



Motion Cookies - Preliminary Marketing Plan



ETM 555/655 Technology Marketing
Professor: Dr. Antonie Jetter

Team Members:
Pei Zhang
Swati Kar
Timothy Calderwood
Pratheek Chintala
Sridharkumar Paneerselvam

06/10/2015

Contents

1 Executive Summary	4
2 Introduction	4
3 Mother and Cookies	5
4 Company Analysis	6
4.1 Company Information:	6
4.2 SWOT	6
5 Markets	8
5.1 Functionality Analysis for the potential target markets	8
5.2 Interview results.....	10
5.3 Finalize the target market segment.....	13
6 Technology Adoption Life Cycle	14
7 Competition Analysis.....	15
7.1 Porter's 5 Forces	16
8. Marketing Strategy	17
8.1 Positioning Statement.....	17
8.2 Distribution Strategy	18
8.3 Market Communications Strategy	19
8.4 Pricing Strategy	20
9 Sales Forecast	21
9.1 Market Size	21
9.2 Financial Analysis Form (5 year's projection).....	22
10 Other Marketing Management Plans	23
10.1 Production/Manufacturing Plan.....	23
10.2 Research Plan.....	24
10.3 Customer Service Plan	24
10.4 Other Promotion Plan	24
11 Conclusion	25
References	26
Appendix 1 Survey Questionnaire	27
Appendix 2 Tables	29
Appendix 3 Interview responses	31
Appendix 4 Marketing Research Log	32

1 Executive Summary

Mother and Cookies from Sen.se is one of the newly launched IoT (Internet of Things) products to the family consumers in the market place last year. It provides a motion-sensor-based technological ecosystem which could monitor and manage daily activities of those who most need it easily -- the elder people in Home Care. From a marketing research, the in home elder care is raising as one of the hottest topics of the healthcare field, especially for the people who may not really be able to accompany with their elder parents in the home who may need some slide in home caring. The current solutions by install the regular home security system and using the caring personals would cost around \$3,200 per month which could be a big budget for the housekeeping expends. There would be a need for an easy-setup, cheap, sensitive, reliable, user-friendly, live data, and mobile connected solution for the in home elder caring. As the population data of elder people in U.S. from the last five years, there is an expected growth rate of 3% per year. Even if only 1% of the elder people would need to use our product for the in home caring, the market size will be expected to around 230,000 units around the States at the year of 2020, which would bring an expected profit around \$28.7 million within 5 years until 2020. There would still be a product development period for our in home elder care application packages before launch this whole product into the market place, which would take 6 months. We will work on integrating the hardware and mobile application in the elder care package for our consumers, for both major mobile systems (IOS and Android). There would be two major profit streams of our business plan for the elder care solution: The first profit stream is from the selling profit of the Mother and Cookies product follows their posted prices with our hardware package plans; the second profit stream would from the subscriptions on the mobile applications. From our marketing research, as many as 12 cookies with 1 mother would be fully functional for the in home caring purpose. Since the IoT products is in an extremely growing demand from the technology market places, the in home elder care system that with Mother and Cookies could become really profitable. This technology also be interested to the young people, which could help them to get the live data of their in-home loved ones anytime, to know their status easily than before.

2 Introduction

Mother and her Motion Cookies are a family of smart versatile sensors that take care of your life. Connect your mother to your Internet router using provided Ethernet cable. Download mother for iOS, Android or Windows Phone on Smartphone or Tablet. When it is connected user can receive notifications when something that matters to you happens, information is sent in accordance with the preferences set on Smartphone through SMS, Phone Calls or email. If specified, Mother can play sound notifications with the help of information received from cookies and updating the data to all the devices connected to cloud.

This is an IoT (Internet of Things) based application system.

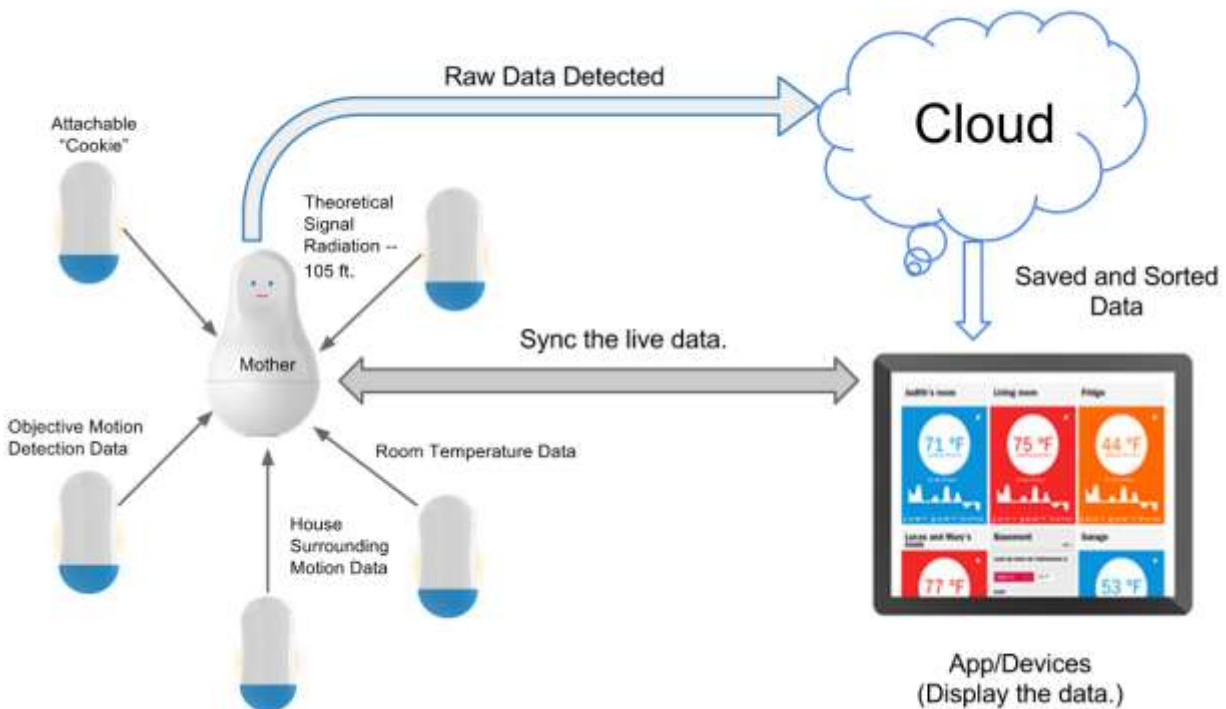


Figure 1: Sen.se Infrastructure

Mother and Motion Cookies, a smart hub paired with multiple sensors brings the Internet of Things (IoT) to everything. Key components are embedded into different cookies which can track various factors such as temperature, motion tracking and frequency. Mother Claims to be the only product in the market that delivers a single sensor with multiple uses, compared to a device that can handle just one designated task. At present there are 15 individual sensor apps that let you track things like distance walked, number of calories burned, and watering plants and so on. Each sensor is assigned a task from the Sen.se web or mobile interface. Sen.se is working on adding apps and also planning on opening up the Application Programming Interface developers so that anyone can add to the app library [1].

3 Mother and Cookies

Mother and motion cookies are smart sensors, which along with apps collects, analyses, and interprets data [1]. Motion cookies can detect any movement of object or people around them. They can also measure the room temperature and continuously detect the presence of object on which they are attached to.

Cookies seamlessly collect information that it is assigned to do. It can be assigned to collect multiple data and reconfigured to collect a different information. Cookies will send the collected to mother. The mother is connected to router to transfer the data to apps[2]. Company has already designed apps such as Sleep, Door, Temperature, and Walk etc. to analyze and interpret data the cookie collects.

The mother and motion cookies setup process is designed to be very easy to do [3]. The mother is connected to a wired network and configured using a browser application. The cookies are initialized by placing them closer to the mother unit and activated by tapping on them. Then the cookies can be used to do its tracking activity.

4 Company Analysis

4.1 Company Information:

Sen.se is a startup company, based out of France. Sen.se is a company that designs devices to collect real-life data, and a cloud-based platform to store data, and multiple apps to make sense of gathered data.

Sen.se was founded by Rafi Haladjian, and Franck Biehler. Sen.se introduced Mother a caring, adaptable and programmable device that turns objects into smart and understanding things, at the 2014 International CES. In addition to marketing Mother & the Motion Cookies to consumers, Sen.se is also working on the development of products for the business-to business market. Today, an increasing number of industries in various sectors are showing an interest in developing smart objects.

Sense Mother and Motion Cookies are a family of smart, versatile sensors, which makes life safer, healthier & more fun. Through the motion cookies, people's lives could be connected through technology.

- Building up your own smart system in the house.
- Understanding your motion and habits.
- Helping you to manage your life easily.
- Gathering the live data of your own life.
- Alerts you if someone breaks into your home.

The team behind Sen.se has a strong background in “internet of things” industry. In 2003, Rafi Haladjian and few members created their first product Wi-Fi rabbit when they are a company called Violet. After 10 years, Rafi Haladjian founded the company Sen.se with the motto of “Meaning of Life”, which is not only to keep things connected but to properly intepret the data to add value to life.

4.2 SWOT

SWOT identifies the strength, weakness, opportunities and threat associated with company. They are discussed below:

Strength:

- The product is in a innovative segment focussing on internet of things concepts. Company has a strong understanding of internet of things concept, also it does stop at just keeping things connected instead focuses more on interpreting data collected by mother and cookies.
- The company of open-source development APIs, where data can be used by other company to develop their own apps. The open-source APIs could help other developers to create apps with different functionality, resulting in increased exposure to different markets.
- The cookie can tracking multiple data at the same time, thus can be used to do multiple applications at the same time. The cookie can track multiple data and also easily assigned a new task when purpose of tracking the previous task ends.
- The product has pricing advantages for a sensor system that has multiple applications over their competitors. The product can used to do different tasks unlike products with sensors for a particular purpose. Thus comparatively the Sen.se product offers more value than its compeitors.
- The Sen.se infrastructure is very easy to setup. Installation of mother and cookies can be done quickly and easily - once the mother is connected to a wired network, it can be configured using a browser. The cookies can initialised and activated by keeping them near the mother and tapping on them.
- The founders and the team has strong technical capabilities on sensor products. They are working together on “internet of things” products for a decade and vastly experienced in designing and producing similar products.

Weakness:

- The product is not very well known or industry itself is at very rudimentary stage - customers need to be educated on these types of products properly. The cookies need to be paired to the mother and it transfers data to cloud, which apps can interpret into meaningful information. Thus it might be difficult for common people to know how these things works, so it might be a barrier for widespread adoption.
- The company has a very low market share with low brand recognition. This would prevent company from expanding rapidly since it has low brand recognition.
- “Mother” looks/sounds weird [2]. The design of mother may be appealing to few, but should be redesigned to have wide acceptance.

Opportunities

- The internet of things concept is increasing in demand and popularity among people which might help the company to grow market share.
- Eldercare market is also growing at a faster rate than ever before. Also homecare market is already 3% of total healthcare spending in the US. Thus, assistive technology products can gain meaningful market size in future.
- There might be new partnerships with other developers to create new apps. The company already has open-source APIs, thus it could create partnership with other company where apps with different functionality could emerge.
- The company could bring changes to business model where customers can be charged based on apps usage and hardware can be sold at very competitive price.
- Partnerships with other industries like healthcare, and industrial security can be formed. For example: 24 cookies can be paired to mother, thus if some healthcare provider wants to track its patients medications they can utilise this functionality

Threats

- There are smart sensor products from big companies such as Apple, and Google. Other big companies also creating sensor products or integrating some functionality to smartphones, which might prevent Sen.se infrastructure to make meaningful value add to customer life.
- Privacy concerns of consumers' personal data security could threaten adoption of these kinds of products. Awareness over privacy of customer's data is increasing. Customer might fear what will happen to their data if mother is hacked by someone with bad intentions.
- People might consider switching costs to stay away from the product.

5 Markets

5.1 Functionality Analysis for the potential target markets

The table show below matches the functionality of the product with the needs of each market. The functionalities highlighted in green are available in the product, whereas those which are in red are not available. The functionalities that are needed in each market are marked as "x". The comparison table identifies the most suited market based on the product functionality.

Functionalities	Home Security	Fitness	Elderly Care	Child Care
Motion Tracking on Position		X	X	X
Temperature Detect			X	X
Sync Range max 65 feet				
Indoor Use	X		X	X
Central System(Mother)			X	X
Battery Backup	X	X	X	X
Easy to setup	X		X	X
Easy to attach to an object		X	X	X
Motion Dector	X			
Sound Dector/Breaking Glass	X			
GPS		X		
Outdoor capability		X		

Figure 2: Functionality Analysis

From the above functionality analysis, the potential target markets of the Mother and Cookies from Sen.se by using its specific functions for the family users could be as the followings:

- Home Security. By attach the motion cookies on doors, windows and the family members' stuffs, the system could provide the functions as the "Door", "Presence" and "Check", to monitor if there is any strange openings of the doors, is there anyone without cookie in the house, and if there is anything be moved unexpectedly. This could become a more accurate system for the home security monitoring than the regular home security systems out in the market with live data and alert messages.
- Fitness. By attach the motion cookie on your sporting clothes, it could provide the "Walk" function which could account your steps, burn calories and other relevant information of For each of the potential target markets, there might be an additional 6-month development period for packaging up the functions, integrate them well, upgrading the existed applications, and develop new relevant applications to serve the demands of each target markets. The customers may not really need to use all of the existed functions from Mother and Cookies; to package the specific functions together would be more relevant for serving the specific application area.
- Product has functionality to target any of the potential markets. However, the Eldercare market needs are most satisfied by the product. Hence, the product can be successfully marketed to capture a significant portion of assistive achieve

your fitness purposes. Together with the “Sleep” monitoring function, you could get your own fitness coach by using the system and getting the live data anytime.

- In Home Elder Care. By attaching the motion cookies on the medicine bottles for the elders in home, it could help you manage the time to take the medicines everyday, or check if you had already taken the pills for today. The functions on “Medication” and “Sleep” functions could meet the need of the 2 major concerns for the in home elder care according to our market researches. The real whole product of the elder care solution would be a package which integrates all the possible applications to this platform to serve the purpose. Other than “Medication” and “Sleep”, “Door”, “Check”, “Temperature”, “Fitness”, etc., could also be integrated into the application packages.
- Child Care. For the child care, “Teeth”, which could attach your motion cookies on the toothbrushes that count how many times you had brushed on your teeth could be really helpful and fun application for children to get a good live habit. Additionally, the “Temperature” function which could help the parents to know the live data of the room temperatures for the children could also be added into this package. Also, the “Sleep”, “Check”, “Attendances” functions could also be considered as part of the child care applications.

5.2 Interview results

We sent out surveys and personally interviewed people one on one. The results of the interviews were identical to that obtained from the survey. The responders showed a positive attitude towards using technology to monitor their loved ones from a remote location via their iPhone or Android phones.

With over twenty respondents to our online questionnaire, we learned people are very open and wanting a technological solution to help monitor those they care about.

For the personal interviews, the subjects’ age ranged from thirty two to seventy, majority of them being females. Except for a few interviewees, all thought Mother was cute and would be very welcoming in their parents home. One interviewee went as far as saying she would make clothing for the mother unit. Most said they would use our cookies for prescription medications either as a way to make sure they are being taken correctly or tampered with. Other uses included refrigerator watching to make sure their loved ones are eating and checking the temperature of the room.

Josh Robb, 35 years old local banker who lives with his 73 years old father, was curious about Mother as he thought it was a good way of making sure that his father took his Diabetes and Pressure medications on time without him having to call in daily from work and check on him. Despite staying with his father, Josh admitted that there have been

days when he got busy at work and his father forgot to take his medications which did not work out well for his father's health.

Lynette Byers, 58 years old retired professional who stays alone, also liked Mother a lot because of its multiple usages. Her most important picks were medication management and locating lost keys. She also suggested other areas of application for the sensors like safeguarding a box of valuables.

The table below is the summary of all the responses we received through interviews and surveys

Subject Name	Age	Gender	Ethnicity	Employment status	Views on Mother	Desire to use Mother
Josh Robb	35	M	American	A local Banker who lives with his father	Thinks Mother will be a good choice to manage his father's medications	Yes
Lynette Byers	58	F	Asian	Retired and stays alone	Is happy to try out Mother and suggests more areas of application.	Yes
Shawn Larson	28	M	American	Single and youngest amongst 4 brothers whose Parents are in a care home	Thinks care home is more preferable as it takes care of social isolation too.	No
Maria Carlos	40	F	Hispanic	Gym instructor	Thinks the market already has smarter products to give real time stats unlike mother.	No
Fatima Mirza	39	F	Asian	Photographer who travels a lot	Says she keeps losing her equipments and mother would be a great way of resolving her problem.	Yes
Rose James	37	F	African American	Lawyer with 2 kids	Wants to use it to track her sleep cycle and improve on it	Yes
Shane Smith	43	M	American	Business Analyst who is vetting options for his parents care.	Wants to give the sensors a shot and see how it blends into his and his parent's lifestyle.	Yes
Sudarat Shirasaki	48	F	Asian	Her parents live by themselves in a different town	Likes the idea but may not use it for her loved ones.	No

Kathy Nalivaiko	71	F	Other	Lives in old age home	Likes the overall product idea	Yes
Cheryl Anderson	61	F	American	Lives in old age home	Thinks it will be useful to have a physical thing reminding her to pay her bills on time	Yes
Asit Mishra	32	M	Asian	Scientist, staying away from home country and parents.	Thinks it is an excellent product to act as a home security system as well as reminder to many other aspects.	Yes
Anna Brophy	29	F	African American	Her parents live by themselves in a different town	Was not very convinced with the product features	No
Pooya Mathew	28	F	African American	Single mother who lives with her 8 year old twins.	Thinks it is a cool product to keep a track of her kids getting home from school on time.	Yes
Janet Swanson	73	F	Hispanic	Lives in old age home	Reminder for appointments was a highlight to her	Yes
Karen Reed	64	F	American	Lives in old age home	Medication management was her preferred choice	Yes
Susan Meyer	47	F	American	Family maker and a mother of 3	Would love to know if her kids are truly brushing their teeth or not and also keep them in the right room temp.	Yes
Sridhar Kumar Panneerselvam	29	M	Asian	PSU student	Thinks it a very cool product and therefore marketing it.	Yes
Swati Kar	30	F	Asian	PSU student	Thinks it a very cool product and therefore marketing it.	Yes
Pei Zhang	33	M	Asian	PSU student	Thinks it a very cool product and therefore marketing it.	Yes
Pratheek Chintala	25	M	Asian	PSU student	Thinks it a very cool product and therefore marketing it.	Yes
Timothy Calderwood	38	M	American	PSU student	Thinks it a very cool product and therefore marketing it.	Yes

Table 1: Questionnaire Response

5.3 Finalize the target market segment.

The current population of persons seventy five and older is current at 20.2m and will continue to grow at nearly three percent to 23.2 million people in 2020 [4]. The potential market size is 74.5 billion dollars a year for just Elderly care [5]. In the United States, home care accounts for about 3% of national health spending, with the market increasing by 9% per year Labor cost accounts for ⅔ of the market [6]. Assistive technology holds small fraction, but 4% market share would translate into \$3bn.

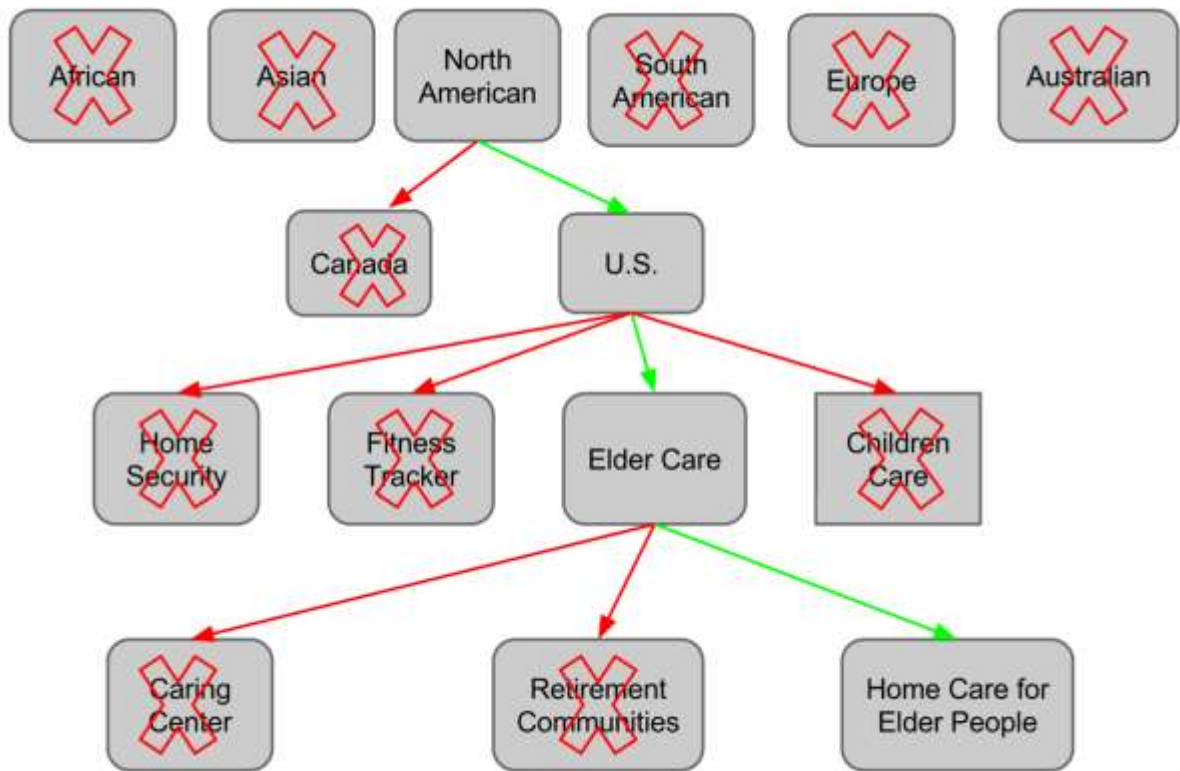


Table 3: Final Target Market

For us, our projection is that is that the initial application for both the iPhone and Android platforms will take 6 months to field with 4 software engineers and two software testers. Each have experience working on our other applications and the ramp up time for this project would be minimal. At fifty dollars an hour per person, we project the cost to be two hundred thousand for both labor and hardware.

In 6 months, we will release two versions of the software. The free version would be limited to the number of cookies it supports and have limited functionality. The subscription version will allow up to twenty four cookies, the hardware limit, and the application will have full functionality. We believe that once a user has experience with

using the limited version they will want to upgrade to the full upgraded subscription version. The functionality between the two options is still being discussed.

6 Technology Adoption Life Cycle

According to the market research and our analysis, the technology adoption life cycle of Mother and Cookies from Sen.se is as the following figure:

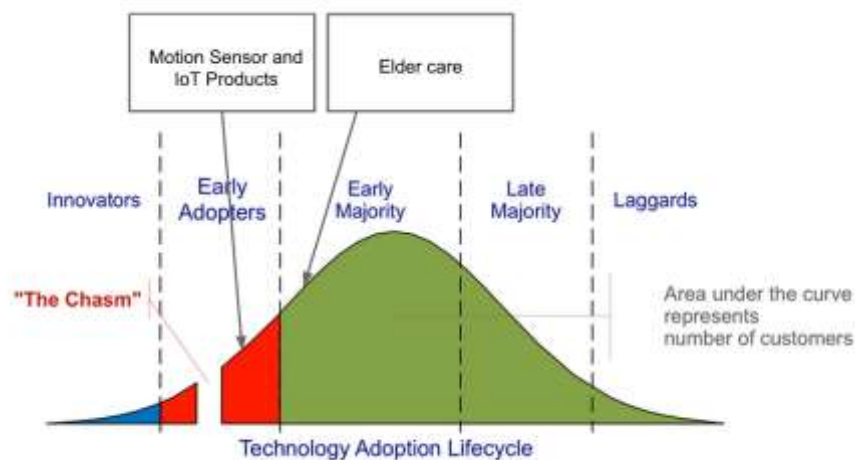


Figure 4: Technology Adoption Life Cycle

Right now, the motion sensors had been used broadly for the consumer electronics products in the market place. Also for the “smart home” products, a lot of sensors and IoT-related technologies had been adopted as parts of the technological ecosystem. The motion sensors and IoT products had definitely crossed the chasm, and in the early adopters stage, since the IoT products are launched into the marketplace not for a long time yet.

As one of the IoT products, Mother and Cookies from Sen.se is also majorly in the early adopter stage, and on the growing trend of the technology adoption lifecycle. It had got some marketing shares already, but not a big marketing share. The brand recognition is still low among the customers. If Mother and Cookies would like to entre the Early Majority stage, they should need to find a clear target market for the next step. According to the market research, as one of the popular topics in the healthcare technology solutions, in home elder care is getting more and more attentions from the customers and the technology development fields. As the increasing population of elderly people, and also the growing demands from the market, the in home elder care could be considered as the target market for the early majority stage for the motion cookies product.

7 Competition Analysis

New developments in technology are likely to make an important contribution to the care of elderly people in institutions and at home. Technology like video-monitoring, remote health monitoring, electronic sensors, door monitors, bed alerts, can improve older people's safety, security and ability to cope at home. The table below shows the companies currently in the market, with products that have elderly care.

Functionalities	Elderly Care			
	BeClose	GrandCare	Wireless Sensor	Motion Cookie
Motion Tracking on Position	✓	✓	✓	✓
Temperature Detect	✗	✗	✓	✓
Indoor Use	✓	✓	✓	✓
Central System	✓	✗	✓	✓
Battery Backup	✓	✓	✓	✓
Easy to setup	✓	✓	✗	✓
Sound Dector	✗	✗	✓	✗
GPS	✗	✗	✗	✗

Figure 5: Competitor Analysis based on Functionality of product

BeClose Tracks an elderly loved one's daily routine, caregivers are able to check on them at anytime using secure web page. If there are any disruptions, remote caregivers will be alerted by phone, email or text message[8].

GrandCare System : Internet connection and communicates with 'wireless' sensors throughout the residence. A caregivers can receive a call, email or text message if specified condition occur (medication noncompliance, unusual activity, door open at unusual time)[9].

Wireless Sensor Tags : Wireless Sensor Tags and Kumo Sensors monitor and record motion events, temperature, humidity, soil moisture and water leaks. They can send you emails, notify you on your phone when temperature or RH is too low or too high, or each tagged item has been moved even only slightly, or when each door has been opened or closed [10].

Other Competitors: Intel Smart Home, Nest.

This kind of information can give a decent understanding of the elderly care market which can let a company implement right strategy. For instance, selecting target market, alliance, field of activity and detecting the threats and take preventive action.

7.1 Porter's 5 Forces

- **Competitive Rivalry**

- Sen.se does not hold any patents on motion sensor products, so it is an add advantage to its competitors. It might be easy for its competitors or anyone to copy the product/idea.
- Sen.se faces intense competition from big competitors on wearable devices as Apple, Samsung, Nike, etc. There are existing products in the market which does the same job for low prices.
- Sen.se also faces other new players for the wearable sensor products as Fitbit, Xiaomi, etc.

- **Bargaining Power of Suppliers**

- The bargaining power of the suppliers is not that strong because of the cheap costs on making the products.

- **Bargaining Power of Customers**

- For now Sen.se only have family consumers. For the family consumers, from the feedback of the current consumers, the brand has a low recognition in the market place. But since there are many other products in the competition, including some big players, the bargaining power of the customers is strong for the product.
- There is not a whole solution yet with this type of product in the market place. The switching cost for changing behaviors may hold back part of the bargaining power of customers.

- **Threat of New Entrants**

- As it is a new to the market large capital costs will be need for promotions, advertising and extending the manufacturings so as to compete with current market leaders . So create new market demands to beat the new players or develop new market segments is also challengeable.
- Need to considering if other competitors on attachable/wearable sensor devices would enter the new market segments as well.

- **Threat of Substitute Products**

- There is a really strong threat from the market because of the increasing trend of the IoT Products.

New thought process with good marketing strategies helps to boost the growth of the organization in near future.

8. Marketing Strategy

8.1 Positioning Statement

From the above analysis, before doing the marketing strategy, a positioning statement should be placed first.

- **Who** - Sen.se Mother and Motion Cookies. Mother is the center spot of the system, which connect all of the Motion Cookies together into the same ecosystem.
- **What** - Attachable Motion Sensor Product that could be connected together through the “Mother”. This is our major product that involved into the marketing plan, which is a motion sensor based platform which could easily build up a Internet of Things technological ecosystem that helps the family users to manage their lifestyles and homes easier and cheaper through this user-friendly and mobile connected application system.
- **For Whom** - The people who would like to use the technology to improve their in home elder care system for their elder parents. The real user of the Mother and Motion Cookies is not really the person or the object that the cookies were attached with, but the person who would like to know about the live data of the movements or surrounding for the person or the objects that they would like to take care of. By knowing the live data, the parents’ status could be easily updated to their sons or daughters all the time. Even if they may not have the time to accompany with their loved ones, the Mother and Cookies would help them with that and connect their lives better through the power of technology.
- **What Need** - Better promotion plan, business alliances, and all the potential family users for the in home elder cares. Since Sen.se now does not really have a big market share and a broad brand reputation among the customers, the brand image needs to be built and promoted better than now, by using online advertising and the customers’ “Words of Mouth” to gain more market recognizes. On the other hand, in order to get more potential market patterns and the selling patterns, making alliances with other industries would also be necessary for Sen.se. The alliances could also become the joint forces on the R&D power for the products, which may also be helpful to improve their in house innovation capabilities. Since we are targeting at the in home elder care, the customers would need to be defined for sure.
- **Competition** - Other attachable or wearable motion sensor products. Mother and Motion Cookies is not the only motion-sensor-based Internet of Things products in the market place. There are also other competitors, such as BeClose, Grandcare system, Wireless Sensor Tags, etc. Also for other “Smart Home”

solution providers as the Nest is also considered as our competitors in the in home care segment. Since the Internet of Things is a really hot concept now in the technology innovation field, the IoT market segment will be more and more competitive in the future.

- **What's Different** - Saving costs, and easy to be used as a whole product. The Mother and Motion Cookies has the price advantage not only comparing with the other motion-sensor-based products, but also with the existing elderly care costs. After integrated the relevant applications and motion sensors in the package, the whole product is also cheaper than existed solutions. There is not a real whole product as this now in the market, which would bring the market advantage to the product.
- **So** - It would make the management of the in home elder care becoming easier and more effective. The technology could help with the elder care in good ways. There would be an expected growth both on the market size and the profit margin in the future.

8.2 Distribution Strategy

Most of the technology products is now using the online purchasing as the major purchasing method. For family consumers, the online purchasing could also be the major distribution way for Mother and Cookies. Through online purchasing, the customers could not only check the technology details and get the technological supporting easily through the website, but also could leave or get the comments on the product and the customer experiences. The comments themselves would become a promotion platform to other customers. The product development team would also get more ideas and get the needs from customers and use them for improving the products.

Basis on the in home elder care application area, the units of sales would be in the form of packages with Mother, Motion Cookies, elder care mobile application package, users' manual, and subscription plans together. In this way, the units customers got from the purchasing would be able to just plugin and use directly, making the application much easier. Additionally, the packages would be easier for the customers to understand the structure of the technological ecosystem through Mother and Cookies, which would also be easier to do the consumer education if the customers don't really have the concept of the IoT products.

Another good way as a distribution channel to the family consumers is providing some live experiences to increase the product cognition before they really making the purchase decision, and the emotional contacts with the customers. From the perspective of customer relationship marketing, to have a physical retailer spot would be really helpful to let more and more people learn about this product and technology. So as an additional distribution channel for the Mother and Cookies, if there could be

some physical selling spots in the consumer electronics retailers, which could be helpful for the commercialization. Through the physical selling spots, the customers could also get some technology advising from the on-site technicians or the salesperson, and provide their attitudes for the products.

In order to explore the marketing opportunities for Mother and Cookies from Sen.se in a long run, some business alliances with the home healthcare providers, elder care solution providers and other industries could be defined. In this way, they could share the marketing information, innovation ideas and improve the brand image better through the strategic planning.

8.3 Market Communications Strategy

There are several major points with consumers that would be focusing on through the communication:

- This is a cost-saving solution for the in home elder care. Through the marketing research, the existing elder care solutions would cost as much as around \$20 per hour in Portland, which would translate into \$3,200 per month, which could be a big budget for the family users. From our pricing plan, the costs will be just around \$299.99 or \$497.99 for the purchasing, and a \$9.99/month for the software subscription. From this comparison, a price advantage is obviously showing. A detailed explanation will be provided in the following section.
- The system could provide a relatively accurate live data for the elderly people who are taken care of. The regular elder care solutions would either not accurate enough, but also not in the real-time updated, which may add the concerns from the users. The real-time live data would help the users to get the status of their loved ones better, make all the needed reactions effectively, and add the confidence when they are using this product for their elder parents.
- Easy to setup and use. The Mother and Cookies from Sen.se is really easy to do the initial setup. With the package of the in home elder care application package, the functions will be integrated better to serve the target market segment. The users would be able to just plug in Mother, get the application package downloaded on their mobile devices, and they will be ready to go. And they will receive the subscription updated on time automatically on the mobile applications as well, which make the whole using experiences becoming more easily.

Another important strategy that contains in the communication strategy is about the commercial channels to promote the business. Through a brief research, the cost for putting advertising on the local radio and TV programmes could be as much as \$30,000 per month depends on the time period. For the national radio or TV programmes, it would be even more. This could be too much for a new brand. On the other hand, given

the major selling method for the in home elder care package is through online purchasing, online ads and mobile ads could be the major commercial channel.

Through the research, YouTube Ads would be a good idea as the online ads and mobile ads since the YouTube ads only as a cost-per-view of \$0.20, and could be targeted to certain kind of potential customer categories such as their regions, ages, genders, etc., which could make our advertisement becoming more effective. The promotion costs would also be included into the maintenance cost of the pricing model. Furthermore, making the use of the customers' "Words of Mouth" would also helpful for develop the customers with providing the user experiences insights to the potential customers in the future.

In a long run, there would be more and more communications not only taking places with the customers, but also with the other industries, business alliances, or the third-party application developers. Even though the objective may different, but our major communication points should be kept all the time. The commercial channel could be changed in the future if we have a more market share, or have the supports from our alliances.

8.4 Pricing Strategy

Basis on the marketing research and the interviews, there are evidence showing that:

- The posted price of the Mother and Cookies from the official site of Sen.se is acceptable for most of the customers. We could not make any changes on the existing prices for the hardware.
- Most of the customers would like to adopt new technology for improving their in home elder care systems.
- Even including a subscription on the applications (the software), the product still have the pricing advantage comparing with the existed products.
- For most of the customers, 4 cookies had already been able to serve their purposes. Even for someone who would like to attach as many cookies as they want with the person or the stuff, up to 12 cookies would totally serve their applications.

From all of the above analysis, there would be 2 major profit streams for our in home elder care product, which are the one-time purchasing profit for Mother and Cookies, and the monthly subscription profit for the software to be fully functioned and kept updated. There will be 2 different package options on the hardware purchasing for the customers to be considered as the following:

- Mother and Cookies: \$299.99 (1 Mother + 4 Motion Cookies)
- Cookie Lovers: \$497.99 (1 Mother + 12 Motion Cookies)

For the software subscriptions, the options are as the followings:

- Basic Mobile Device App Package - free (with the hardware purchasing)
- Advanced Mobile Device App - \$9.99 per month subscription

With a known cost on making the Mother and Cookies, the profit margins for the hardware are:

- Mother and Cookies: \$175 (1 Mother + 4 Motion Cookies)
- Cookie Lovers: \$350 (1 Mother + 12 Cookies)

According with our development costs and maintenance costs, the costs will be as the following, assuming that during the year from 2015 to 2020, we will not have more personals than we have at the year of 2015:

- Initial Costs - \$200,000 (Hardware production, promotion, with 4 software engineers and 2 testers)
- Monthly Maintenance - \$32,000/mon (Promotion, increasing hardware production and technology personals)

If for a more accurate projection, the increasing of the sales team, other increasing personals, and the manufacturing costs should be considered with a growth along the growth of the market size. As that is a five-year sales projection in the following, the above assumption could showcase the projection clear enough.

9 Sales Forecast

9.1 Market Size

With a population that is growing at almost three percent, the following chart shows our market size at different percentages. Even though these percentages are small, only 3156 subscriptions to start with, this will allow us to break even with first developing the software then maintaining it with four software engineers and two software testers.

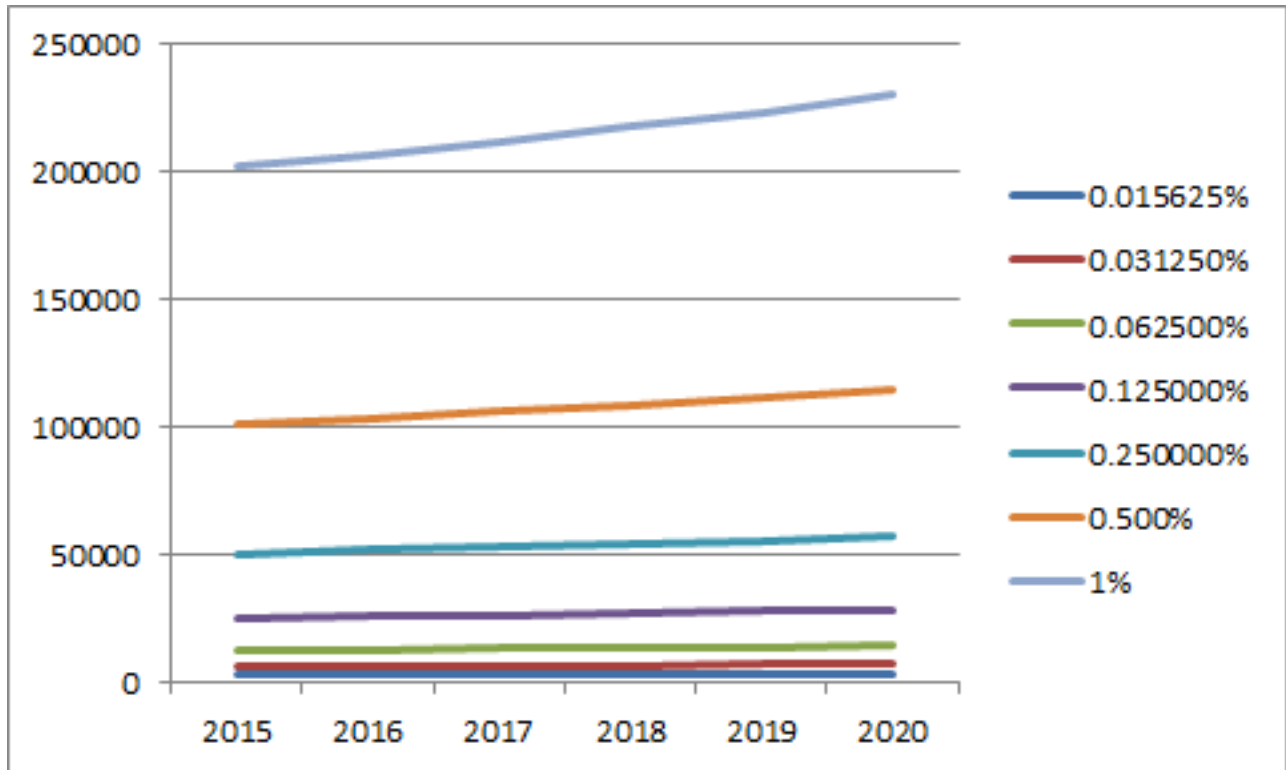


Figure 6: Percentage of Customers

9.2 Financial Analysis Form (5 year's projection)

Our total projected profit displayed in the following chart shows the profit from both the sales of hardware and nine dollar, ninety nine cent subscriptions depending on the percentage of the population that subscribes to our service. This profit does not take in account any profit raised by our hardware and free software option or advanced hardware sales.

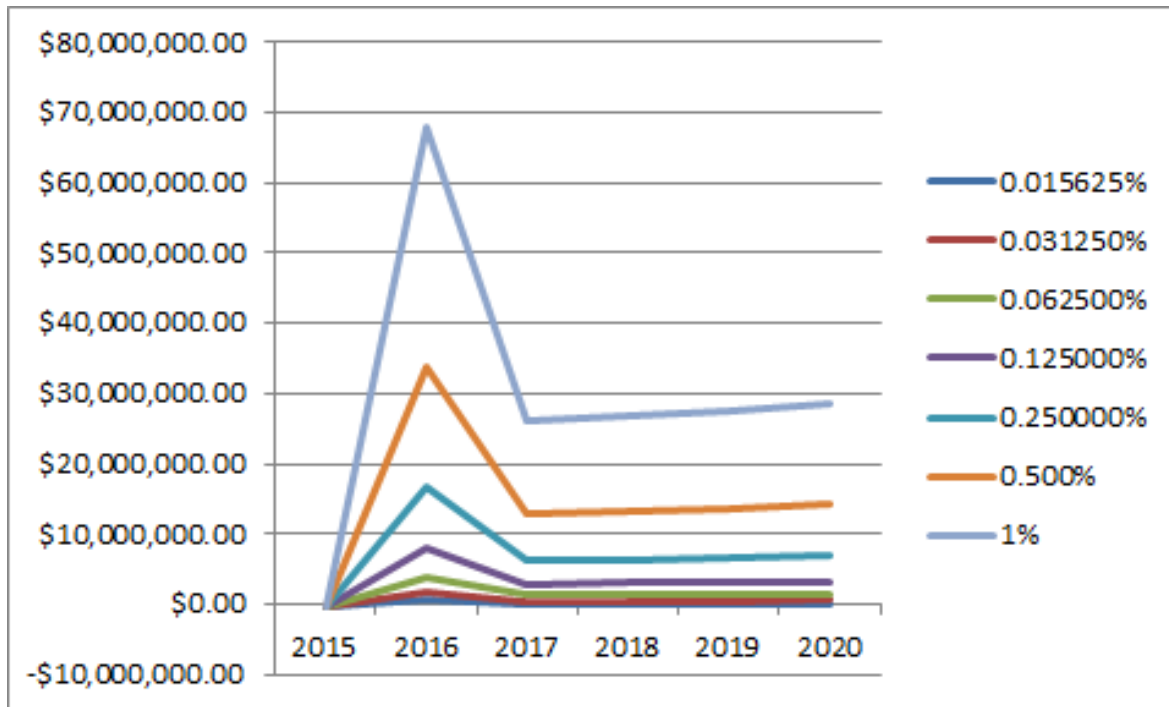


Figure 7: Total Profit over the years

With less than two hundredth of percent of seventy five year olds, will be bringing in a profit of nearly seven hundred thousand in the the first year. After the initial year, our profit is expected to drop because of thee percent growth rate, but still be profitable for the next 5 years.

10 Other Marketing Management Plans

Other than the major marketing strategy plannings, other related marketing management plans should also be made for the marketing activities under the consideration of developing this business in a long run.

10.1 Production/Manufacturing Plan

As the expected growths on the market size and the demands, the manufacturing size should also be increased. For the national production lines, there is a possibility to always finding a cheaper provider for the raw materials and chips which could decrease our manufacturing costs. But we need to keep the quality of the product as well as the first one which had been made. In a long run, if the manufacturing size had been increased to a certain stage, there should be some outsourcing production lines to be defined in the future, in order to decrease the manufacturing costs. China is also focusing on develop IoT products nationally, and could be considered as one of the potential manufacturing alliances.

10.2 Research Plan

Since Sen.se provides open source APIs to the third-party developers, which could be easily encouraged for more relevant features, designs and the apps to service the in home elder care applications. for the product and the system. More outside opinions and researches could be brought in if necessary and possible.

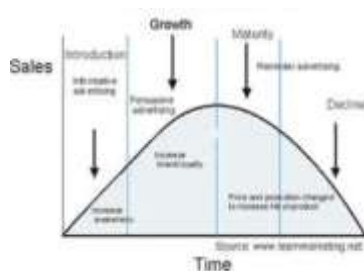
More R&D investment should be put on the in-house innovations for the major development for the applications and the system upgrades. Since Sen.se has not got any patents on the related technology, which is one of the major weakness of the company comparing with other competitors in the field. If Sen.se could pattern these solutions later with a more developed version, that would bring Sen.se some more competitive advantages in the future.

Another possible way to improve the future researches could be taking the customers' considerations and the opinions as the improvement ideas and allow the user innovation along the time. Since this application area is related to the users' needs directly, their experiences and considerations should be taken seriously. The user innovation could also encourage more communications between the company and the customers, which is also good for develop the brand image and the customer relationships.

10.3 Customer Service Plan

The customer services should also be considered carefully to develop and maintain a good customer relationship for the brand building.

Online technicians and phone customer services for the family customers would serve most of the problems that the customers may meet through the usage. The return policy should also be available for the customers. The technicians should have the patients to make conversations with the customers. Some other on-site marketing technicians in the future at the retail spots could also be helpful on helping with the customers' needs.



10.4 Other Promotion Plan

Mother Sen.se plans to communicate with its clients in several ways. Information about the company and the product is available via online now. Considerations to reach out via direct mailings and in person is strongly being considered.

The idea is to personally get in touch with the customers to convey our message, demonstrate the unique qualities of the product and interact with them. Special sales offers and advertising are the current marketing strategy for Sen.se. The more sensors you buy, the cheaper it gets per sensor, thus bringing down the overall cost of the package.

We are also considering Nontraditional promotion techniques which require little money and lot of creativity like organizing demos for the product in places like Costco, that are highly visited by the targeted market.

11 Conclusion

Mother and Motion Cookies from Sen.se is one of the typical IoT products in the form of a small technology ecosystem platform in the market place right now. Even though the IoT concepts now is really hot which having an increasing demand and a bright future, they still need to have a clear target market and a specific marketing plan to serve this target market if they want to develop well. This business plan is trying to help the company to clarify the target market and serve this market segment. In order to make a better technology business plan, learning about the technology, investigating the features and knowing the capabilities of the product is always the first step. All of the marketing researches would need to be built basis on the technology and product themselves, because they are the real object for the marketing plan. The in home elder care could be a good choice for Mother and Motion Cookies to get into their early majority stage. Some of the in house R&D should be done more in the future to increase their technology capabilities. The sales revenue is expected for a constantly increasing trend along the years due to the increasing on the market size and the whole technology adoption stage for the IoT related products in a 5-year projection. The company seems like still open to mergers with other companies as an exit plan in the future.

References

- [1] Sense.me, "Sen.se, The meaning of life", [Online]. Available: <https://sen.se/store/cookie/>. [Last accessed: 8 June 2015].
- [2] techhive, "Sense Mother and the Motion Cookiespecs" [Online]. Available: <http://www.techhive.com/product/1433453/mother-and-the-motion-cookies.html>. [Last accessed: 8 June 2015].
- [3] T. Moynihan, (24 October 2014), "Review: Sen.se Mother", wired [Online], <http://www.wired.com/2014/10/sense-mother/>. [Last accessed: 8 June 2015].
- [4] slideshare, <http://www.slideshare.net/AliHamed3/co-venture-elderlycare> [Last accessed: 6 June 2015].
- [5] B. Kayyali, Z. Kimmel, and S. v. Kuiken, (September 2011), "Spurring the market for high-tech home health care". mckinsey [Online]. http://www.mckinsey.com/insights/health_systems_and_services/spurring_the_market_for_high-tech_home_health_care [Last accessed: 8 June 2015].
- [6] npr, The Cost Of Elder Care, npr.org [Online]. <http://www.npr.org/2012/04/27/151303609/the-cost-of-elder-care> [Last accessed: 8 June 2015].
- [7] John Leyland, (12 February 2015) "Sensors help keep the elderly safe, and at home" [Online]. The New York Times. [Last accessed: 8 June 2015]
- [8] Beclose.com, 'Independent Living Options | Elderly Living Options', 2015. [Online]. Available: <http://beclose.com/Residents.aspx>. [Last Accessed: 08- Jun- 2015].
- [9] Us.grandcare.com, 2015. [Online]. Available: <http://www.us.grandcare.com/>. [Last Accessed: 08- Jun- 2015].
- [10] GrandCare Systems, 'GrandCare Systems', 2015. [Online]. Available: <http://www.us.grandcare.com/>. [Last Accessed: 10- Jun- 2015].

Appendix 1 Survey Questionnaire

1. What is your largest concern you have with the safety of parents?
 - Medication management
 - Home safety hazards
 - Poor nutrition
 - Social isolation
2. What kind of care would be best for your loved ones?
 - Nursing home
 - Personally take care of them
 - Technology driven systems keeping you updated
3. Do your loved ones suffer from medication management issues?
 - Yes
 - No
4. How often do your loved ones forget appointments or paying the bills timely?
 - Yes
 - No
5. Do your loved ones forget paying the bills timely?
 - Yes
 - No
6. Would you consider using technology to address these concerns?
 - Yes
 - No
7. Would you use an app on your phone or computer to help with this?
 - Yes
 - No
8. What events would you want to monitor?
 - On/off status of all appliances
 - Coming in or leaving home
 - Medication management
 - Room temperature
9. Are you concerned about privacy and security breaches with technological products?
 - Yes
 - No
10. What other uses could you see this technology being used for?
11. What is your age
 - 25-40

41-55
56-70
71-85
85-100

12. Ethnicity origin (or Race): Please specify your ethnicity

American
Hispanic or Latino
African american
Native Pacific Islander
Other

13. What is your marital status

Married
Unmarried
Divorced
Separated

14. What is your employment status

Self employed
Out of work
Student
Home maker
Retired

Appendix 2 Tables

Yearly population of persons over age 75

Year	Population
2015	20,200,000
2016	20,705,000
2017	21,222,625
2018	21,753,191
2019	22,297,020
2020	23,000,000

Potential customers at different percentages

	0.0156%	0.0313%	0.0625%	0.1250%	0.2500%	0.5000%	1.0000%
2015	3156	6313	12625	25250	50500	101000	202000
2016	3235	6470	12941	25881	51763	103525	207050
2017	3316	6632	13264	26528	53057	106113	212226
2018	3399	6798	13596	27191	54383	108766	217532
2019	3484	6968	13936	27871	55743	111485	222970
2020	3594	7188	14375	28750	57500	115000	230000

Yearly Net Subscription Income at 9.99 a month per customer

	0.0156%	0.0313%	0.0625%	0.1250%	0.2500 %	0.5000%	1.0000%
2015	-200000	-200000	-200000	-200000	-200000	-200000	-200000
2016	3831	391661	1167322	2718644	5821289	12026577	24437154
2017	13526	411053	1206105	2796210	5976421	12336841	25057683

2018	23464	430929	1245858	2875716	6135431	12654862	25693725
2019	33651	451302	1286604	2957209	6298417	12980834	26345668
2020	46819	477638	1339275	3062550	6509100	13402200	27188400

Hardware Sales per Year for basic unit

	0.0156%	0.0313%	0.0625%	0.1250%	0.2500%	0.5000%	1.0000%
2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	\$679,383	\$1,358,766	\$2,717,531	\$5,435,063	\$10,870,125	\$21,740,250	\$43,480,500
2017	\$16,985	\$33,969	\$67,938	\$135,877	\$271,753	\$543,506	\$1,087,013
2018	\$17,409	\$34,818	\$69,637	\$139,273	\$278,547	\$557,094	\$1,114,188
2019	\$17,844	\$35,689	\$71,378	\$142,755	\$285,511	\$571,021	\$1,142,043
2020	\$23,067	\$46,133	\$92,266	\$184,532	\$369,064	\$738,129	\$1,476,257

Yearly profit when a Percentage of Elderly Population is marketed

	0.0156%	0.0313%	0.0625%	0.1250%	0.2500%	0.5000%	1.0000%
2015	-\$200,000	-\$200,000	-\$200,000	-\$200,000	-\$200,000	-\$200,000	-\$200,000
2016	\$683,213	\$1,750,427	\$3,884,853	\$8,153,707	\$16,691,414	\$33,766,827	\$67,917,654
2017	\$30,511	\$445,022	\$1,274,043	\$2,932,087	\$6,248,174	\$12,880,348	\$26,144,695
2018	\$40,874	\$465,747	\$1,315,495	\$3,014,989	\$6,413,978	\$13,211,956	\$26,807,913
2019	\$51,495	\$486,991	\$1,357,982	\$3,099,964	\$6,583,928	\$13,551,855	\$27,487,711
2020	\$69,885	\$523,771	\$1,431,541	\$3,247,082	\$6,878,164	\$14,140,329	\$28,664,657

Appendix 3 Interview responses

Pat, age 58

I talked to Pat about Mother and the cookies. Being a stroke victim, he thought having a way to remember things would have helped him out. Before his recovery, he had a hard time remembering if he took his pills or if he had gone out. His concern about the cookies were the size, they are a little large to put on a pill bottle, but a pill organizer might work.

Stan, age 68

He sees Mother as a way to monitor his mother in laws valuables while she is at the hospital and during recovery. She has people who take care of the house for her and he is afraid because of her age and lack of memory, people might try taking advantage of her and taking jewelry and medications. He wishes there was a camera option so that mother can see as well. His biggest concern is that the unit would stand out and people might be surprised, unplugging the unit. He does not see his mother law having an issue with it when she is out of the house, but she might have an issue when she is at home as she is a very private person.

Carolyn, age 70

She likes the idea that she can get this and set it up for her family. She thinks it would allow them a sense of well being without her having to give up her freedom. She thinks that mother is cute and she could dress it up to match the seasons. The cookies were a concern because of their size, but figured they would fit on most items she wanted to monitor like her medication cabinet and front door.

Matt, age 36

Was not sure how such a device would be used. Believes that a combination of devices would be better for monitor his folks. He said he would use NEST smoke detector and thermostats for monitor the air of the place. He would get said he would use a modern refrigerator to tell when it was last opened and if the door was left open. He would use a local alarm company for security reasons. He thought the idea was okay, but was more a novelty than a real solution.

Katie, age 46

Thought it would be very helpful to make sure her mom is up and moving during the day. Her mom has had knee surgery and needs to move throughout the day. However, she cannot be there to make sure this is happening, so putting a cookie on her moms cast or walker would be very helpful. She like the friendly look of Mother, but the cookies could be smaller. She was not sure of any other useful uses.

Appendix 4 Marketing Research Log

04/17/2015

After some basic studies from the Technology Marketing class, the team was planning to begin with defining the project first. In order to gathering as much ideas as possible, each team member was going through an online search to the latest technology news, new products, and new technologies, and brainstorming with any possible projects that might be picked up with. Additionally, with the different engineering background from the team, everyone was been able to provide their own assessment on how they were thinking about their recommend technologies or products, so does the recommendations from other team members. By considering about the definition of the high-tech products, the team was been able to narrow down the options of the target products into three final ones.

Problem Encountered:

- It is good to have the team members with different engineering backgrounds which could provide different aspects for different technologies and products; but it could also be a down side with the new team because it may be hard to get a finalized agreement on how the team is reviewing the technology and which one going to be picked up.
- At the very beginning, the team may want to challenge with some unrealistic technologies, such as “the Brain-controlled System”, which was not a really good idea to begin with.

Tools and Methods:

- Online searching for the fundamental research. When begin with the fundamental research and seek for potential projects, online searching is the major method we all using to collect information.
- Brainstorming. At the every fuzzy front end of the project, brainstorming was been used for the team members to nominate their recommend project objectives to the whole team through Email communications. In this way, everyone has an equal opportunity to speak out what they were searching for and how they think about them, which started the communication among the team members.
- Voting for the final options. A simple voting and getting the top 3 choices was been used for the finalized agreement on picking up the project options.

Assessment of the Process, Outcomes and Viability of the Project:

The basic process was smooth enough going around the team members. As the outcome for this stage, the team was be able to finalize the ideas on the 3 possible options of project. Since this is only the beginning point of the project, the team was believing that any one of the 3 options could become the final project topic, which means the viabilities of all the 3 options are high enough to be hold and done.

04/24/2015

After the discussion and verification, the choice of the project objective had been confirmed. As one of the general interests on the Internet of Things, which is also a hot topic in the technology field right now, a motion sensor based product of Mother and Motion Cookies won the election. In order to build up the marketing plan, to learn more about the technology and the product is necessary. The application on motion sensors for the Internet of Things area for the team members now is still on the stage of the concepts, which is not enough for the marketing plan. A

quick learning curve on the Internet of Things and motion sensors is the major task for this week. Some detailed knowledge on how to make the sensors, data hub and the devices connected together as one ecosystem could be helpful for understanding the technology and product. Some readings on technology white papers, a deeply learning through Sen.se website, and other related product information were involved in the reading list. Some discussions with the sense of the technology was also happened.

On the other hand, since the team would need to prepare the marketing plan, another study on how to build up a marketing plan was also becoming a task for the team to learn. The structure of business plan, what content should be included in the marketing plan, and what kind of data would need to be gathered is the major points to be get in a short time of study.

Problem Encountered:

- To detailed learning a new technology and product is a really challenge for the team members.
- Another challenge is how to find relevant materials. A lot of the literatures and technology white papers were showing up when doing the research, but how to pick up the most relevant ones could be important.
- Sen.se is a new brand which had just been launched into the market for 1 and a half years, so not too much information was provided still.

Tools and Methods:

- Online searching for the reading materials. Google Scholars, and relevant databases were involved for searching the support readings and white papers.
- Discussion and the learning progresses checking. Since this is a short learning period for the technology details, product details and also the marketing plan structures, different members may have different progresses and understandings on the stuff. A discussion is needed to share understandings and opinions. A quick explanation on each part of the marketing plan was really helpful to get the sense of how to build up the marketing plan. Also for the technology details, through discussion, more understandings were shared among team members.

Assessment of the Process, Outcomes and Viability of the Project:

- From the discussion and sharing, the short learning curve was moving smoothly among the team members. The different aspects from different engineering fields also provide more delightful points and understandings on the technology and product.
- By using the different engineering aspects to learn the information quickly, a sense of how to engineering the marketing plan and the whole project was been built up better for the whole team.
- As the outcome, the team was better prepared for really start the project later.
- Through the research and learning, the Internet of Things is a hot topic right now; on the other hand, the demand of the motion sensor based products are keeping growing. A general concern of the Internet of Things products now is how to pick up the right target market and the strategic direction. All of these evidences were showing that this could lead to an interesting and valuable marketing plan which could be helpful to improve the marketing strategy of the similar products.

05/01/2015

The first draft of the marketing plan should be provided within the week. A solid consideration of the marketing plan is needed. Basis on the basic knowledge and studies on Mother and Motion Cookies, the competition analysis, functionality analysis and an initial target market defining could be done, which is also providing the foundation of the final report. Multiple research methods were used for analysis. Furthermore, these analysis was also provide the idea to developing the following steps for the project.

Problem Encountered:

- The IoT products now in the technology field is really competitive. There were a lot of competitors in the marketplace if we were not be able to define the target market clearly enough. How to pick up the proper competitor could be really important for the marketing strategies.
- By using the Porter's 5 Forces, the general competitive situation could be analyzed, but still need to be clarified better, according to our special product.
- Since Sen.se only provide the functions and features and only have a general target market for the family users, so some relevant assumptions should be made for identify the target market.

Tools and Methods:

- Porter's 5 Forces. This is a broadly used method for analyzing the competition power of the company and the product, according to the marketing environment. Through the analysis, the core competencies and the bargaining powers of the stakeholders were clarified better than the beginning stage. But there is still some confused points on the bargaining power of the IoT products which would need to provide more evidences on that.
- Functionality Analysis. This is a method that could be helpful to summarize the major functions of the product, and connect the functions to the possible application areas. By the crossing connection with the application areas and the functions, we might be able to define which application area fits most of the existed functions of the product, so that it might be our initial target market.
- Thinking of "the Whole Product". This is one of the most important thinking with the Internet of Things products on how to commercial the product better as a "solution". Using the systematical thinking to provide the "solution" instead of the single product, could provide a better user experiences and better marketing solutions.
- Making assumptions on the initial target market. For this stage, one of the major information was from the social network media and customer comments from Amazon.com. Through the customers' opinion, we would be able to make a very-likely scenario for the possible target market.
- Value Drivers Tree. This is a tool to define the major value drivers to the customers who would like to become the potential users and what kind of the values could be added to the users through the products. Furthermore, the value drivers could also be able to help with defining the core competencies of the product.

Assessment of the Process, Outcomes and Viability of the Project:

- The process was fine with different specialties from different team members. After a discussion, team members were sticky on their own tasks by their own specialties. The individual part was done fine. After some more discussion, the connections was been made from different parts.

- The outcome is the draft midterm marketing plan, which was basically served our purposes and showed our current researches. Basically the current research is on the good track; the initial assumption of the target market was not accurate enough which would need to provide more supporting evidences.
- Evidences were showing that there could be a need for the IoT products. The project has great viability to be carried on.

05/08/2015

The target market could not be stopped at the stage of the assumption. Since all of other parts of the marketing plan should be built on the target market segment, more research on defining the target market should be done. For this stage, designing of the user cases, survey questionnaires and interviews to the people may need to be done to provide a deeper insight of the target market.

Problem Encountered:

- User case designing is relatively important and also a challenge for the team to reach the next stage. How to make the user case being logical enough and be good enough to lead the investigations for the survey and interviews is really challenge.
- How to begin with the interviews and survey and where to find the right person is also a challenge. The design of the questions would affect the quality of the data for the team.

Tools and Methods:

- User case designing. Considering yourself as a user of the product, basis on the known function of the product, what kind of usage you would like to do with? This is a live user care design. Through this process, a deeper understandings on the functions and applications of the technology and products could gain from running through the working process of the case; furthermore, the user case could also be used for a pre-test of the customers' emotional cognitions on the technology or the product. A user case of using the Motion Cookies to help with the in home caring and other kind of health caring was been built. Through the discussion, a better understanding of the function had been provided. It was also helpful on building up the marketing plans.
- Survey questions. The survey questions is a good way to get the general opinions from a broad number of people, which had been widely used in the marketing research area. How to target the right target for the survey and how to design the survey questions are the two major considerations of the survey design. The survey should be designed for getting the correct data for the following steps.
- Interviews. If there would be some special people that might be able to provide some insights on certain kind of questions, from a face-to-face interview is a better idea than survey. By talking with people, the information was transited in the form of the "whole information", which have a better resolution on the information gathering. The attitude from the interviewees could also give the sense of how they were thinking about the technology or the products, and how much they would like to get involved and adopt this technology or products in their lives. But how to design the interview questions and how to do the interview are also important if the team would like to get the information they want.
- Data gathering. As another important part of the business planning, the financial data and other related marketing data should also be found, such as the market size, the changing trend

of the markets, prices of the similar products, etc. Using these data could be helpful with the sales projection plan in the following steps.

Assessment of the Process, Outcomes and Viability of the Project:

- The process is working on well. It was a pretty positive attitude for the team members to begin the designing on the marketing researches. The discussions on the user case development, and the survey questions was also helpful.
- There were not real outcomes yet since the survey and interviews would take time to get the data back.
- From a fun user case, the project of Mother and Motion Cookies is still having a high viability.

05/15/2015

Competition analysis is also important for positioning the product and technology in the market. Another important task is gathering more data on competitors' information. As a basic direction of the target market is the elder care, most of the competitors were chosen from the elder care field, and also other attachable sensor products. Also, an improved functionality analysis should be provided.

Problem Encountered:

- It is a little bit struggle on pick up the correct competitors from the market places. The number of in home elder care product providers is really huge, and most of them were using the regular home security systems or technologies, which made the search becoming even more difficult.

Tools and Methods:

- Advanced functionality analysis. Some more information was been provided for improving the functionality analysis for helping with the detecting of the target market.
- SWOT Analysis. By revisiting the SWOT analysis, the company's competencies were considered better than before. It would also be helpful to position the products into the market field.
- Competitor research. From online researches, and the comparison with the functionality analysis, some initial competitors were located.

Assessment of the Process, Outcomes and Viability of the Project:

- The process was a little bit tough at this stage. The analysis should be more careful. On the other hand, the data from the interviews and the survey has not be back yet, which also made the process becoming not easy.
- Outcomes are an improved functionality analysis, SWOT analysis and some located competitors.
- The project of Mother and Motion Cookies is still having a high viability.

05/22/2015

Assembling the current stuff together, considering the other marketing strategies and an initial sales forecasting should be set and leave some time to be improved.

Problem Encountered:

- The raw data of the interviews and first-round survey had been come back. How to interoperate the data would be a challenge.
- Only defined the elder care as the potential target market at this point, so the other marketing strategies were still not clear yet.
- Since Sen.se had already posted the prices of the hardware online, we may not be able to change any of the purchasing prices of the product.

Tools and Methods:

- Survey data analysis. By analyzing the survey data, the team would be able to find out the opinions from people who responded to the survey questionnaires. Basically just need to get the most elected option would be enough. Furthermore, the geometric of the survey responders would also be helpful.
- 5 year sales projection. This is a general method to be considered for a 5 year sales projection to forecast the potential profits in the following 5 years.
- Cost-profit model. The basic pricing model is still built up on the cost-profit model as the foundation to think about the cumulative profit margin through the purchasing. Following with the growth rate of the market size, a profit changing would also be shown through the projection.
- Strategic planning. The strategic planning should basis on a thinking of the long-time planning for the business development. Even though the specific target market was still not be clarified, the elder care industry could follow some basic rules and be integrated with the business strategic planning.

Assessment of the Process, Outcomes and Viability of the Project:

- The process was also a little bit tough. Since the team could not really change the prices of the product, what we could consider to do would be limited, so does the profit projection. The survey data should be interoperated better than the raw statistics. The idea on the specific target market is still need to be clarified.
- Outcomes were a price projection draft, and some basic ideas on marketing strategies.
- The project of Mother and Motion Cookies is still have a high viability.

05/29/2015

An improved survey may need to be done because the team may need to get more information and opinions from the customers and the market place. On the other hand, other than the hardware purchasing profit only, another profit stream should still be considered for the software side.

Problem Encountered:

- How to package the hardware and software better into a package and sell the units out as a whole product is really challenge.
- How to define the prices of the subscription of the software would need some more insights from team members' specialties.
- Is there any better options for sending out the survey?

Tools and Methods:

- Qualtrics. The team was considering another platform to send out the survey and get the data back. Qualtrics was one of the option that the team was thinking with.

- Cost-profit model. More investigations on the costs of the software developments, maintenances, personals and promotions should be considered to build up a new price model.

Assessment of the Process, Outcomes and Viability of the Project:

- The process was good, which lead to some better solutions for the survey and the pricing model.
- Outcomes were another potential survey designed, and an updated pricing model under designing.
- The project of Mother and Motion Cookies is still having a high viability.

06/03/2015

Meeting up to get the competitor data ready and finishing up the survey.

06/05/2015

Finalize the new pricing model with two profit streams. A deeply discussion on the pricing model was been done for finalize the pricing model. Also the target market had been finally clarified basis on the evidences from the survey results and the interviews, which made the marketing strategies to be associated with the target market.

06/09/2015

Some more explanations of the technology details and interoperating the survey data were provided and structuring into the marketing plan.