

# **Executive Summary**

# **GROCERY BUDDY**

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# **EXECUTIVE SUMMARY – GROCERY BUDDY**

Grocery Buddy is an integrated technology solution that enables refrigerators to intelligently monitor their stored contents and suggest recipes, grocery discounts and shopping lists based on the contents. The technology involves a combination of image and barcode scanning microdevices coupled with software applications to interact with the touch-screen display panel and offer various social services.

Grocery Buddy provides a unique opportunity for refrigerator manufacturers to be involved with the supply chain of groceries.

# 1. THE OPPORTUNITY

Factors creating opportunity for the Grocery Buddy:

#### **Economic**

The demand is for increased productivity and convenience. Consumers are moving towards buying products and services that furthers their mobility and mitigates additional waste of their personal time.

#### **Demographics**

There has been a massive change in technology trends and adoption in the recent 1-3 years. Consumers are becoming smarter every day and moving closer to the innovators. The technology adoption life-cycle (TALC) is vastly changing where early/late majority are becoming the early adopters.

#### **Some Facts**

- 8 million household refrigerators were sold in the US in 2008 and 60 million sold world-wide and the number is increasing (at 3.3% per year). Consumers are moving towards replacing their old refrigerators with smart, energy-saving alternatives.
- As the real-estate market recovers by late 2010 and early 2011, the demand for smart and efficient *refrigerators* will likely increase.
- The percentage of a second refrigerator in households is increasing.
- Household refrigerators are in average 10-15 years old. Most of which are inefficient.

# 2. THE MARKET

#### **Target Market**

There are more than 400 refrigerator models in the US market, mostly by market leaders such as Whirlpool, LG, GE, Samsung, Electorux, Haier and their sub-brands. They control almost 80% of the market-share. Since Samsung and Electorux are already working on RFID-based (while we are working on barcode/image-based) refrigerators, we will, therefore, initially partner with Whirlpool and GE; and other manufacturers (Haier etc.) at later phases.

In 2005, 86 million households owned at least one refrigerator and 25 million households owned a second refrigerator in the US. Our initial focus will be on large (20-21 cubic ft.) size refrigerator market with 15 million owners and very large (22-30 cubic ft.) size refrigerator market with 10

million owners – markets where consumers are willing to invest a few additional dollars to get the most out of their refrigerators.

We did an end-user (refrigerator owner) survey involving 50 participants just to get some idea about the market, and here are the results:

Current refrigerator age (years)	5.6
Large / very-large size (% of participants)	70
Consider changing refrigerator after how many years? (years)	3
Consider buying a refrigerator with Grocery Buddy (% of participants)	95
Average amount willing to pay extra for a refrigerator with Grocery Buddy (in dollars)	200

#### **Distribution**

Grocery Buddy does not require distribution channels since the technology will be directly licensed to the original refrigerator manufacturers.

# **Pricing**

The current refrigerator price ranges varies from \$400 to \$3000. The average price of a refrigerator is \$1200 dollars, based on Refrigerator Market Profile (U.S. Department of Energy, 2009). From that retail price, 60% is the estimated manufacturer price, which is approximately \$720 dollars.

After purchasing a license for the Grocery Buddy technology, we estimate the incremental cost for refrigerator manufacturers to be around \$50/unit. The value of the technology will allow the refrigerator manufacturers to increase their price well beyond this cost.

#### 3. THE COMPETITION

While Samsung and Electorux have announced a similar product technology that can be used for monitoring refrigerator contents, the RFID technology has not yet found its way into their products. Additionally, their proposed version lacks the service aspect of Grocery Buddy's. Based on our research, there are no other companies that have made substantial progress in this field – only speculative press releases.

Since RFID is not yet prevalent, other companies may be waiting to fully develop and launch their products. While now could be a good time to start developing an RFID-based technology to stay ahead of the curve, however, given the uncertainty of widespread RFID-embedded units/devices/grocery items deployment, we will develop our own technology consisting of a combination of image analysis and bar code scanning. We will also be working on the RFID technology for a future version and will launch as soon as the opportunity strikes.

Symbol Technologies announced a service/scanning product that allows consumers to build a shopping list at home. Their concept is similar in that it allows a consumer to manage inventory and build shopping lists using the Internet, but is in no way integrated with the refrigerator. Acquired by Motorola, the product appears not to have been brought to market.

By developing a technology solution that is refrigerator-agnostic and can be deployed in the market before RFID is widespread, we are positioning ourselves to be able to sell it to the top refrigerator manufacturers. We will secure our market share by being early into the market, securing our intellectual property, and forming partnerships with food suppliers – exclusive ones where possible. Below is a SWOT analysis for a clearer perspective:

Strengths	Weaknesses	Opportunities	Threats
- Grocery Buddy is based on existing, already-available proven technology	- Immediate target market is somewhat niche	- Consumers are becoming more mobile; digital home is the future	- Cisco, Google, Panasonic and Microsoft etc. have already unfurled strategies and
- Works with/without barcoded items  - Offers an unique platform for various service capabilities - opportunities for groceries etc. for partnership and refrigerator manufacturers for revenue sharing	- Hard to automatically identify items will have to be manually entered  - Adds to the refrigerator's carbon foot-print  - Wi-fi/Internet connection needed for certain services (deals/discounts at partner groceries)	<ul> <li>2008 statistic: average household refrigerator is 10-15 years old, inefficient and due for replacement</li> <li>Opportunities for refrigerator manufacturers to transform into service companies thereby generating more revenue</li> </ul>	plans to participate on the service-side  - RFID-based technologies and items may become popular

#### 4. BUSINESS MODEL

The intellectual property will cover the fundamentals of how the software applications interact with the hardware devices. Grocery Buddy technology will be licensed to manufacturers who will be responsible for the component sourcing and manufacturing. A yearly, one-time license fee will be collected as we will help the manufacturer with initial integration work.

We will develop and run the software applications that Grocery Buddy-embedded refrigerators use to generate recipes and connect with grocery stores. Use of the applications will be transparent and free for the end-user and the grocery stores themselves will pay for the services that bring them business.

Grocery Buddy will come with a bank of common recipes that will be available for the consumers. Also, consumers will be able to see and share recipes of their own to other Grocery Buddy refrigerator owners through WiFi.

There are also a number of other relationships that are needed to complete the service-offering. A relationship with food suppliers will allow customers to be able to know when items are on sale and provide the ability for food suppliers to push coupons and other advertisements to consumers; however, this will be implemented in a later stage.

# **Value Proposition**

There are three value-ads with Grocery Buddy. Firstly, consumers will be able to track their food inventory and usage through a number of means – display on the refrigerator, SMS, and E-

mail. As an example, through the weighing pads installed on the refrigerator shelves, consumers can be notified when items are becoming low.

Secondly, with the relationship with food suppliers, the Grocery Buddy is able to track the types of food the consumer buys. The Grocery Buddy will be able to see trends and habits in when the consumer goes shopping. With this information, the device will be able to gather information from food suppliers and push coupons and other "specials" to the device.

Lastly, with inventory tracking, Grocery Buddy will be able identify what is in the refrigerator and receive recipes in the system. With this, the consumer will be able to quickly find recipes to make with what's in the refrigerator at any given time.

All in all, the major value ad with Grocery Buddy is the ability to decrease the amount of time required in regards to grocery shopping and cooking.

#### **Market Segment and Profitability**

Grocery Buddy is first directed to manufacturers. The technology itself will provide those who choose to use it as a competitive advantage. Revenue is generated through this connection. One-time licenses sold to the refrigerator manufacturers will be \$200,000 each. This will fuse a relationship with us as a company and the refrigerator manufacturer. This revenue will help fund the company before our technology is widely deployed. Additionally, for each unit sold, we will request 1.5% of the refrigerator selling price to be paid by the manufacturer. This will motivate both the refrigerator making as well as our company to work together to increase sales.

Similarly, relationships with food suppliers will operate in the same manner. There will be a small partnership fee, which will be utilized to establish connection to the food suppliers' data feed as well as be able to push consumer information to them. As advertisements and coupons are generated, as consumers bring in these coupons into grocery stores, they are tracked based on the coupon code. At the end of every month, the total number of sales used by our coupons a percentage will be paid to use for the distribution of the coupons.

#### 5. OPERATING SUMMARY

#### **Product/Service Development**

There are three major goals Grocery Buddy will try to accomplish during the first year. Firstly, we will work on researching and creating a prototype to present to the refrigerator manufacturers. Since Grocery Buddy will be creating, updating and selling the software, the prototype will be a one-time cost to create. Secondly, Grocery Buddy will liaise with most of all major grocery stores to partner with us to advertise their sales and coupons availability. Eventually, within the next few years, we will reach out to the smaller, local and international grocery stores. Lastly, we will advertise to major home appliance companies about Grocery Buddy. We want to have partnerships with the appliance companies to incorporate Grocery Buddy onto their refrigerators.

During the first year, our company will hire necessary engineers and other workers to develop the prototype. The five joint owners of the company will hold the positions of the evangelist, CFO, Marketing manager, Sales/Operations Manager, and Technology Manager. We will hire two senior engineers: one ECE Engineer and one developer. We will also hire up to five

junior engineers. After the initial prototype technology is developed, the engineers will work on maintaining the software and updating them at least every year.

Grocery Buddy will maintain a site in Portland, OR for R&D, sales and service support.

# **Maintenance and Support**

Maintenance and Support will be one of the duties of the Sales/Operation Manager for the first two years. Then, as the company grows and the demand for more maintenance and support is needed, Grocery Buddy will hire more support personnel.

# 6. PRELIMINARY FINANCIAL SUMMARY

The current business plan, prepared by Grocery Buddy (team), shows that the business will generate gross revenues of \$4 million in year two, \$10 million in year four and up to \$14 million in year five. This chart summarizes the preliminary five-year of revenue, expense, and net income for Grocery Buddy.

# **ProForma Income Statement Grocery Buddy**

(In thousand USD)	For the Year ending Dec. 31				
Concept	2010	2011	2012	2013	2014
Income from manufacturers	\$0	\$2,758	\$4,891	\$7,285	\$9,966
Annual License Fee	\$400	\$800	\$1,200	\$1,200	\$1,200
Ad-services	\$0	\$1,289	\$2,220	\$3,210	\$4,263
Total Revenues	\$400	\$4,847	\$8,310	\$11,695	\$15,429
- Direct Labor	\$820	\$773	\$796	\$896	\$1,002
<b>Gross Profit</b>	-\$420	\$4,075	\$7,514	\$10,799	\$14,427
- SG&A	\$132	\$253	\$359	\$462	\$574
- Other Expenses	\$80	\$160	\$362	\$422	\$489
EBIT	-\$632	\$3,661	\$6,794	\$9,914	\$13,364
EBIT Margin		<i>76%</i>	82%	<i>85%</i>	87%
- Total interest and Taxes	\$94	\$1,287	\$2,289	\$3,243	\$4,346
Net Income	-\$726	\$2,375	\$4,505	\$6,672	\$9,017
Profit Margin		49%	54%	<i>57%</i>	<i>58%</i>
Cumulative Income/(loss)	-\$726	\$1,649	\$6,153	\$12,825	\$21,843

# 7. FUNDING REQUIREMENTS

Our start-up requires \$1,500,000 dollars, which are largely associated with startup operations, such as direct labor, prototyping and SG&A expenses for the first two years. These costs are financed by both private angel investors with \$700,000 dollars in year 2010 and \$300,000 dollars in year 2011 and a bank loan for \$500,000 dollars. It should be noted that we expect to be operating at a loss for the first year before advertising and sales begins to take effect and draw in customers.

Bank loan	\$500,000	\$500,000	\$500,000	\$0	\$0
Source	2010	2011	2012	2013	2014

% Int.	9.0%	9.0%	9.0%	9.0%	9.0%
Interest	\$45,000	\$45,000	\$45,000	<b>\$0</b>	<b>\$0</b>
Angels Investment					
Capital	\$700,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
% Int.	7.0%	7.0%	7.0%	7.0%	7.0%
Interest	\$49,000	\$70,000	\$70,000	\$70,000	\$70,000

Grocery Buddy will receive periodic influxes of cash in order to cover operating expenses during the two years as it strives toward sustainable profitability. We anticipate the payback period will be during the next 1.81 years.

Grocery Buddy is flexible and can be structured as a Partnership, C-Corporation, or Limited Liability Corporation (LLC) to accommodate the investors' goals and tax position. In the beginning, a Limited Partnership can be structured in order to avoid double taxation and to allow return capital to investors.

# 8. EXIT STRATEGY

Since, initially, this is a single-technology solution company; it makes sense to position our company to be bought-out by one of the major refrigerator manufacturers who would deem it cheaper to acquire the technology and IP than develop it in-house.

A target buy-out should occur within 4 to 5 years. By that time, we will have developed most of the core technology, secured intellectual property rights, established licensing agreements with some of the manufacturers, and will have set up service agreements with food suppliers.

Because our technology is being initially developed independent of RFID deployment, and is agnostic to the type of refrigerator it can be integrated with, our offering should be attractive to all of the major refrigerator manufacturers.