extreme prematurely, e.g. less than 28 weeks, who are required intensive care treatment in the special units. Bambi Belt offers the new way to monitor the vital signs of the babies such as heart rate, temperature, ECG, etc. without using wires, meaning the babies will be released from the pain and stress caused by the adhesive electrodes. Additionally, the babies will have more freedom, since all the wires are now removed, it gives the parents the opportunity to maximize the skin to skin contact - Kangaroo Mother Care (KMC)- with their babies. Bambi Belt is disposable and recommended to be replaced every 3 days, to ensure the hygiene in the incubator environment.

1.1.2. *Problem background*

Bambi Belt is in the final stage at present, and Bambi wants to launch its first sales in 2018 in the European market. After that, Bambi is planning to expand its market and pilot its product to new markets with commercial healthcare systems. The target customers for Bambi are private hospitals within the desired market. To be able to do that, a good market entry plan will be necessary. The company is considering choosing India for the target market, however, since the Indian market is unfamiliar with the company, it is not yet certain that India will be suitable for Bambi to introduce its Bambi Belt. Furthermore, choosing the best market entry strategy for Bambi to enter the Indian market with the lowest risk rate and highest revenue is essential for the company and it requires a market research to gather the most important data that support the decision on market entry strategy.

1.2. Problem statement – Objectives – Deliverables

1.2.1. *Problem statement*

Before entering any new market, the management problem for the decision maker of Bambi will be *“Should Bambi enter the Indian medical devices market and what would be the most effective method of entering?”*

India appears to be an attractive market for Bambi to introduce Bambi Belt due to the high rate of premature birth, the fast-growing rate of the Indian medical devices market, and the increasing number of private hospitals in India. However, the picture of the Indian medical device market is still unclear, the characteristics of the Indian medical devices market such as market size, structure, main players, etc. are not yet investigated. Besides the positive aspects of the market, there are also some blockages for the company. The difference in the economy, infrastructure, the political factors, and the culture, etc. becoming the obstacles for Bambi when entering the Indian market. These factors will affect the company's market entry strategy. In theory, there are various methods of entering the new market, however, with a startup company like Bambi where time, experience on the target foreign market, and financial resource are limited, the options are narrowed.

Thus, it is always necessary for the company to investigate and study the market before entering and investing in that market. Bambi is a startup company who is young and inexperienced in the Indian market, hence, it is crucial to ensure that the marketing department of the company has a deep understanding the market, to provide the decision maker of the company the helpful information that can help him make his decision correctly and profitable.

1.2.2. Objectives

This report should provide the decision maker of Bambi a total overview of the Indian medical devices market and which factors should be taken into consideration when building market entry strategy. Additionally, recommendations for the company to enter the new market profitably will be delivered as well.

1.2.3. Deliverables

Table 1. Deliverables of this research

Deliverables		Context
1	Market research	Firstly, there will be an internal analysis to increase the understanding about Bambi and to define its strengths and weaknesses. Next, to that, an overview of the whole Indian medical market, especially in baby healthcare and the protocol for care and treatment of preterm babies will be examined thoroughly. The market size will be determined as well as the main players in the market, and potential user personas and characteristic. After this, three cities will be selected, as the suggested first destinations for Bambi. The output of this market research will help to answer the main research question.
2	Risks assessment	In the risk assessment part, there will be tables and figures to illustrate the risks that the company would face if it decides to bring Bambi Belt into the Indian market. The tables should include the name, the probabilities, and the consequences of the risks, based on the output of the market research above.
3	Recommendations	The recommended method of entering the Indian market will be explained based on the research findings.

1.3. The research objective and research questions

Two main research questions of this research are:

- *How attractive is the Indian medical devices market for Bambi?*
- *Which market entry mode will be the most suitable for Bambi to enter the Indian market?*

Based on the research questions, this research will be a descriptive and analytical research. First, this is a descriptive research because this research aims to describe the characteristics of the Indian healthcare market, especially in term of pediatric area, since the product that Bambi wants to bring to the Indian market is Bambi Belt, the medical device for the treatment of preterm babies. Furthermore, this research is also an analytical research since the second research question is about analyzing the entry scenarios to help Bambi choose the most suitable and effective mode for the company to enter the Indian market.

1.4. Demarcation

This research aims to get the decision maker of the Bambi the right information that he needs for making his management decision regarding entering the Indian market. Thus, the researcher is not responsible for making the decision for Bambi whether to enter the Indian market or not as well as the decision on which market entry strategy to use. The unit of analysis will include the private hospitals and the university hospitals in India and there are no public hospitals involved in this research, but this could be the later research.

1.5. Definition of terms

There are few medical terms that will be presented in this report. The terms will be explained as follows:

- *Preterm (Premature) infants (babies):* According to World Health Organization (WHO), preterm or premature babies are babies/infants who born before 37 weeks of pregnancy have been completed. Regularly, the pregnancy period lasts about 40 weeks (WHO, WHO's website, 2015).
- *Neonatal intensive care unit (NICU) or Intensive care nursery (ICN):* this term refers to the intensive care unit specializing in the care for premature newborn infants who need exceptional care and are often admitted into a specific area of the hospital. The NICU combines advanced technology and trained healthcare professional to provide exceptional care and treatment for the vulnerable premature newborn babies. The NICU often directed by one or more neonatologists and staffed by nurses and nurse practitioners (Stanford Children's Health , 2015).
- *Post IC - High Care:* This term refers to a special unit/department that will mainly focus on taking care of preterm babies who require an intensive and extra care. The babies that can be treated in this unit are normally born after 30 weeks of gestation and weight about 1000 grams.

- *ECG – Electrocardiogram* refers to the progress of recording the activities of the heart including hearing rate over a period by placing the sticking electrodes on the skin (Wikipedia, 2017).
- *LOI – Letter of intent* refers to the document that contains a declaration of the intention of the writer (Wikipedia, 2017). In this report, this document involves the agreements between Bambi and NICU's.
- *Kangaroo Mother Care (KMC)* refers to the practice of providing the continuous skin-to-skin contact between the mother and her newborn infants (WHO, Kangaroo mother care: a practical guide, 2003).

2. THEORY

2.1. Context analysis

2.1.1. *Preterm birth:*

According to the World Health Organization, Preterm is defined as babies born alive before 37 weeks of pregnancy are completed. There are sub-categories of preterm birth, based on gestational age: extremely preterm (<28 weeks); very preterm (28 to <32 weeks); and moderate to late preterm (32 to <37 weeks). The causes for premature births have not been fully specified, most preterm births happen spontaneously, while some are due to early induction of labor or caesarean birth, whether for medical or non-medical reasons. Recent research suggested that common reasons for indicated preterm births involved pre-eclampsia or eclampsia, and intrauterine growth restriction. Spontaneous preterm births are regarded as a syndrome resulting from multiple causes, including infection or inflammation, vascular disease, and uterine overdistension. Risk factors for spontaneous preterm births include a previous preterm birth, periodontal disease, and low maternal body-mass index. A short cervical length and a raised cervical-vaginal fetal fibronectin concentration are the strongest predictors of spontaneous preterm birth (Goldenberg, et al., 2008).

2.1.2. *Current method of preterm birth care*

Preterm babies in general require exceptional care and the less gestational age the babies are, the more intensive care they will need. Improved care for preterm infants can contribute in reducing neonatal and infants' mortality rate. Feeding, temperature maintenance, hygienic cord and skin care, and early detection and treatment of infections and complications including respiratory distress syndrome are crucial in caring for premature babies. Preterm infants who need more intensive care might be transferred to the NICUs, the units can provide specialized care for newborn babies with serious health problems. It is critical to keep the infants warm in incubators. While the babies are kept in the incubator, their vital signs, such as cardiac function (ECG), temperature and respiration, should be continuously monitored. The current method to monitor the vital signs is using the adhesive electrodes and wires attached to the electrodes and the hospital monitors. These electrodes need to be frequently replaced or repositioned to sustain reliable monitoring.

2.1.3. *Bambi Medical solution for preterm birth care*

Striving to reduce pain and stress in babies and support Kangaroo Mother Care, Bambi Medical has developed a new solution for taking care of preterm babies, whereby the attached electrodes are no more required. The product that Bambi Medical has developed called Bambi Belt, a soft, skin-friendly fabric, wireless monitoring device that obtain the same functions as the current treatment in NICUs. The new solution supports optimization of the skin-skin contact between mothers/fathers and their

babies while removing pain and stress for the babies while the vital signs of the babies are constantly monitored wirelessly. The belt operates by wrapping around the infant's chest. Sensors integrated inside the belt measure critical data in nonintrusive way, while a small transmitter and receiver allow wirelessly sending of the data to existing patient monitors. The soft, skin-friendly, and non-sticky texture of the belt erase pain and stress from the babies. Further, its wireless features makes it easier to take the baby out of the incubator and perform Kangaroo Mother Care.

2.2. Market attractiveness

Market attractiveness is the business term which is used to describe the interesting profit that one company can achieve by investing in a certain market and/or an industry. The more attractive the market is, the greater potential profit that they the company could achieve by investing in it (Business Dictionary, 2017). Hence, it is crucial for the company to perform various analysis to determine if this certain market/industry would be valuable for the company or it will burden the company's profit. There are several factors that can define the market attractiveness such as market size, growth, and market segmentation, etc. To determine the attractiveness of the market, the researchers use various of techniques, such as Porter's five forces analysis, MABA analysis, and DESTEP analysis¹.

The Porter's five forces model will be used in this report to study the powers in the Indian market and how Bambi can balance those powers and identify if the Bambi Belt will be profitable in the Indian market. Furthermore, the outcomes of Porter's five forces can also help to illustrate the risks that Bambi will have to face when entering the Indian market, so the company can get the idea of what are the risks and how to eliminate/manage them.

DESTEP is used in this report for the same objective as mentioned above – to determine the market attractiveness and to get the outcomes that Bambi can use to picture the market that the company wants to enter and adjust its policy to fit the market.

General framework for market attractiveness²

This framework was created by one group of Master of Business students in Tilburg University during their project period for Bambi. The framework is a general framework to judge countries worldwide and works as an automated decision matrix for the company to determine which one is the most favorable country to enter. This framework works by multiplying each criterion with a given granted weight factors. Originally these factors and weight are based on the perception of the students when comparing the countries in the European area, hence, it might be different or unsuitable for choosing the countries in Asia. Therefore, in this report, the criteria and weight factors might be different, based on the result of the desk research performed by the current researcher. Nonetheless, in respect of the original creators, the working principle of the framework is still the same.

¹ Explanation of these models will be presented in the appendices

² More details about the framework and its criteria will be presented in the appendices

2.3. International market entry strategy

2.3.1. *SWOT analysis*

After finishing the market research and define the target foreign market, a market entry strategy should be chosen at this stage. Concerning the selection of an appropriate entry mode, it is essential to understand the internal situation of the company. SWOT analysis is mostly used in this step to define the company situation including threats and opportunities as well as apply the information on the firm's strengths and weakness into the development of the market entry strategy. The outcomes of the SWOT analysis can be used to further investigate in confrontation matrix. Confrontation matrix is a component of the SWOT analysis while "Strengths" and "Weaknesses" are "confronted" with "Opportunities" and "Threats" with the purpose to generate the good strategy for the company. In the marketing plan, confrontation matrix usually plays a critical role since this is the result of the research that matrix serves as a foundation for the rest of the plan, both strategy and action plan.

Having said that, because of the importance of the SWOT analysis and Confrontation matrix, this report will make use of these two models to give the most useful information for the decision maker of Bambi to choose and develop the best market entry plan to enter India with Bambi Belt.

2.3.2. *Entry mode introduction*

Once the target market is chosen, the question arises as to the best way to enter this market. Choosing the right entry mode is critical for the success of the firm in the foreign market. Many companies discovered that an insufficient attention on selecting entry mode will become threatens for the firm's market entry plan and its globalization. It is likely for the firm to obtain the initial choice of entry strategy; however, this could become problematic for the firm in the foreign market. It is very difficult for the company to change the strategy once it is in place. It is very common for a few mistakes in the entry mode selection, as selecting an entry mode requires several complex research and studies and different entry plan is needed for each product in each foreign market. Entry plan/strategy is not only needed for the large conglomerates but also crucial for the small and medium companies as well. Every company should understand the idea of planning an entry strategy (Root, 1994).

The company can make the choice of the entry mode depends on the firm's desired level of control over the foreign market and the level of risk that the company is willing to take. This choice is flexible and changeable over time, as the company will earn more experience in the international market over time, and then becomes eager to take more risk to get more profit in return. Per Hollensen (2014), there are three major groups of market entry modes as export modes, intermediate modes (contractual modes), and hierarchical modes (investment modes). Each group contains various sub-categories (see Appendix 10).

2.4. Decision-making process (buying process)

The decision-making process (or buying process) refers to the journey the customers go through prior the purchasing. In the medical environment, the majority transactions are B2B and the process will be varied depends on the type of the equipment involved, the number of locations being delivered to, the receiving capabilities of those locations, and even the final delivery sites within the facilities themselves. In general, the buying process or decision-making process includes three main stages as awareness, discovery, and validation, each stage will include various steps. Though the process is varied, typically the buying process is as follows:



Figure 1. Typical buying process (LeadLiaison, 2011)

Buying units (or buying center) consists of all stakeholders who are involved in the buying process, mostly from various departments within the buying organization and contribute expertise such that internal and external factors are accommodated. In medical devices, the buying unit is also varied based on various factors such as the type of the devices involved, price, the type of the buying organization, and so on. In the European medical device market, there are two types of procurement, public procurement, and private procurement. Public procurement (*Figure 2*) involves public tenders, legal departments, procurement management department, and the central purchasing system. If the hospitals want to invest in a larger or more expensive medical equipment, the insurance companies will be involved. Private entities are free to choose either to follow public tenders or contact their own choice of suppliers. If the hospitals decide to negotiate with their own suppliers, the process will be simpler with only the decision maker of the hospitals, the doctors/nurses, and the financial department. The buying process will proceed as the typical buying process in *Figure 1*.

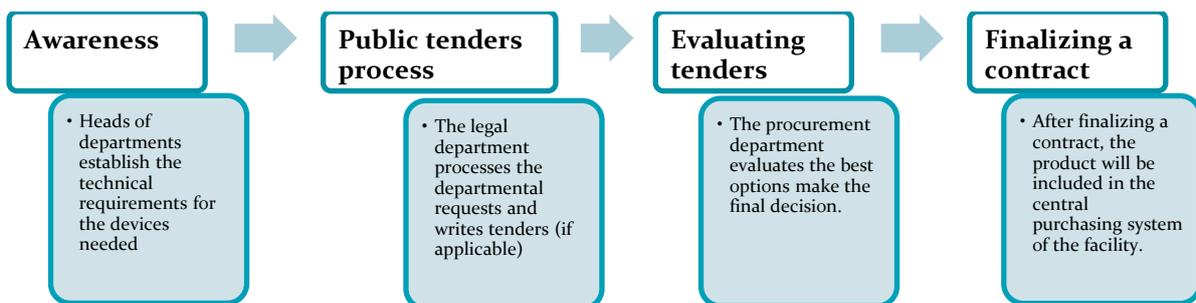


Figure 2. The Dutch public procurement for medical equipment (TforG Group, 2017)

3. RESEARCH METHODOLOGY

3.1. Research objectives and research questions

3.1.1. *Research objectives*

This research is conducted as a descriptive and analytical research to describe the characteristics of the Indian medical devices market and to analyze the internal and external situation, so that the researcher can gain the deep understanding of the market and have the insight of the entry scenarios to choose the most effective entering method for Bambi to enter India.

3.1.2. *Research questions – Sup research questions*

To be able to reach the objectives that mentioned above, it is needed to formulate clear research questions. Based on the objectives of the research and the situation of the company, there are two research questions which the researcher believes answering these questions will give the most useful information for reaching the research objectives as follows:

- Main research question 1: *How attractive is the Indian medical devices market for Bambi?*

As for answering the main research question above, it is necessary to answer these sub-research questions as following:

- 1) Which characteristics make India become the target market for Bambi, comparing with other Asian markets?
 - 2) How big is the market size of the Indian medical equipment market?
 - 3) Is there any barrier to enter the Indian devices market?
 - 4) Who is (are) the main player(s) in the market?
 - 5) Who is (are) Bambi Medical's direct competitor(s) in the market?
 - 6) What are the opportunities and threats that are waiting for Bambi in the Indian medical devices market?
- Main research question 2: *Which market entry mode will be the most suitable for Bambi to enter the Indian market?*

Like the main research question 1, to answer this question, there are certain sub-research questions as the following will be studied:

- 7) What are the strengths and weakness of Bambi (in terms of financial, personnel resource)?
- 8) What is the purchase decision-making/buying process in Indian medical devices market?
- 9) What do the potential customers expect from Bambi and its product?
- 10) Which factors might affect Bambi's market entry strategy?

3.2. Research design and strategy

This research is conducted using qualitative method which making use of both quantitative data and qualitative data because the researcher aims to gain the deep insights of the internal situation of the company as well as the external environment. Quantitative data is collected using mainly desk

research and qualitative data is gained mainly through the interview and literature. The design that the researcher will adopt for this research are desk research and field research, e.g. interviews.

In this research, there are two main research questions that need to be examined as follows:

Table 2. Research design for research question 1.

Main research question 1: How attractive is the Indian healthcare market for Bambi?		
<i>Sub-questions</i>	<i>Strategy/Design/Approach</i>	<i>Method/Models/Tools</i>
Which characteristics make India become the target market for Bambi?	Qualitative & Desk research	General framework for market attractiveness
How big is the Indian preterm birth care equipment market?	Desk research	DESTEP analysis
Is there any barrier to enter the Indian medical devices market?	Desk research	Porter's five forces analysis
Who is (are) the main player(s) in the market?	Desk research	
Who is (are) Bambi's potential competitor(s) in the market?	Desk research	
What are the opportunities and threats that are waiting for Bambi in the Indian market?	Desk research	DESTEP analysis & Porter's five forces analysis

- *Which market entry mode will be the most suitable for Bambi to enter the Indian market?*

This question can also be broken into several sup-research questions and the outcomes of these sup-research questions will contribute to realizing the second research question. The sup-research questions and the approach will also be presented in *Table 3* as follows:

Table 3. Research design for research question 2

Main research question 2: Which market entry mode will be the most suitable for Bambi to enter the Indian market?		
<i>Sub-questions</i>	<i>Strategy/Design/Approach</i>	<i>Method/Models/Tools</i>
What are the strengths and weaknesses of Bambi?	Qualitative research	Observation & SWOT analysis
What is the purchase decision-making/buying process in Indian medical devices market?	Qualitative research	Research questionnaire which was sent to doctors in Indian
What do the potential customers expect from Bambi and its product?	Qualitative research	
Which factors might affect Bambi's market entry strategy?	Desk research.	Theory

3.3. Population and Sample

3.3.1. Population

The chosen population is Indian pediatricians/neonatologist who work in private hospitals and university hospitals. This population was selected because the researcher wants to understand the perspective of the pediatricians towards KMC and the current treatment of preterm infants in India as well as the purchasing decision behavior in the Indian hospital.

3.3.2. Sample and sampling method

The samples used in the report are selected pediatricians/neonatologist who work for private hospitals in India. The doctors were selected based on their experience in the pediatric field, especially

in taking care of the preterm infant. Initially, the desired sample includes doctors from the university hospital, however, the researcher received no response from the university hospitals' doctors, due to various reasons. So, in the end, only pediatricians/neonatologist from private hospitals involved in the research.

The initial idea of the sampling method is theoretical sampling which the researcher will gather and analyses the general data first and decides what data to collect next and from which sample to develop the theory as it emerges (Glaser & Strauss, 2012). Unfortunately, because of the geographic distance and the Indian doctors are extremely busy and difficult to reach, in the end, the researcher used convenience sampling to draw the sample. Convenience sampling, as its name implies, is the sampling method in which the sample is selected because they are convenient. This sampling method is used to get a gross estimate of the results, without incurring the cost or time required to select a random sample.

3.4. Research Instruments

This research gathers desired data mainly from desk research and questionnaire to answer the research questions. The questionnaire used in this research contains 18 questions and aims to increase the understanding of the researcher about the purchase medical equipment decision-making process in the Indian hospital and the pediatricians/neonatologists' awareness of KMC as well as their perception towards using advanced technology in healthcare devices. The questionnaire was sent to 20 different Indian doctors in digital form via emails. The questionnaire, the list of the responders, and their responses are listed in the appendices.

3.5. Validity

Concerning the validity of the data used in this research, the researcher applied triangulation method to ensure the collected data are valid. Triangulation is the method used in qualitative research by the researcher to facilitate the validation of data by cross verification from two or more sources. Additionally, triangulation is especially useful in the research that used multiple methods to gather data for studying the same phenomenon (ResearchGate, 2017).

4. FINDINGS AND ANALYSIS

4.1. Findings

4.1.1 *How attractive is the Indian medical devices market for Bambi?*

Sub-research question 1: Which characteristics make India become the target market for Bambi, comparing with other Asian markets?

Bambi aims to pilot Bambi Belt in the commercial healthcare system in Asia, thus, in this research, four other Asian countries which have the preferable private healthcare sector were chosen randomly to compare with India. These four countries are China, Viet Nam, Indonesia, and Singapore. The main criteria used to evaluate the countries are market potential, political environment, and status

of the healthcare system. Each main criterion is broken down to small criterions to help the user of the framework can gain as much as possible the information about each country.

Table 4. General framework for evaluate market attractiveness

CRITERIA FRAMEWORK BAMBI MARKET ENTRY						
Criteria		India	China	Indonesia	Viet Nam	Singapore
Market Potential	Prematurely born babies ³	3,254,300	1,206,200	675,700	138,300	5,200
	Ranking	5	4	3	2	1
	Average stay in hospital ⁴	5.5	8.5	4.2	6.5	4.5
	Ranking	3	5	1	4	2
	Positive Culture Towards New Products (0-100)	90	65	50	60	75
	Ranking	5	3	1	2	4
	Premature birth rate ⁵	12.95%	7.08%	15.46%	9.43%	9.50%
	Ranking	4	1	5	2	3
Political Environment	Health expenses as % of GDP ⁶	1.4%	3.1%	1.1%	3.8%	2.1%
	Ranking	2	4	1	5	3
	Gross Domestic Spending on R&D ⁷	0.8%	2.1%	0.1%	0.2%	2.2%
	Ranking	3	4	1	2	5
	Legislation (0-100)	90	50	50	75	75
	Ranking	5	1	1	3	3
	Global Innovation Index Rank ⁸	66	25	88	59	6
Ranking	4	2	5	3	1	
Healthcare System	Health expenditure as % of private expenditure ⁹	89.2%	72.3%	75.3%	80.0%	94.1%
	Ranking	4	1	2	3	5
	Corruption Perceptions Index ¹⁰	40	40	37	33	84
	Ranking	3	3	2	1	5
	Access to advocates	60%	0%	0%	0%	20%
	Ranking	5	1	1	1	4
	Healthcare Quality rank ¹¹	112	144	92	160	6
Ranking	3	4	2	5	1	
TOTAL OUTCOME		3.8	2.9	2.2	2.9	2.7

³ <http://www.marchofdimes.org/mission/global-preterm.aspx#tabs-1>, World Premature Day Fact Sheet issued by WHO in 2015

⁴ OECD/World Health Organization (2012), Health at a Glance: Asia/Pacific 2012, OECD Publishing. <http://dx.doi.org/10.1787/9789264183902-en>

⁵ <http://www.marchofdimes.org/mission/global-preterm.aspx#tabs-1>

⁶ <http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS?locations=DK>

⁷ <http://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS>

⁸ <https://www.globalinnovationindex.org/gii-2016-report#>

⁹ <http://data.worldbank.org/indicator/SH.XPD.OOPC.ZS?locations=CN-IN-ID-VN-SG>

¹⁰ http://www.transparency.org/news/feature/corruption_perceptions_index_2016

¹¹ https://en.wikipedia.org/wiki/World_Health_Organization_ranking_of_health_systems_in_2000

As can be seen from the outcome of the framework, India got the highest score for market attractiveness at 3.8 and following closely by China at 2.9. Next to that are Viet Nam with 2.9 and Singapore with 2.7; and lastly is Indonesia with only 2.2 points. Therefore, India appears to be the most attractive and suitable for Bambi to introduce Bambi Belt after European market.

According to WHO's latest fact sheet issued in 2015, India is the country with the biggest number of premature birth, at 3,254,300 births and the number of deaths from preterm birth complications is 329,000 deaths. Premature birth and low-birth-weight have become the most common cause of children under-five deaths. Because of the increasing in preterm birth rate and low-birth-weight, recently, the importance and benefits of Kangaroo Mother Care (KMC) are considered in many research and studies in India. In 2009, an observation was organized in the NICU within one hospital in India to experience and test the KMC effect on low birth weight infants and the researchers concluded that KMC was found to be a safe, effective, and feasible method of care of low birth weight infants even in the NICU settings. Positive attitudes were observed in mothers, families (Parma, et al., 2009).

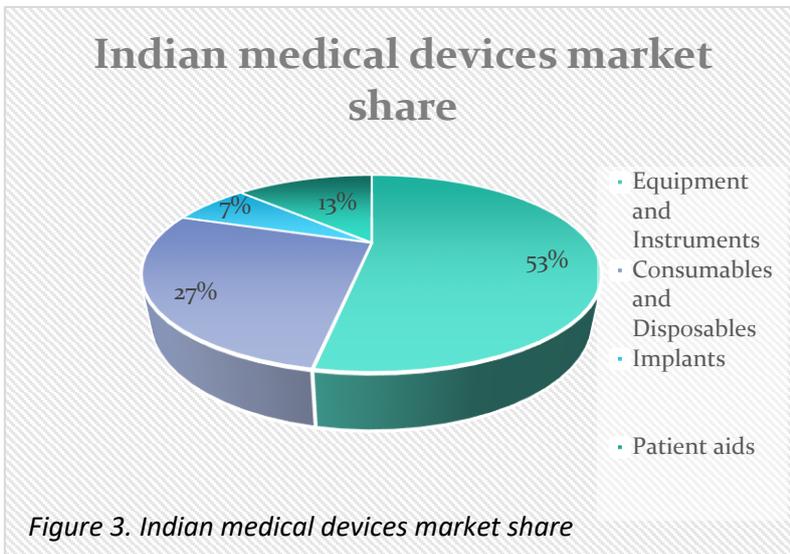
Additionally, recent studies show that the quality of NICU in India is grossly insufficient. Sundaram et al. (2014) stated in their study that majority of the units are well staffed and led by a neonatologist who was trained in India and overseas, yet, the availability of the medical facilities is not adequate. Thus, there is urgent in improving the quality and availability of medical equipment for NICU's in India now.

To conclude, the characteristics that make Indian become the best option for Bambi to pilot its product includes the huge number of annual preterm births, the percentage of private expenditure on healthcare, the awareness of the importance of KMC, the urgent in improving the quality of neonatal equipment, and the access to advocates. Though in some criterions of the framework, Indian does not obtain the highest score, Indian's overall outcome is the biggest among the other Asian markets.

Sub-research question 2: How big is the market size of the Indian medical equipment market?

The Indian medical devices market size is significantly smaller than the other foreign market such as US or China, however, per the latest report that issued by the Healthcare Federation of India, the Indian medical devices industry will grow faster than the global medical devices market by 2020. The current market size of the medical device market is USD 4.9 billion and is expected to grow up to USD 9 billion in 2020 with the CARG of around 15% (SKPGroup, 2016). The current market is compounded of four sectors as equipment and instruments; consumable and disposable; implants; and patient aids (*Figure 3*). Bambi belt belongs to the neonatal devices segment which is part of the equipment and instruments sectors. The current market size for neonatal devices is estimated at \$ 0.197 billion in 2014 and is forecasted to reach \$ 0.279 billion by the end of 2019 with the CARG of around 7.15 % in this period.

The neonatal equipment market is segmented based on the product which are NICU equipment, labor & delivery equipment, and other equipment. NICU equipment holds the largest share in the market and is believed to grow the fastest. NICU equipment includes thermal control devices such as radiant



warmers, phototherapy units, C-PAP, incubator, cardiopulmonary monitor, bill lights, blood pressure monitor, etc. These devices are used in the NICU to take care of critically ill infants who need special care and treatment. Next to that, the labor & delivery equipment contains antepartum monitors and intrapartum monitors, and

this group holds the smallest share of the market. The other NICU and Labor & Delivery devices such as respiratory assistance devices, delivery systems, and monitor equipment are classified as the last segmentation of Indian neonatal devices market. Most of the products in this segmentation are imported.

- Estimated market value for Bambi

The Bambi-Belt disposable will initially be targeted at the Neonatal Intensive Care Units in hospitals and specifically, for babies born very premature between 24 and 32 weeks of gestation. Per the latest report from *EveryPremie.org*, there are 165,800 babies born very premature (> 28 weeks) in 2013 in India. The average length of stays of the Indian very premature infants is unknown, thus, the researcher used the average length of stay of premature babies in European, which is 42 days (12 days in NICUs + 30 days in post IC – High care) to grossly estimate the potential market value for Bambi in Indian market. Also, the researcher assumed that Bambi Belt shall be sold in the Indian market with the offered price at €40 per belt (the price that is already validated in the Dutch market). The estimated market value for Bambi in Indian market would be as follows:

Table 5. Estimated market value for Bambi

	Length of stay	# of very premature babies	Price per belt (€)	Potential # of belts	Potential market value (€)
NICU + Post IC – High Care	42	165,800	40	2,321,200	97,490,400

Sub-research question 3: Is there any barrier to enter the Indian medical devices market?

The Indian medical devices market becomes an attractive market for foreign manufacturers for many reasons, and one of those is because of the openness of the market for foreign firms to enter. In recent years, to improve the quality of healthcare facilities, the Indian government has been issuing numerous policies and trying to readjust its regulation including 100% FDI in medical devices which will lower the barrier for the foreign manufacturers to enter the Indian neonatal devices market.

Sub-research question 4: Who is (are) the main player(s) in the market?

The Indian medical devices market is disintegrated because of the existence of various small and large players. The key products and key players of each market sector are listed in *Table 6*.

Table 6. Market segmentations - Key products - Main players

Sectors	Market size	Key products	Key players	Note
Equipment and Instruments	USD 2.67 billion	MRI machines, CT scanner, ultrasound machines, dental drills, dental chair, dental x-ray machines, NICU equipment, labor & delivery equipment, etc.	GE Healthcare, Phillips Healthcare, Schiller Healthcare, Danaher Corporation, Mectron India, Roche Diagnostics, Accurex Bio-medical, Narang Medical, etc.	Approximately 51% of the medical equipment that are imported from the overseas are from this sector.
Consumables and Disposables	USD 1.31 billion	Syringes, needles, catheters, bandages, and dressings	Hindustan Syringes, Lotus Surgical, Suture India, B Braun, and Beckton Dickinson.	Syringes, needles, and catheters compose a major part of this sector with the market size surpass USD 1 billion en masse. Domestic players possess the larger market share in this sector.
Implants	USD 0.35 billion	Knee and hip implants, artificial joints, and dental fixture	Smith & Nephew, Narang Medical, Zimmer Holding, and J&J	This sector is highly import driven, dominated by the USA, and is expected to grow the fastest. Few domestic players are gaining advantages by offering customized design for their customers.
Patient aids	USD 0.65 billion	Hearing aids, pacemaker, and artificial respiration apparatus	St Jude Medical, Shree Pacetronics, Medisafe International, and Medtronics	The major part of this sector is formed by hearing aids and pacemaker and constitute 70% of the market generally.

Sub-research question 5: Who is/are Bambi's direct competitor(s) in the market?

Currently, there is no direct competition for Bambi in the Indian medical device market and, as the matter of fact that there is no company develop the same products and target the same group of consumers as Bambi Belt in the market. Even though there is no direct competition in the market, there are several companies can be considered as the indirect competitors for Bambi. Indirect competitors refer to the company who develop the products that have the same features as Bambi Belt but target other groups of consumers or target the same consumers but have fewer features than Bambi Belt. Bambi Belt is categorized as the wearable products that monitoring the vital signs of the premature babies inside or outside the incubators. At present, there is no big player in this category, however, since late 2000', India has started to become the attractive market for technology start-ups in diverse fields and sectors, and the biggest trends in the Indian startup field are ECG monitoring and patient monitoring using a wireless device. The companies will be listed in *Table 7* and will be classified based on its products' target users as *adult patient* and *babies/infants*.

Table 7. Indirect competitors¹²

Group	Company's name	Product
<i>Wearable device that wirelessly monitors ECG and vital signs of adult patients</i>	Ten3t Health	Cicer
	Cardiac Design Labs	MIRCam System
	Masimo	Radius 7
	Sattva Medtech	Sattva Fetal Lite
<i>Wearable device for new born infants</i>	Khusi Baby	Khusi Baby
	Neopenda	Neopenda's baby hat
	Bempu	Bempu device
	Spotwo Bootie	Spotwo Bootie
	DK Tech Innovation	Baby Check
	Mon Devices	MonBaby

Sub-research question 6: What are the opportunities and threats that are waiting for Bambi in the Indian medical devices market?

- Opportunities
- *A huge number of premature birth:* Indian is accounted for the country with the biggest number of premature birth. In 2015, there are more than 3 million babies born too soon in India, nearly

¹² More details about the potential competitors can be found in the Appendices.

85% of these babies born between 32 and 37 weeks, meaning they do not require to intensive care to survive, leaving 15% of more than 3 million, more than 450 thousand babies will become the potential users of Bambi Belt (EverypreemieScale, 2016).

- *Adoption of KMC as a solution to control the mortality rate of children under five years old and infants:* Premature birth is indicative to be the most common cause of death of under five years old children in India. In 2013, the under five children death rate was 48/1000 and the total number of deaths was more than 1 million. Recent studies stated that KMC and its benefits are being considered as a helpful way to care for premature babies and could prevent the preventable deaths related to premature birth and low birth weight in many research in India. Positive attitudes towards KMC were noticed not only among the doctors and nurses but also in parents and families.
- *Establishment of India Newborn Action Plan (INAP):* India Newborn Action Plan (INAP) was launched in September 2014, for accelerating the reduction of preventable newborn deaths and stillbirths in the country. The protocol prioritizes those babies that are born too soon, too small, or sick—as they account for the majority of all newborn deaths, by maximizing the skin-to-skin contact between the infants and their parents.
- *Increasing number of high-end private hospitals:* As the healthcare market enlarging and attracting patient from not only inside India but also tourism medical, the number of private hospitals is also raising. More private hospitals are now willing to make huge investments in their infrastructure and medical equipment to improve their service and gain market advantages. Most of the investments are for advanced technology facilities.
- *Beneficial policies for foreign investment:* Currently, most of the medical devices are not regulated, except some devices are classified as “drugs” and are regulated under India’s Drugs & Cosmetic Act and Rules (DCA). CE marking is not a requirement in India. On January 31st, 2017, the Indian Ministry of Health and Family Welfare released a media statement that it had notified the Medical Device Rules 2017 as a replacement of DCA, which will have effect from January 2018. The new regulations indicate that manufacturers interested in registering their medical devices in India must supply evidence of prior regulatory authorization in the US, Canada, Europe, Australia, or Japan, as well as proof of approval in their home market. Additionally, each manufacturing facility must be registered.
- *No direct competition in the market:* As mentioned above, there is no direct competition for Bambi in the Indian medical devices market, as most of the players in the market are either target the adult patients or using adhesive electrodes in their products. The only competitor of Bambi Belt in the marker is the disposable adhesive electrodes that manufactured mostly by the domestic players such as Medico Electrodes International Limited and Micro Med Charts Manufacture.

However, on the scale of medical benefits and quality of care for premature infants, Bambi Belt are more advantaged.

- Threats

- *Patent protection:* According to the 2014 International Intellectual Property (IP) Index by the US Chamber of Commerce's Global Intellectual Property Center (GIPC), India's percentage score has fallen from 25 per cent in 2012 to 23 per cent (Agarwal, 2014). Correspondingly, it is crucial for new companies to have their IP well protected before entering the Indian market to avoid losing their product's unique characteristics to competitors.
- *Unfamiliar market:* For Bambi, Indian medical devices market is a brand-new market, which the company has very limited practical experience about.
- *New entrants (startups) enter the market:* It is estimated that India has at least 150 start-ups at several stages of development with a major focus on ECG and patient monitoring as point-of-care screening and other diagnostic tools for hemoglobin, glucose, etc. Moreover, UNICEF is shifting its focus on the premature babies' well-being and running numerous project on monitoring premature or critically ill infants. There are several small and medium companies as well as NGOs who are working on wearable devices that can wirelessly monitor ECG and vital signs of the patients and either send the data directly to the doctors or update the data on the shared "cloud".

4.1.2. Which market entry mode will be the most suitable for Bambi to enter the Indian market?

Sub-research question 7: What are the strengths and weakness of Bambi (in terms of financial, personnel resource)?

- Strengths

- *Marketing strengths:* Bambi has employed a Chief Marketing Officer who is highly experienced in B2B marketing, communication, and branding. Further, the company receives guidance and advices from the supervisory board which includes several experts in the high-tech industry as well. Additionally, Bambi's CTO is originally from India and his network will make a great contribution to the company's market entry strategy.
- *Personnel strengths:* The founder of Bambi is Prof. Dr. Sidarto Bambang Oetomo, who has been a pediatrician for more than 35 years and has obtained an enormous network in pediatric and neonatology field. His knowledge in neonatology, especially in the medical need of the premature infants allows the company to have a deep understanding of the problem and bring the best solution to solve that specific problem. Moreover, his reputation also plays a critical part in creating the brand name for Bambi and differs the company from its competitors.
- *Organizational strengths:* Thanks to its flat and open structure, Bambi's structure is more flexible than the big organization, and its communication flows are easier to get through every team

member. In case there is change or problem occurs in the industry, it would be easier for Bambi to fix the problem within the company or change its model to adapt the changes of the industry, if necessary according to the situation. Another strong point of a young start-up company comparing with the large organization is the team chemistry. In Bambi, there is no hierarchy and egoism in their working policy. The team members work closely with each other towards the same objectives, hence, naturally, the relationship between the team members become stronger, the employees will feel more committed to the company, and eventually become more productive with their jobs. Lastly, the guidance from the supervisory board is a great contribution for the company advantages. The board consists of a various expert with a diverse background who can give the company advice in every aspect of the company activities. As a young company, the help from those experts is very valuable for Bambi in its developing phase as well as when the company enters the market.

- *Product strength:* Bambi Belt is considered as the first patient worn vital sign monitoring product in the world that aim for the niche market of premature babies in the NICUs. Its benefits are recognized and validated by various doctors, nurses, and experts in neonatological filed in the Netherlands. The biggest benefit that the belt brings to its users is that it promotes KMC thanks to the wireless function. Reducing stress and pain while increasing KMC leads to decrease in healthcare cost for premature infants.
 - Weaknesses
- *Organization weakness:* Bambi Medical's weakness is the company is still in its developing phase and not yet fully mature. Even though the key functions of the company are held by several experts in the industry, the company is still missing certain parts such as supply chain, financial and accounting, or sales department. Moreover, the limited human resource is also one of the problems for Bambi Medical. As the company grows, the jobs list will be expanded, and thus, it requires more personnel. Disproportionation between the number of employees and the number of jobs need to be done puts high pressure on the current employees and that leads to unproductive works.
- *Financial weakness:* The initial funding for Bambi Belt was accomplished using Leapfunder platform and Bambi Medical managed to obtain more than half a million euros within the timeframe. This funding enables the chance for the company to develop and tuning the product as well as to conduct research and studies to prepare for the first sales. Nonetheless, to launch the product to the market, it is required to have the clinical trials and obtain a CE marking for the product. Additionally, more money is required for the production chain to be built and to enter the international market as well. Looking at the financing situation of Bambi Medical now, the company will need to have more financial resource to allocate for all the related cost. Bambi Medical is seeking additional funding through private investors of up to 3 million before the end

of 2017 and is looking for subsidies through various government programs. To sum up, the limitation in financial resource becomes the financial weakness of Bambi Medical.

Sub-research question 8: What is the purchase decision-making/buying process in Indian medical devices market?

The purchasing procurement for medical facilities in Indian hospitals often occurs as a private procurement because of the domination of the private hospitals in the Indian healthcare system. The private procurement in India does not involve the legal department and central purchasing center. The hospitals are liberated to choose either follow public tenders or find and negotiate with the suppliers by themselves. The process contains three main stage as awareness, discovery, and evaluating. Each stage will be divided into different steps based on the type of the type of products involved. The process is decentralized, meaning there is no organization control the purchasing process of the whole hospital, but the authority is granted to the departments. If the investment is simple and not too costly, the department can make the decision to purchase items necessary as per their requirements, in case the investment is too expensive and complex, there will be more departments, such as financial department or the direction board, involved in the process. More so, because of the commercial environment, the marketing department is typically involved in the process, if the purchasing of this product can contribute to building up the reputation of the hospitals.

Sub-research question 9: What do the potential customers expect from Bambi and its product?

Bambi Belt is the product that was designed for the premature infants in the NICUs, thus, its potential buyers must be the hospitals that have NICUs and obtain a certain interest in high-tech medical devices. Private hospitals are more willing to invest in their medical equipment, and their purchasing process is simpler than the public/government hospitals, they can be the potential buyers of Bambi Belt in the Indian market. Besides that, university hospitals would be considered as potential buyers of Bambi Belt as well since they are interested in experiencing new technology.

Additionally, India is an enormous country, it is not possible for Bambi Belt to target every private hospital in every city in the country at its first time enter the market, hence, there will be three cities that will be selected as the initial target for the company to approach. The criteria for selecting the potential cities for Bambi are population, economy, infrastructure, and quality of healthcare system. The top three Indian cities that satisfy all the criteria are Chennai, Gurugram, and Mumbai. There are numerous private hospitals which have the most advanced technology medical facilities located in these cities and these cities are leading in number of patients served, both domestic and foreigners (medical tourist).

Chennai is the fourth largest city in India and is the capital city of the Indian state called Tamil Nadu. For economy, Chennai was recently rated as having the highest quality of life among Indian cities and stands in the top most productive cities in the country. Healthcare sector is rapidly developing in Chennai. The city obtains world-class medical facilities, both in the private sector and the public sector

and has the bed ratio of 2.1 beds per 1,000 population against the national ratio of less than 1 bed per 1,000 population, make it higher than any other cities in the country. Major hospitals chain in Chennai includes Apollo Children Hospital, Gleneagles Global Health City, and Fortis Malar Hospital.

Gurugram (Gurgaon) is the city located in the northern India and is known as Millennium City. Following rapid urbanization, Gurugram has become a leading financial and technology hub with the third-highest per capita income in India. As the economy growing, the healthcare sector in the city is advancing accordingly. With the help of the government and the improvement in infrastructure, the number of private hospitals is raising and leads to the high level of competition, which forces the hospitals to make huge investments in their facility to be competitive.

Mumbai locates in the west coast of India, is the most populous city in India and the capital city of the Indian state of Maharashtra. As the biggest city (by population), Mumbai becomes the financial and commercial capital city as it generates 6.16% of the total GDP. Like Gurugram, as the city's economy growing, it contributes greatly to the improvement of infrastructure, quality of life, and healthcare facilities. Following the internationalization, there has been an increasing number of international private hospitals in Mumbai, resulting in making Mumbai become the leaders in healthcare service. Major hospitals in Mumbai obtains world-class equipment and has been constantly improving themselves by investing in most advanced technology devices.

After top three cities were chosen, several private hospitals are selected as the potential buyers of Bambi Belt and listed in *Table 8* and *Table 9*. *Table 8* includes private hospitals that equipped with NICUs and obtains a certain interest in advanced technology devices. Name and location of universities hospitals will be listed in *Table 9*. More details about these hospitals can be found in the Appendices.

Table 8. Potential buyers (Private hospitals)

Hospitals' name	Location
Fortis Memorial Research Institute	Gurgaon
Max Health Care Hospital	Gurgaon
Bharati Hospital	Chhattisgarh
Motherhood Women & Children's Hospital	Bengaluru
S.L Raheja Hospital	Mumbai
Surya Child Care – Surya Mother and Child Superspeciality Hospital	Mumbai, Pune
Bai Jerbai Wadia Hospital for Children	Mumbai
Apollo Children's Hospital	Multiple locations across the country
Kanchi Kamakoti Childs Trust Hospital	Chennai
Cloudnine Hospital Chain	Chennai, Bengaluru, Mumbai, Gurgaon, Pune

Table 9. Potential buyers (University hospitals)

Hospitals' name	Location
All India Institute of Medical Sciences	New Delhi
IITM Institute Hospital	Chennai
Central India's Child Hospital and Research Institute	Maharashtra

Indira Gandhi Institute of Child Health	Bengaluru
Institute of Child Health, Kolkata	Kolkata
Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute	Mumbai
Deenanath Mangeshkar Hospital & Research Center	Pune

Bambi Belt is a unique product, using advanced technology and target the small-scale market of premature babies. Consequently, when a unique product is available in the market, the potential buyer will expect a product demonstration to see how it works and training on how to use the products. More so, an advanced technology product is commonly complex and difficult to be repaired by a typical engineer, the buyer will expect the seller to offer good after-sales services and 24/7 customers support, to avoid or limit the idle time caused by the problem related to the products. The questionnaire’s result¹³ showed that 70% of the responders stated that they expect Bambi to offer a product demonstration and 60% expect after-sales service; 70% of the responders want to have a training on how to use the product and 30% of them expect 24/7 customer service. Furthermore, one responder claimed that they would expect a discount price for their routine order.

Sub-research question 10: Which factors might affect Bambi’s market entry strategy?

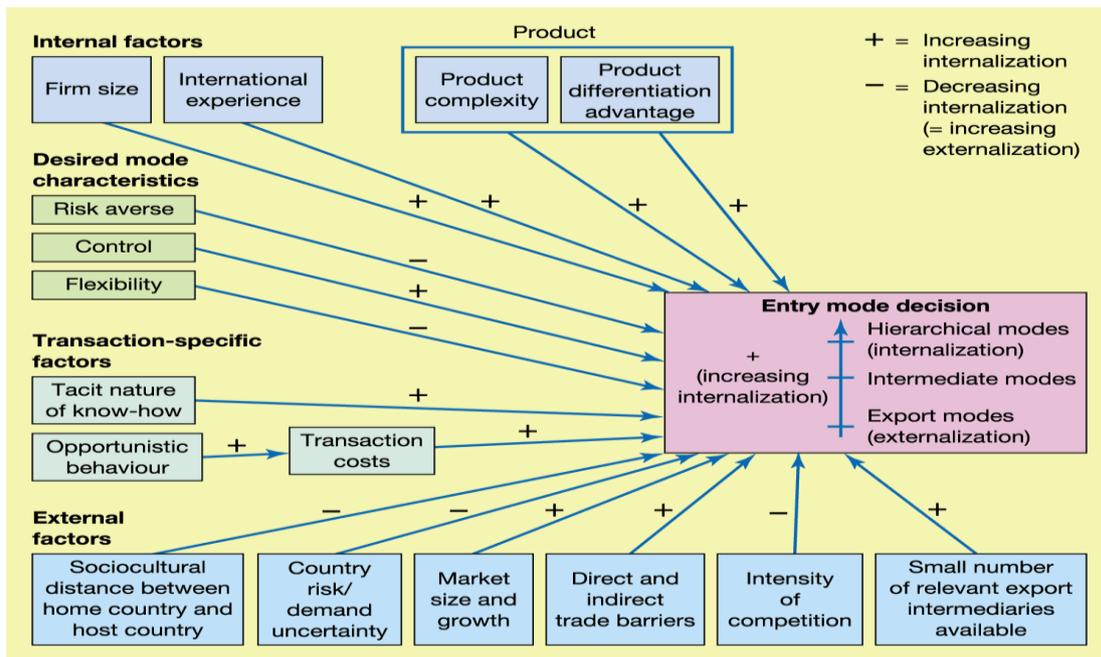


Figure 4. Factors affecting the foreign market entry mode decision (Hollensen, 2014)

Bambi’s choice of its Indian market entry strategy is the result of various, often conflicting, forces. Generally, market entry strategy should be based on the risk in the market and the company's desired level of control over the strategy, as well as the expected contribution to profit. Hollensen (2014) believed that there are four groups of factors that influence the firm's choice of entry mode. These four groups are internal factors, external factors, desired mode characteristics, and transaction-

¹³ Full result of the questionnaire and the details of the responders can be found in the Appendices.

specific behavior. These groups of factors influence the firm's choice of market entry mode in a way that these factors can increase or decrease the internalization level of the entry mode decision, making it become internalized or externalized. The more internalized the company is, the more likely they would select a market entry with high level of control, e.g. hierarchical models, while if the company is more externalized, they would likely to prefer a market entry that have lower risk, e.g. export modes. The factors and their direction of influence will be illustrated in *Figure 4*.

➤ **Conclusion for research question 2:**

Per answers of the sub-research questions above, it is concluded that hierarchical mode is not suitable for Bambi to expand its business, and export modes are the most suitable one. Though distribution model is believed to be the most preferable method for a small company to be internationalize, however, this method is not recommended in the Indian medical devices market. The distribution system in India is disorganized and not preferred by hospitals. Based on the potential customer analysis and the expectation of the customers, enter the Indian medical devices through export house/export management or piggyback model have more advantages.

One of the main reason for using the export house is the minimize assessed contribution and further cost. Export house or export management companies are specialist companies, who work as an export department of the manufacturer. Export house acts as an intermediary in between the manufacturer and the buyers, who probably do not aware of each other, and conduct business in the name of the manufacturer it represents. It handles the necessary documentations, and its knowledge of the local market such as purchasing behavior and government regulations is proven to be useful for Bambi in an unfamiliar market like India. Bambi would not be involved in the foreign sales of the product in the Indian market, however, the company still have authority over the sales of its product in the foreign market as the sales contracts are negotiated in the name of the company, and all the quotation, orders are subject to confirmation of Bambi to become effective.

On the other hands, the biggest advantage of piggyback is Bambi can conveniently introduce its product to the Indian market, without having to build its own distribution system. In piggybacking, Bambi will be the "rider" and deal with a larger firm – "the carrier" which already operates its business in the Indian market, and is willing to act on behalf of Bambi. It is commonly that the carrier will retain the brand name of the rider's product and either put it in the carrier's product catalogue to promote or have an agreed promotion with the rider. The rider then uses the carrier's distribution system for its product foreign sales. This is a recommended option for Bambi, as it allows the company to get its product enter the Indian market easily without expensive investment, and still earning practical experience by observing the way the carrier handles the sales process. Eventually, Bambi will be able to take over its own export and sales transaction.

4.2. Applied market research analysis

4.2.1. *Porter's five forces analysis*

The global medical devices market has observed an accelerated development in the developing market in Asia, especially in China and India, thanks to the expansion of the biggest tradition markets US, EU, and Japan. Indian medical devices market today because of the rapid economic development, increasing trade liberalization, growing acceptance for advanced, technological products and an expanding healthcare segment, has become a lucrative market for medical devices industry. Most of the big players have established a permanent base in the country either through R&D facilities, manufacturing, or trading offices. A detailed analysis of the Indian medical devices market applying Porter's five forces model enables the chance for the company to obtain a deep understanding of the characteristics of this industry.

A. *Barrier to entry*

The barrier to enter Indian medical device market, in terms of regulations, is generally low. Currently the medical devices in India are mostly not regulated, except the 10 devices in the Notified Medical Devices and IVDs list, and all it needs for the foreign medical devices to enter the market is the import license. Nonetheless, this regulation will be replaced by the new *Medical Devices Regulations 2017*, which will be effective from January 2018. Even though the new regulations are stricter, it is still easy for Bambi to enter the market, since the new rules indicates that clinical trials in the European countries are accepted in India, and if the company can provide the proof of safety which issued by the manufacturer's country, for example CE marking, the devices can be registered in India, without further investigating. To sum up, the barrier to entry in the Indian market is low.

B. *Bargaining power of suppliers*

As mentioned above, global medical devices market has been showing significant development and expansion, resulting in the numerous options of the suppliers for the medical devices manufacturers to choose in various countries and even in different industries. From this point of view, because of the large range of selection and easy to be substituted, the bargaining power of suppliers in this industry is weak. Nonetheless, there are several factors that prevent the producers to switch their suppliers. These factors are switching cost and forward integration (UKEssays, 2013). Switching cost refers to the cost that occurs when the company change from one supplier to another. Forward integration happens when a supplier wants to become a direct competitor in the market that it serves. This only applied to those suppliers, who provide complicated components that are critical to the producers of medical devices. Combining two perspectives, the bargaining power of the suppliers is moderate in this industry. In Bambi Medical's case, since the company is small and lacks patent protection, as well as the product is required various complex and essential components, the power of its suppliers will be stronger than the ones in the same market.

C. *Bargaining power of customers/buyers*

Medical devices market's trades are mostly B2B, which means the buyers/customers in the medical devices market are typically organization such as hospitals, clinics; and the prices that involved in this market are decided by the negotiations of the buyers and sellers and varied in different trades. This results in a predominance of the bargaining power of the buyers in determining the prices. Besides, there are various factors that can influence the bargaining ability of the buyers in medical devices market such as frequency and quantity of the orders, seller's market, and the product quality.

D. *Threats of substitutes*

To be able to fully substitute a product, it is required the substitute product to obtain the ability to perform the same function as the substituted product. At present, the only product that can substitute Bambi Belt in the Indian market is the adhesive electrodes that are fixed on the chest of the infants. These electrodes are then connected to the monitor by cables and wires. Therefore, the threats of substitutes can be defined as weak in this case. However, as mentioned above, Indian is becoming the attracting hubs for numerous healthcare startups, and the biggest trends in the Indian healthcare market are ECG monitoring and medical products that can improve the care for preterm infants, the possibility that there will be a substitute product in the market is moderate.

E. *Existing rivalry*

Indian medical devices market is the market that worth USD 4.9 billion currently and is expected to grow up to USD 9 billion in 2020. In this market, there are various players that are constantly competing with each other. It is estimated that there are about 800 manufacturers that provide medical devices in this market, most of them are based in US and EU (SKPGroup, 2016). Due to the growth in healthcare expenditure and the medical tourism as well as the increasing privatization in the healthcare sector in India, Indian medical devices market become a promising market for foreign manufacturers as well as domestic ones. Correspondingly, the existing competition in the market is very strong. However, this competition level is not applicable for Bambi due to the unique characteristics of its product and target market. Presently, there is no direct competition for Bambi in the market but there is a probability that the rivalry level will increase as the government and UNICEF are shifting their attention to the well-being of the premature infants – one of the urgent problems in Indian healthcare.

4.2.2. *DESTEP analysis*

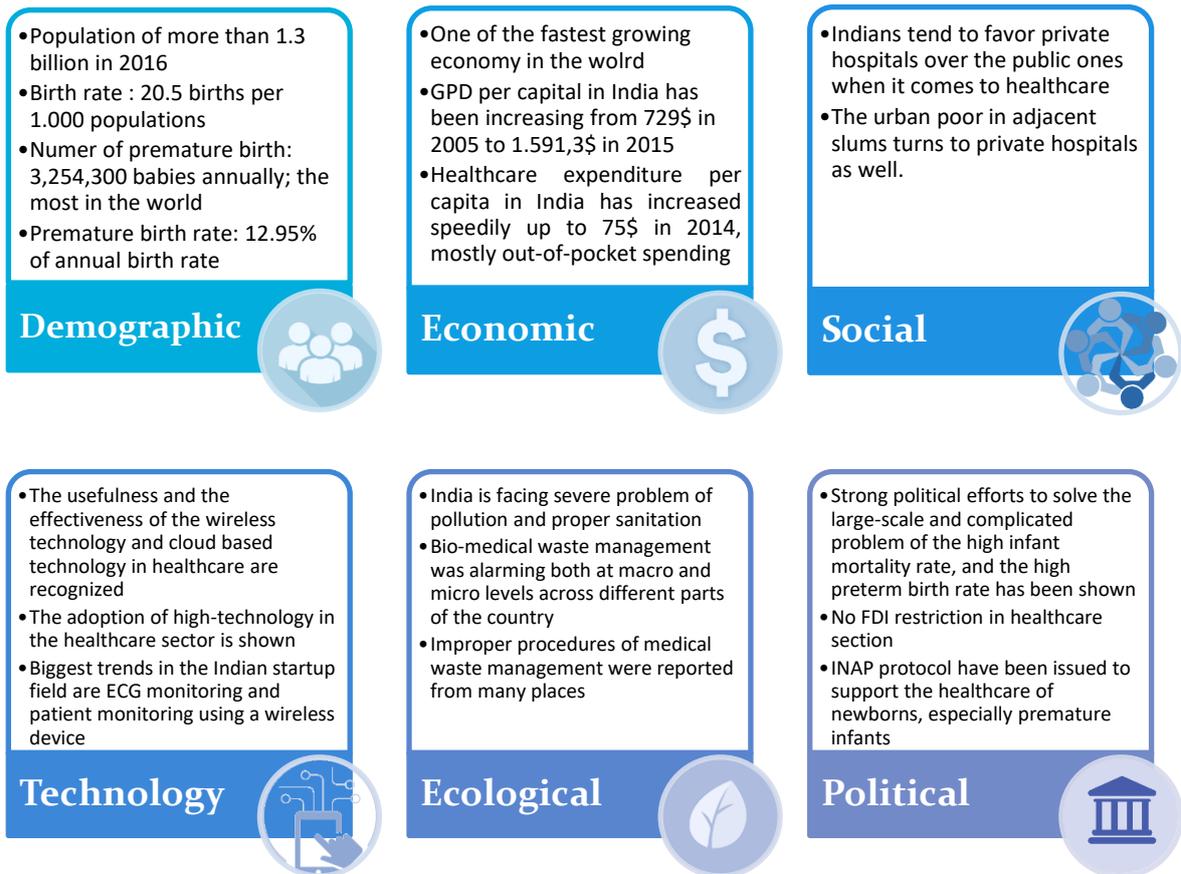


Figure 5. *DESTEP analysis*

4.2.3. *MABA analysis*

Table 10. *Market attractiveness*

Market	Market size (0.4)	Market growth (0.1)	Intensity competition (0.1)	Profitability (0.2)	Market stability (0.2)	Total
India	100	75	25	100	75	85
China	75	50	75	75	50	67.5
Indonesia	25	25	25	25	50	30
Viet Nam	25	50	25	50	50	37.5
Singapore	25	50	25	50	75	42.5

Table 11. *Business Attractiveness*

Market	Customer access (0.3)	R&D (0.2)	Legislation (0.2)	Price (0.2)	Resources (0.1)	Total
India	75	50	100	75	50	72.5
China	25	50	25	50	25	35
Indonesia	25	25	25	50	25	30
Viet Nam	25	50	50	25	25	35
Singapore	50	50	25	50	50	45

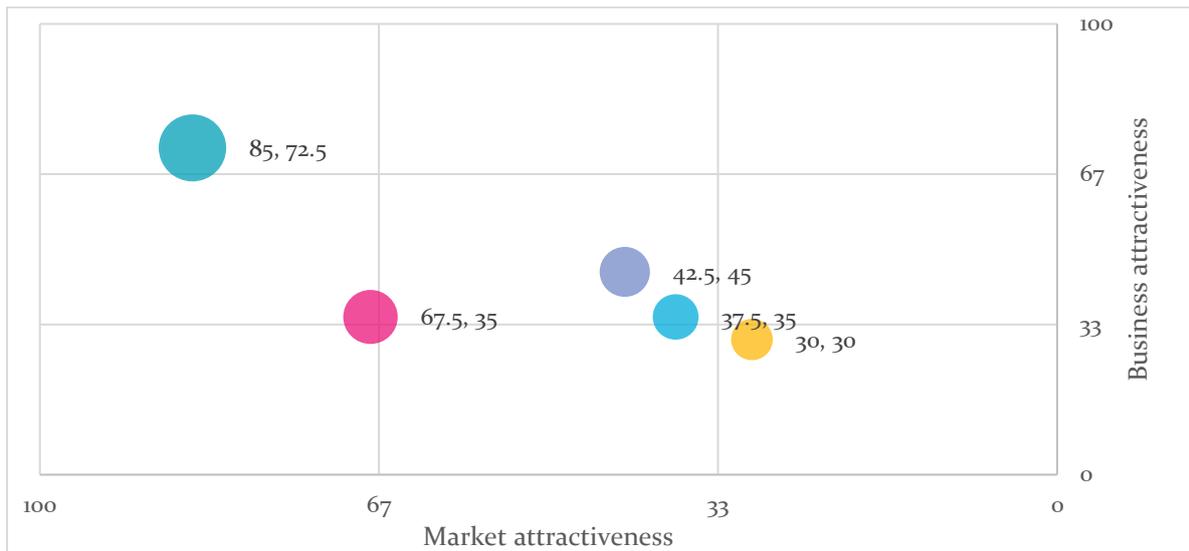


Figure 6. MABA analysis

4.2.4. SWOT analysis

Table 12. Internal and External analysis – SWOT analysis

Internal Analysis	External analysis
<u>Strengths</u>	<u>Opportunities</u>
<p>S1. Experienced personnel in marketing and branding</p> <p>S2. Key personnel with appreciated reputation and network in the industry</p> <p>S3. High flexible organization and strong team chemistry</p> <p>S4. The product support KMC</p> <p>S5. Unique product in the niche market of wireless monitoring for preterm babies</p> <p>S6. Product’s benefits are recognized and validated by professional in the industry</p>	<p>O1. Huge number of premature birth</p> <p>O2. Adoption of KMC as a solution to control the mortality rate of newborn and children under five years old</p> <p>O3. Establishment of India Newborn Action Plan (INAP)</p> <p>O4. CE marking is not required now. Clinical investigation in European countries are accepted in India.</p> <p>O5. Increasing number of high-end private hospitals</p> <p>O6. No direct competition in the market</p>
<u>Weaknesses</u>	<u>Threats</u>
<p>W1. Limited human resource, and financial resource</p> <p>W2. Young company</p> <p>W3. Production chain and supply chain have not been built.</p> <p>W4. The product has not obtained CE marking</p>	<p>T1. Low International Intellectual Property (IP) Index</p> <p>T2. Unfamiliar market</p> <p>T3. New entrants (Startups companies) who associate with UNICEF to develop products in wearable medical devices for neonatal healthcare</p>

Table 13. Confrontation matrix

		Opportunities						Threats		
		O1	O2	O3	O4	O5	O6	T1	T2	T3
Strengths	S1	0	0	0	0	0	1	0	3	0
	S2	0	3	0	0	0	0	0	2	0
	S3	0	0	0	0	0	0	0	1	0
	S4	0	1	2	0	1	0	0	0	1
	S5	3	2	3	0	2	3	3	0	2
	S6	1	1	3	1	3	2	0	0	3
Weaknesses	W1	0	0	0	0	0	0	3	3	1
	W2	0	0	0	0	0	0	3	2	1
	W3	0	0	0	0	0	0	0	1	0
	W4	0	0	0	3	0	0	0	0	0

Table 14. SWOT strategies

	OPPORTUNITIES	THREATS
STRENGTHS	Strengths – Opportunities Strategy - S5 + O1 - S2 + O2 - S5, S6 + O3 - S6 + O5 - S5 + O6	Strengths – Threats Strategy - S1 + T2 - S5 + T1 - S6 + T3
WEAKNESSES	Opportunities – Weaknesses Strategy - O4 + W4	Weaknesses – Threats Strategy - W1, W2 + T1; W1 + T2

4.2.5. Risk assessment

Names of risk	Explanation	Probabilities	Consequences
Doctors' uncertainty towards the product	"Seeing is believing" is the most common approach in business in India. Indian, in general, are risk averse, so when doing business, they want to be sure about the products before making an investment. The hospitals might have some doubt about the product if the company does not have the physical product and the product demonstration. More so, hospitals	High	This risk might affect the company's strategy. The company should build up a good communication plan and customer relationship management.

	also required a constant communication.		
Doctor perceive the belt as a non-economic product	<p>One of Bambi Belt's proposition is support KMC. KMC is believed to reduce the length of stay of babies in the incubator up to 2 days less. Though this statement has not been confirmed yet, this could lead the hesitation of the hospitals, in terms of financial. Though the quality of care is improved a great deal thanks to Bambi Belt, the fact that the belt might increase the cost of care while reducing the time of the length of stay (=reduce profit) will make the hospitals perceive the product as a non-economic product.</p>	Moderate	<p>This will not affect the company strategy much since this is purely the perception of the hospitals. However, the company should consider this when communicating with the hospital. Moreover, Indian healthcare system is a commercial system, hospitals are free to decide the price and the length of stay of their patent.</p>
Bribery and Corruption	<p>Corruption, bribery, and corporate frauds are now being recognized as the number one risk affecting businesses in India. This is a result of several major frauds and scandals that have been uncovered in the last few years.</p>	Moderate	<p>Bribery and corruption are common in operating business in developing countries like India. This may affect the company business if the company does not familiar with these issues.</p>
Political risk	<p>India is a stable democracy so there is virtually no risk of the country failing. Even if the ruling party or leader changes, most business-related laws and policies generally maintain continuity, especially since liberalization. Nonetheless, currently, India is having a conflict with China and there is the chance that hostilities will escalate the future. Border disputes are not fully resolved between the countries.</p>	Low	<p>Even though the probability of this risk is low, when this occurs, it could have a huge impact on the company's business in India.</p>

5. CONCLUSION AND RECOMMENDATIONS

In this chapter, conclusions which are drawn from the market research will be presented together with recommendations based on the conclusions. In general, Indian is proven to be an attractive market for Bambi to introduce Bambi Belt and the most appreciated methods of entering are using export houses/export management companies and piggyback model.

5.1. Conclusion

Based on the research findings, India appears to be a prosperous destination for Bambi to expand its business. The market size is huge and the market growth rate is high with plentiful opportunities for the company. The positive characteristics of the market include a large number of preterm babies, the increasing number of world-class private hospitals, beneficial policies for foreign manufacturers, low barrier to enter, and no direct competitors in the market. India is an enormous country, the number of NICUs in one major Indian city would be even more than the one in Netherlands. Hence, targeting the whole country would be extremely difficult and risky for the company. In terms of population, economic, financial, quality of living, and healthcare system, Mumbai, Chennai, and Gurugram are selected as Bambi's potential market.

Besides the positive characteristics, there are few threats in the market that the company should consider when deciding the market entry strategy. Firstly, India ranks among the countries with lowest international intellectual property protection index. This would become the problem for the company when it enters this market since this means it is easy for its competitor or neighbor companies to copy its IP. Secondly, even though this is an attractive market, it is still an unfamiliar market for Bambi. Aside from Bambi's CTO, who is originally from India, the rest of the team has very limited experience about the business operation in India. This market research only provides the company the theoretical data about the market based on the desk research, observation, and the questionnaire's responds, the practical data has not yet been obtained. Lastly, though presently, there is no direct competition for Bambi in the market, there is the risk that in the near future, the number of companies who focus on neonatal devices for preterm infants will increase. The increasing number of preterm birth and low-birth-weight leads the UNICEF and the Indian government to shift their attention to this sector. The UNICEF has been running numerous project together with the Indian government to support startup companies in developing innovative products for premature babies.

Further, from the internal analysis, besides the strengths, the company also has several weaknesses. The most crucial weakness is the limitation in the financial and human resource, which will restrain the company to expand its business outside of Europe using hierarchical modes. Hierarchical modes require the company to be a large conglomerate with a strong financial capacity to either set up a sales representative, branches or acquire other local companies in the foreign market. As a young

company, Bambi does not obtain these characteristics, it is not advised for the company to consider hierarchical modes. It is more likely that young company like Bambi should consider using export modes to build its market entry strategy to enter a foreign market. Although using distributors is thought to be the most suitable option for a small and young company like Bambi to enter a foreign market, this is not applicable in this case. The questionnaire's result indicates that most hospitals purchase their equipment by importing them directly from the manufacturers or purchasing through the seller representatives in India. More so, experts in the sector perceive that the distribution channel in India is quite disorganized presently, thus, it is not advised to use distribution channel. Consequently, after carefully investigating and weighing out the factors influencing the choice of market entry strategy, it has been concluded that by using export house/management and piggyback model, Bambi can safely enter the Indian medical device market.

5.2. Recommendations

Per the research findings and the conclusion, there are two recommended entry strategies for Bambi to enter the Indian medical devices market, which are through export management companies and piggyback model. Concerning selecting the export management companies, it is advised that the company should seek contact with export management companies in Netherlands. After the desk research, the researcher discovered two companies, Cardimed B.V. and Imres B.V.. Both companies locate in the Netherlands, have experience in the medical device field, and provide a total solution for the manufacturers such as packing, warehousing, documentations, insurance, worldwide delivery, and after-sales service for the buyers. As regards to piggyback model, it is recommended to cooperate with Phillips. Phillips is a leading supplier of medical equipment, especially in the NICUs equipment, in India. Phillips is currently providing patient monitors for NICUs; hence, Bambi Belt would fit perfectly for their product package.

There are two recommended business strategies that are generated by using the two modes mentioned above: target multiple hospitals and target only one large hospitals chain. Each strategy will be discussed with recommendations as follows:

1. *Target multiple hospitals in one city:* The recommended entry models above are suggested for Bambi to use if the company wants to target multiple different hospitals. It is strongly advised the company to pick one of the cities that are mentioned above as target market. Both export house model and piggybacking model are suitable for this strategy.
2. *Target one large hospital chain:* Instead of targeting multiple different hospitals, it is also recommended to target only one large hospital chain. This is the method that appears to be a good option for Bambi, as it minimizes the required effort and resources in the business process, and enables a higher rate of successful and the independent. Since there is only one target, the company can approach the target by itself, without using an export house or piggyback model. In

case the company needs legalizing advice on the exporting process, Bambi should seek for consultancy companies. Emergo Group or Dutch Business Partner are recommended, as these companies are expert in exporting activities and has a strong relationship with multiple partners in India. Large hospital chains usually have multiple hospitals across the country, thus, if one hospital decides to buy the product, there is a possibility that other hospitals in the chain will follow as well. There are three large hospital chains in the Indian healthcare market, Apollo Hospital, Fortis Hospital, and Cloudnine hospital. Based on the potential customer analysis, Cloudnine appears to be a promising target for Bambi, as this hospital chain focuses more on maternity and neonatologist more than the other two, and the hospital chain aims to improve healthcare service for critical ill babies and extremely premature infants.

5.3. Organizational and financial consequences

5.3.1. *Organizational consequences*

Per recommend strategies, there will be two organizational consequences correspondingly which are:

1. If Bambi decides to target multiple hospitals in one city of India, using either an export management company or piggyback model, the only required organizational change for this strategy is establishing a production chain. Export management companies and the “carriers” in piggyback modes are usually interested in the products that can be sold immediately in the foreign market, rather than the type of products that require customer education or great marketing effort. Therefore, before engaging in an agreement with either an export management companies or the “carriers” in piggyback mode, Bambi need to have its production chain ready and create a marketing plan to introduce Bambi to the potential customers first. Presently, Bambi has not built its production chain yet, however, per the master plan of the company, the company plans to have its first sales in the European market in the first quarter of 2019 meaning by the time, Bambi’s production chain shall be built. Hence, the researcher believes Bambi would be able to implement this business strategy once the company has successfully launched its first sales.
2. The other suggested business strategy is to directly target one large hospital chain without using neither export management companies nor piggyback model. There are several organizational requirements related to this strategy. First, it is also required to have the production chain and a marketing plan to approach the targeted hospital chain. Additionally, there is a need for a sales representative and a customer support center in the foreign market. Based on the company’s internal analysis, Bambi would be able to implement this business strategy within 3 years.

5.3.2. *Financial consequences*

Like the organizational consequences, there are two financial consequences related to the advised business strategies as follows:

1. Using export management companies or piggyback model: for this strategy, there is a required initial investment related to the marketing strategy to introduce Bambi Belt to the potential customer prior making an agreement with the export management companies or the “carriers” in the piggyback mode. Aside from that, it is also required to invest in building the production chain. Nonetheless, the investment related to this business strategy is moderate, and Bambi can implement this once the company succeeds with its first sales. Forecasted revenue of implementing this product strategy is as follows:

Table 15. Forecasted revenue for Bambi (using the recommended business strategy number 1)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
# OF NICUS	16	18	20	22
AVERAGE # OF BEDS	50	50	50	50
AVERAGE LENGTH OF STAY	42	40	38	36
HOSPITAL OCCUPATION RATE	90%	92%	94%	96%
PENETRATION RATE	50%	60%	70%	80%
POTENTIAL # OF BELT	6,813,333	8,569,565	10,328,723	12,045,000
TOTAL SALES MARGIN (€)	272,533,333	342,782,609	413,148,936	481,800,000
COMMISSION RATE	10%	10%	10%	10%
COMMISSION	27,253,333	34,278,261	41,314,894	48,180,000
BAMBI'S REVENUE (€)	245,280,000	308,504,348	371,834,043	433,620,000

Assumptions: The researcher lacks valid financial information about Indian medical devices market, hence, to make the forecasted revenue for the two suggested business strategies, the researcher has made several assumptions and used them to create a forecasted revenue overview of the suggested business strategies.

- Number of NICUs: the researcher selected Pune as Bambi’s first market, and the number of NICUs in this city is 16. Due to the increasing number of premature births, the researcher assumes that the number of NICUs will increase at the rate of 2 NICUs per year.
- Number of beds: The number of beds in the NICUs in Pune is varied per hospitals, so the researcher assumes that the average number of beds is 50.
- Average length of stay: There are no data related to the average length of stay of premature babies in the NICUs and post IC-High care, hence the researcher uses the average length of stay of babies in the European countries that already valid by Bambi, which is 42 days as the starter, and decrease it by 2 days every year. The reason for the decreasing is because one of the benefit of Bambi Belt is ultimate KMC, which might lead to decrease the length of stay in hospital by two days.

- Price per belt: The price used in this forecast is based on the result of the questionnaire. Nearly 62% of the responders agreed that they would buy the product with the price from Rs. 3000 to Rs. 3500 (= €40 to €45), hence, the researcher used the price of €40 here.
 - Hospitals occupation rate: Since the number of premature births is extremely high, the researcher assumes that the occupation rate is starting at 90% and will increase 2% every year.
 - Commission rate: In general, most manufactured products prompt a commission rate of anywhere from 7 to 15 percent (RepHunter, 2017). The researcher used 10% in this forecast.
 - Penetration rate: The researcher expects that the export management company or the “carrier” in piggyback mode can help Bambi enter at least 50% of the NICUs at the first years, and increasing this rate by 10% per year.
2. Directly targeting one large hospital chain without using the export management companies or piggyback model: This strategy requires several investments, both in the home country of the manufacturer and in the foreign market. In the home country, it is needed to have a production chain and the supply chain as well as a marketing campaign for the product. Additionally, in the foreign market, it is recommended to set up a sales representative and the customer support center. Since this business strategy involves several investments, per Bambi’s current situation, the company would be able to conduct this strategy within 3 years after it succeed in launching its first sales.

Following is the forecasted gross sale margin of Bambi using this strategy:

Table 16. Forecasted revenue of Bambi Belt (using the recommended business strategy No.2)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
# OF NICUS	13	15	19	21
AVERAGE # OF BEDS	50	60	70	80
AVERAGE LENGTH OF STAY	42	40	38	36
HOSPITAL OCCUPATION RATE	90%	92%	94%	96%
PENETRATION RATE	20%	40%	60%	80%
POTENTIAL # OF BELT	2,214,333	5,713,043	11,774,745	18,396,000
TOTAL SALES MARGIN (€)	88,573,333	228,521,739	470,989,787	735,840,000

Assumptions: Like the first recommendations, to make the gross sales margin forecast, the researcher has made various assumptions:

- Number of NICUs, beds: The researcher selected Cloudnine Hospital chain as Bambi’s first target, hence the number of NICUs and beds are Cloudnine’s number of NICUs and beds. Presently, Cloudnine has 13 NICUs across the country and the average number of beds for preterm babies is 50 beds per one NICU. The hospital chain will continuously expand its

hospitals, thus, the number of NICUs and beds are increasing accordingly. The researcher assumes that the chain will have 2 more NICUs and 10 more beds per NICU every year.

- Average length of stay, price per belt, and hospital rate are the same as the previous strategy.
- Penetration rate: The researcher assumes the hospital chain would want to test the Bambi Belt first in 20% of its NICUs and increase this rate by 20% per year.

5.4. Final remarks

For the final remarks, this research is conducted in 2017, when the company and the product are in the developing phase. Thus, the data of this research might not be relevant by the time the company enters the Indian medical devices market. It is recommended that Bambi should carefully consider and testify the validity of the data in this research if the company wants to use the data from this research to build its marketing plan in the future.

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CRITICAL REFLECTION

First of all, I am glad that I have the opportunities to conduct this research. During the internship, I have the chance to apply my theoretical knowledge that I have learned during the course of IBMS into the practical situation, and I was able to conduct a market research based on what I have learned. I was also able to build a project plan that was very well accepted by my company mentor and she was pleased with the plan that I have built at the early stage of the internship. Moreover, Ms. Steeghs, my company mentor and other colleagues at Bambi B.V. were very kind and willing to help me solve any problem that I have faced during the internship. Thanks to their advices and feedbacks, my desk research went really well, I was able to gather desired information to support my research.

On the other hand, there are several things that I should have done it better the next time. First, though the project plan was very well, I have failed to take into consideration the risk that doctors in India are extremely busy with their tight schedule, so they do not have time to participate in interviews. As a result, the interviews were too difficult to be conducted and in the end, I have to change the research instrument and method to use the research questionnaire. It was a waste of time and effort. Moreover, it would be better if I be more proactive and communicate more with the team. When problems appeared, I tended to try to solve the problems alone and not raising my questions frequently. I only ask for help from the company's member when the problem is too complicate and I could not solve it. I also regretted that I did not attend the company weakly meeting more often, and missed the chance to discuss all the problems with the whole team. I realized that brainstorming is always welcome within the Bambi team as the most effective method to solve the problem.

During the internship, I have learned many new things. Firstly, I have experience the life of a startup company, and learned about how Bambi have transformed the initial idea into an actual business. Moreover, by participating in the company team building activity, I have learned about how the company ensure that every team member is on the same page, and working towards the same objectives to achieves those goals. Human resource, marketing, and financial are my interested working areas, and during the time while I working for Bambi for my research, I have learned many things about these working areas, such as teambuilding, presentation skills, how to raising awareness about your products in the potential market, and how to get the investors' interesting.

Based on the experience that I have gained during the internship, I have set the next step in my future career as finding for the job as an assistant. I believe that by working closely with an expert as an assistant will help me gain more experience in those working areas that I am interested in, and on the other hand, will help me to improve my communication skills, my biggest weakness.

Following are the final evaluation that I have received from my Fontys supervisor and company mentor.



IBMS SUPERVISOR

FINAL EVALUATION GRADUATION PROJECT	
Student:	Cat Bui
Company:	Bambi Belt
IBMS supervisor:	J de Schouwer
Date:	13-9-2017

	Excellent	Good	Average	Bare Pass	Fail
OVERALL ASSESSMENT OF STUDENT PROJECT MANAGEMENT PERFORMANCE (code: 2263IP8PRO):		7			
FILL IN MARK 1-10 !					
REMARKS/SPECIAL CIRCUMSTANCES					
<p>Cat made a remarkable improvement during her project. She had some serious health issues but showed much enthusiasm and perseverance resulting in a rather good piece of work. It was also very difficult for her (and probably for everyone) to find response for her research.</p>					

(Please turn over for detailed assessment)

Evaluation Professional Behavior:

	Excellent	Good	Average	Poor	Cannot say
Knowledge & Understanding: The student demonstrates a solid theoretical background; is able to choose adequate theoretical models and tools.			X		
Research skills/critical thinking: The student is able to ask the relevant research questions and to design a research.		X	X		
Research skills/critical thinking The student is able to come up with informed judgments; keeps a focus on the core issues, reviews the situation from different angles.		X	X		
Communication: The student can speak and write business English proficiently.			X		
Communication: The student is able to professionally participate in meetings and presents ideas and results in a professional way.			X		
Creativity/problem solving: The student demonstrates originality and inventiveness in his approach and puts forward his own solutions to the problem.			X		
Creativity/problem solving The student identifies creative but plausible solutions and takes financial and organizational consequences into account.		X	X		
Project management/pro-activity: The student is able to organize his work in a planned and well-structured manner and is always well-prepared.		X			
Project management/pro-activity The student takes initiative, is pro-active and works independently, reacts adequately to feedback.		X			
Organizational sensitivity/collaboration: The student has an adequate overview of the problem for the organization, is sufficiently critical towards the organization.			X		
Organizational sensitivity/collaboration: The student understands the formal and informal culture of the company, asks support and input from others.			X		
Learning skills: The student is able to set personal learning objectives and can be self-critical. Asks for feedback and is willing to learn.		X			
Overall score:		X			
REMARKS:					



COMPANY MENTOR

FINAL EVALUATION GRADUATION PROJECT	
Student:	Cat Bui
Company:	Bambi Medical
Company Mentor:	Emmie Steeghs
Date:	September 14

EVALUATION END RESULT	Excellent	Good	Average	Poor	Cannot say
The problem background, the problem definition, objectives and deliverables are clear, realistic and feasible.		X			
Research design is appropriate, the research was properly executed and the conclusions are relevant and in line with the research results		X			
Recommendation and solutions are effective and feasible and in line with the expectations of the company.			X		
Thesis is well written, to the point and concise, lay-out and design are well cared for.		X			
Overall Evaluation End result:		X			

REMARKS:

Overall well pleased with the results of the work though it could have been more thorough with regards to market size assessment. Cat has been a pleasant member of the team though she can work a bit on her presence. She can come across as quite timid at times but I did notice her perseverance in the face of difficulty in answering the research question. I would have liked for her to be a bit more proactive in reaching out when solving problems. Brainstorming is always an option with team members and she could have used this better.

(PTO)

Evaluation Professional Behavior:

	Excellent	Good	Average	Poor	Cannot say
Knowledge & Understanding: The student demonstrates a solid theoretical background; is able to choose adequate theoretical models and tools.			X		
Research skills/critical thinking: The student is able to ask the relevant research questions and to design a research.		X			
The student is able to come up with informed judgments; keeps a focus on the core issues, reviews the situation from different angles.		X			
Communication: The student can speak and write business English proficiently.			X		
The student is able to professionally participate in meetings and presents ideas and results in a professional way.		X			
Creativity/problem solving: The student demonstrates originality and inventiveness in his approach and puts forward his own solutions to the problem.			X		
The student identifies creative but plausible solutions and takes financial and organizational consequences into account.		X	X		
Project management/pro-activity: The student is able to organize his work in a planned and well-structured manner and is always well-prepared.		X	X		
The student takes initiative, is pro-active and works independently, reacts adequately to feedback.			X		
Organizational sensitivity/collaboration: The student has an adequate overview of the problem for the organization, is sufficiently critical towards the organization.		X			
The student understands the formal and informal culture of the company, asks support and input from others.		X			
Learning skills: The student is able to set personal learning objectives and can be self-critical. Asks for feedback and is willing to learn.		X			
Overall score:		X			
REMARKS:					