



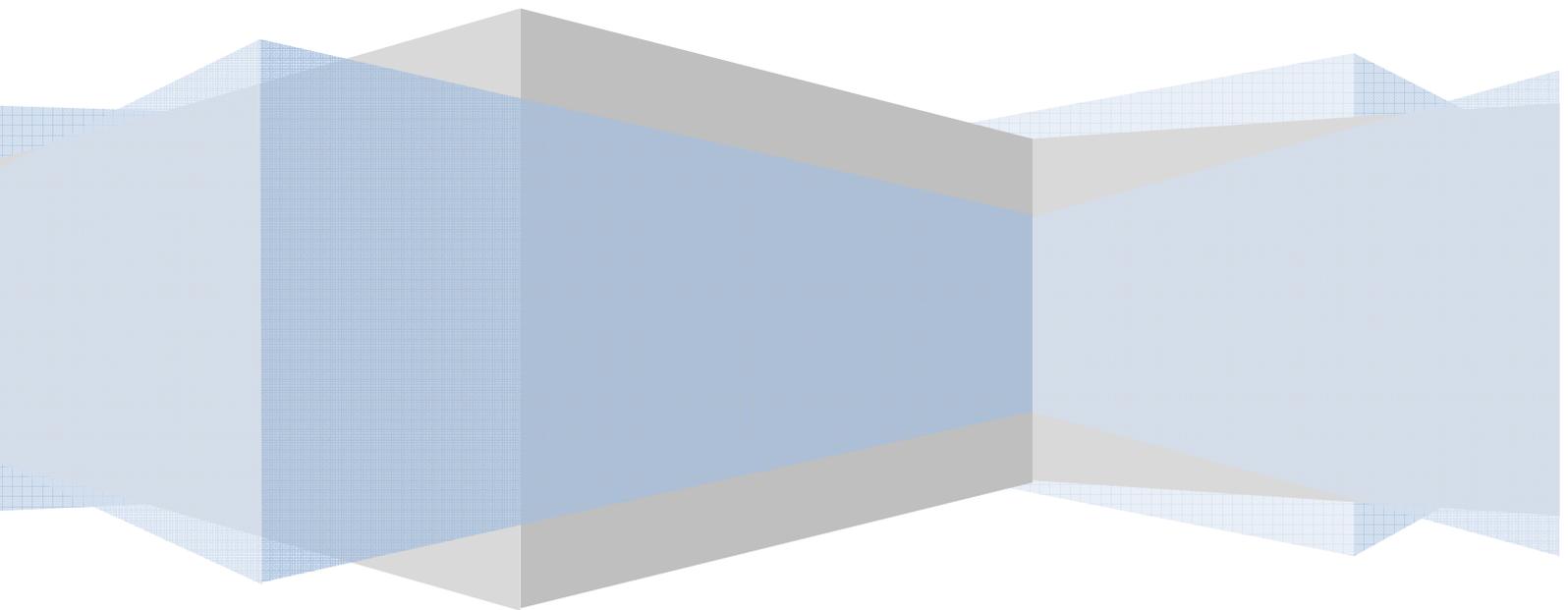
# **RollTop Market Log (Appendix A)**

**ETM555/655**

**Dr Weber Charles**

**Winter 2012**

**Team 6: LiliyaHogaboam, Yonghee Cho, Rupha Natarajan,  
Abraham Sater, Jiali ju, Jeremy Provenzola**



## Table of Contents

Introduction:.....	3
Team formation:.....	3
Used Resources:.....	4
Project Selection Process: .....	4
The Product:.....	5
The Technology: .....	6
The Company of Choice: Samsung .....	6
Methodology: Survey vs. interview .....	7
Market Segmentation .....	8
Competition.....	9
Promotion.....	10
Distribution .....	10
Pricing .....	11
Sales Projections .....	11
Budget Breakdown.....	12
Conclusions.....	12
Appendices.....	<b>Ошибка! Закладка не определена.</b>

## **Introduction:**

The following report is one of the requirements for a Portland State University, engineering and technology management department, technology marketing course 'ETM 555/655' that was instructed by Dr. Charles Weber. As all of the courses in the ETM department, the enrolled students will form various teams to work together on an assigned/chosen project throughout the course duration. The final outcome will be an in class project presentation, a final project report, and for some courses, a project logbook report which is being discussed in this paper.

This logbook is a collective description of the various efforts and activities performed by the team members that led to the final presentation and the final report of the project. It does provide information about the decisions made and the methods followed to reach them. The general flow of this book will match the one of the project final report to a certain extent to explain the mechanism(s) and the reasoning(s) behind each finding or decision taking activity.

## **Team formation:**

During the first session of the course, our team assembled naturally. Various members knew each other from different courses and the past positive experience played its magic in reassembling them back. Those of us who will be working together for the first time were quickly introduced and the team got on the right track right away. Scheduled meeting time and location were set and the needed phone numbers and email addresses were collected. Soon after the first session, assigned members delivered the contact list to the team, Dr. Weber and his graduate assistant Nitin Mayande. Also, a DropBox folder was created to centralize documents storage. From this point on, this project became the puck of our hockey game. Each one of us will have to hold tight to his stick, move the puck toward the goal and pass it on to the right team player at the right time.

Our team included (alphabetically listed by the first names): Abraham Abdulsater, Jeremy Provenzola, Jiali Ju, Liliya Hogaboam, Rupha Natarajan, and Yonghee (Joseph) Cho.

### **Used Resources:**

- The internet available scientific content for project ideas and supportive evidence and data.
- Science and business magazines and journals for project ideas and supportive evidence and data.
- The consumer Electronic Shows (CES) for project ideas.
- The Portland State University & Beaverton city library system.
- The course materials for theoretical guidance:
  - Marketing of High-Technology Products and Innovations, Third Edition (by Jakki Mohr; Sanjit Sengupta; Stanley Slater)
  - The Marketing Plan, Third Edition (by William M. Luther)
  - The course slides presentation (developed by Dr. Jetter & Dr. Weber)
- The PSU ETM archive for previous project samples.
- PSU faculties for advisory purposes.
- Students, coworkers, friends, and the general public for interviewing purposes.

### **Project Selection Process:**

All members searched for project ideas and presented them during our first meeting. Among the attractive ones were:

- The RollTop (a roll-up laptop PC product).
- The holographic TV (a product for home entertainment)
- The Lytro camera (a snap and focus later camera product)
- The YowNow/Vonira.com (a virtual world for social, gaming, and education services)

All that is needed is one project idea, but for back up, three of the four will be detailed into a project proposal plan. By consensus, all team members preferred to choose a product versus a service idea for the project. Therefore, the virtual YowNow/Vonira.com world was

eliminated. All three topics were approved for a project idea by the professor. A quantitative methodology was followed for choosing one. Each member participated in the ranking procedure based on favoritism, with the most favorite idea ranked first. Three weights were defined; Three (3) for first (1<sup>st</sup>) place, two (2) for (2<sup>nd</sup>) place, and one 1 for the third(3<sup>rd</sup>). Each idea scores would be calculated and the one with the highest score would be first, followed by the next highest score as second and the last one would be the third or last option for a project. As a result, the Rolltop came first, followed by the Lytro camera, and the holographic TV ranked third.

## **The Product:**

The project subject sounded very interesting but very little the team knew about it up to this point (the second week of our team formation). In-depth research had to be conducted to learn more about this conceptual idea, the technology driving it, and for us as team to be able to draw a marketing plan for it. For that purpose the team started the search for available literature about the product. Being in its early development stage, detailed specifications were not found; Just generalities. Therefore it was up to the team to either come up with a list for the specifications or just keep the product open for the latest technologies available for the launch time. That was a challenging decision to make since such information will play a role in the customer buying decision making. How crucial?! The final and clear answer came from our interviewees who expressed a simple satisfaction with compatibility to what is out in the market at the time. Understanding the product features made it easy for the team to conduct its interviews (will discuss in a later section). Therefore we built our case and strategy around the impeccable dual usage mode of the RollTop; A laptop at one moment and a multi-touch screen tablet at another. That was the anchor for various part of the project such as the value driver, the solution to the problem, and the main selling point.

Another supportive culture had to be the technology behind the product promised success. Lots of literature was found. The scale for the information reliability was the source and documentation backing up the claimed data. Technology advantages and disadvantages were listed and so the work in progress and final findings and achievements. This information,

among others described in later sections, was used by the team to figure out a fair release date, offered price, market share, segment, value and so on...

Other pieces of information needed for better understanding the market need(s), the consumer desire(s), the product potentials and its offerings, are learnt by communicating with a decent number of the general public (whatever the time allows) and by soliciting subject experts advise. By moving away from our comfort zone, and looking outside the window, as a team, we will have a better insight about the subject/issue at hand. This will serve as the guide to customer identification, possible competitors, and the consumer perception and acceptance of the suggested product.

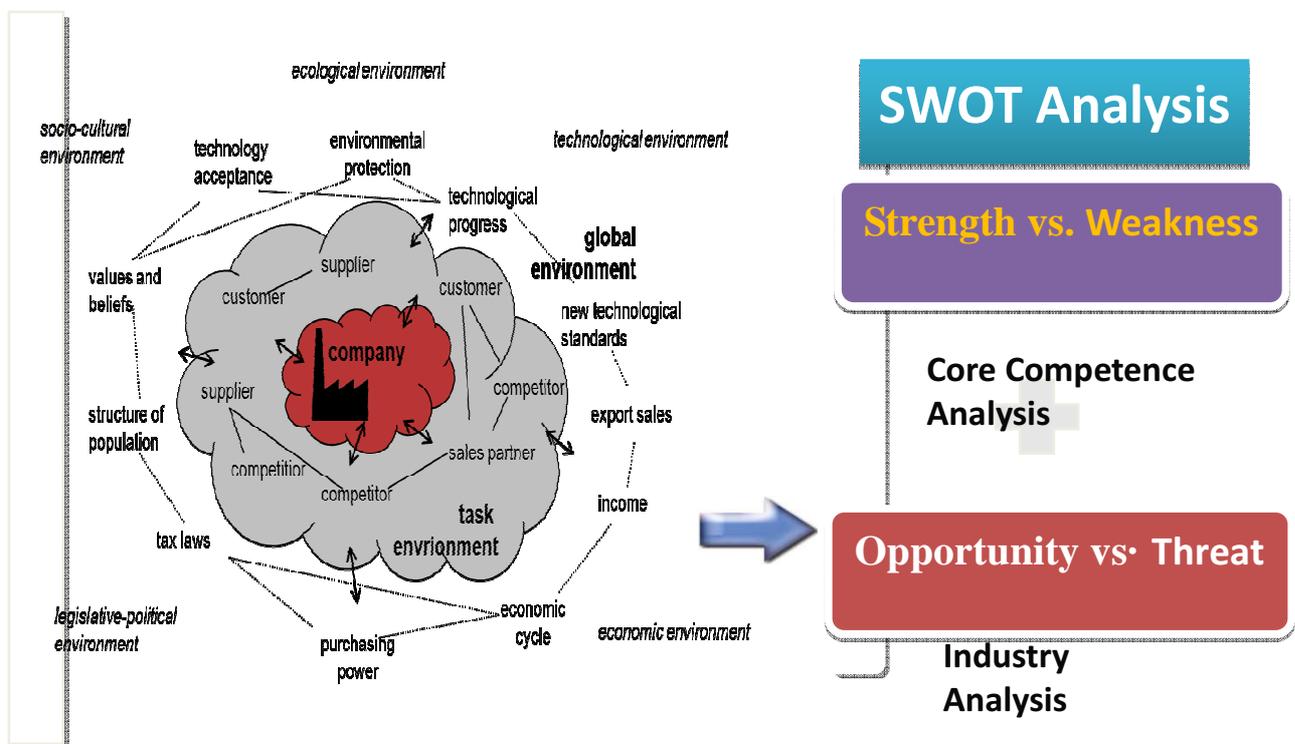
### **The Technology:**

Literature about the technology was not an issue as long as we were seeking historical and technical data. The challenge was in the scarcity of financial information which limited our ability to have a clear understanding and calculation of the total manufacturing cost. To benefit from the available percentage figures such as promising reductions/drop in price of OLED (organic light emitting diode) manufacturing due to innovations or major breakthrough, we used the information as a product release date pull factor and an encouraging factor for a very near future profit since Samsung (the company to whom we are developing the marketing plan) is by far the largest OLED manufacturer (more will be said in the pricing section and the company section). The key learning point in this scenario was to not overlook, or treat any data as useless if it does not serve the immediate purpose you looked it up for.

### **The Company of Choice: Samsung**

The high tech electronics industry is a very rich one in terms of available competitive companies, and all have their own strengths and weaknesses. Among the names the team proposed for the RollTop production were Sony, Hewlett Packard, Samsung and others just to name a few. The team was a bit indecisive and had a split vote for Sony and Samsung. The final vote favored Samsung. Samsung has been recently ranked and classified as one of the most and fast growing global consumer electronics companies. Also, Samsung has a rich and diverse

current portfolio and lines of products such as the notebook, the tablet, the smartphone, and the OLED display which plays a big role in our product, the RollTop. Those were among the initial driving forces that lead the team to choose Samsung as the company to whom the RollTop technology marketing plan should be prepared. Definitely more investigation is needed; the company's detailed capabilities along with its inner and outer environments challenges were outlined employing the SWOT analysis. Published literature related to Samsung in the United States, the company's website, as well as the South Korean publications about Samsung were relied on to build up the case.



Source: Adapted from Dr. Jetter  
NPD PT

Fig. 1 Overview of SWOT analysis

### Methodology: Survey vs. interview

To build up our case, we needed to get some sort of credible information from the public to be able to identify the product potential customers, their needs, perception and financial ability

in term of willingness to pay for the product. Also the information would be used to match the consumer needs to the values our team can deliver via the product (or in other words Samsung, the company making the product).

Two venues were at our disposal; surveys and interviews. We started by designing our survey but realized that the time was not in our favor. An initial survey would be needed, followed by a second and may be a third ones until we get all the answers needed. For that reason, the whole team agreed that interviews are better since information will be gathered in one session by asking for more clarification or further details when needed. The same survey questioner was used and the data was tabulated in a couple of different ways to extract the information out. Both sets of tabulation will be added as appendices and referred to as needed throughout the report.

The interview has different parts, one for creating perceptual map, one for laptop expectation analysis; and one for RollTop related like price range, preferences, comments, buying intention. Samples of interview summaries and questionnaire are shown in Appendix A and B.

## **Market Segmentation**

We first divided the market into laptop market segment and tablet market segment because the basic idea of RollTop is the hybrid of laptop and tablet. So we think our customers are those who use both and those who want to use both but currently only have laptops. But after the midterm presentation, we realized that although we know who may buy the product, we still did not decide which specific group of people to target. Then we put lots of effort to do online marketing research. At the meantime we gathered and analyzed the interview responses. All these gave us a good idea how to dig into segmentation. So we revised our customer analysis decision: On the top level, US market. Then two big market groups: laptops, tablets. Under laptop market, we have business professionals, gamers. Under tablet market, we have media lovers and presenters. But when we combined with interview responses, we found our real potential customer segments are business professionals, students and gamers. Because laptop users and tablet users are good for our market needs analysis to know what people expect and what is the problem in the current market. But the customers, we want to sell to, are those who

are interested in this product, which are really two types of people, for business usage, and for entertainment purpose. Each segment has its own unique characteristic that differs from each other. In order to make sure we are on the right track, we also met with Dr Weber and asked his suggestions and comments.

For our primary market we decided to focus on the Travel Business Professionals as this segment of people will be the highest beneficiaries of RollTop's performance and cross-compatibility. Based on extensive research we identified through Gartner publications that, there are about 458M business trips made each year and an average American makes close to 9 trips a year. So we divided 458M by 9 to arrive at  $\approx 51M$  business professionals as our primary target market. This would approximate to 16.7% of the 300M US population in the year 2011. More research on market segmentation and penetration market segment, the market niche, presented literature suggesting a one to five percent of the primary target for the initial customer selection (a 1% - 5% of the 51M). Our team decided to start with the one (1%) percent and progressively increase our market target by half a point (0.5%) a year for the following four (4) to five (5) years when the product goes global and when the new generation of the product goes out to the market.

At one point of our market segmentation process we considered marketing to the military, but decided that our product may not be well suited for that segment. While the product is light and portable, OLED screens are not waterproof and may not be that comfortable in direct sun environment. We decided that flexible OLEDs are not ready for the military environment. It would be interesting to follow up and interview that market segment on their needs and whether the touchscreen interface as well as the whole Rolltop ecosystem would be attractive to that segment. In the future, with the development of OLEDs, improvements in display, the potential of this market segment should be revisited.

## **Competition**

In order to determine the direct competitors to Rolltop, the team first considered what problem is being solved by the Rolltop and then sought to identify particular products appear poised to solve the same or a similar problem. In the case of Rolltop, the direct competitors would be those appear to bridge the gap to some degree between convenience and performance

in mobile electronic devices. Competitive products were found by searching current offerings from retailers such as Best Buy and NewEgg.com. Additionally, products were identified by searching videos and other releases from international conferences and tradeshows such as the Consumer Electronics Show (CES). These sources are particularly useful because they offer a glimpse into the near future of innovative offerings of some of the world's largest electronics companies. Ultimately, the competition was sorted into three distinct categories: PC laptop hybrids, Apple notebooks, and Intel's new Ultrabook campaign.

## **Promotion**

In order to determine promotional strategies for our product we read the textbook, did market research and learned what promotional strategies are used in the marketplace, whether they are effective or not as well as what promotional strategies are currently employed by Samsung. We decided on some traditional promotion channels (like ads in magazines, in the news etc.) as well as novel strategies like getting involved in social networking sites, blogs, ads on mobile phones and tablets.

When decided on our strategy we looked at it from the point of capturing the voice of the customer. Our persona analysis and interviews helped us shape our target market of business professionals and in our promotion strategy we target business professionals through Sky magazine, WSJ and other media.

## **Distribution**

While working on our distribution strategy we did literature research, various market reports (Gartner, Euromonitor, etc.) as well as looked at the distribution channels currently employed by Samsung and its competitors. Since our target market of professionals on the move can acquire our product from their employer (for example: all Intel employees have work computer provided by Intel) as well as purchase it from the brick and mortar or online store, we decided that our distribution strategy should have business to business sales through partnerships and sales directly to consumer through indirect and direct channels. The case in our textbook about Dell gave us extra information on the benefits of such distribution strategy.

## Pricing

The team chose to determine a price for the Rolltop using the three C's: Cost, Customer, and Competitors. Of the three C's, the most difficult to ascertain was the cost of the Rolltop since it is very early in the products development and there are not any comparable architectures to compare to at this time. With this in mind, the team identified the cost of the flexible OLED screen as the greatest differentiator from the cost of producing a conventional laptop, and assumed other costs would more or less be comparable. Incorporating customer expectations for price was relatively easy in that this was a component of the interviews. The data was collected and normalized into a bell curve. From this data, the average customer "willing-to-pay" price was \$1,055 (Appendix C). A factor of 15% was added to account for the perceived value added due to brand familiarity under the assumption that Samsung eventually brings the Rolltop to market. As a final check, the team identified that the new price of \$1,215 was very competitive with regards to the prices of the direct competitors and would still capture of 40% of interested interview respondents.

## Sales Projections

The deciding factor for any business to manufacture and sell a product like RollTop would greatly depend on the ability of the product to be able to generate sales revenue. These revenue generated not only has to be able to cover the related costs while at the same time should also be able to generate expected margins. Our first attempt in projecting the sales numbers was during our meeting in week 8 when we received our feedback on our midterm presentation. This was a turning point for the team as this helped us rethink outside-the-box for the first time. Based on the feedback and guidance given by the TA (NitinMayande), we decided to establish our sales projections on the population of business travelers for the year 2011 in United States as our primary market as described under the market segmentation portion above. Considering the fact that the primary factor that makes RollTop a revolutionary product is its flexible OLED screen, still under development phase, we projected to release our product to its final customers in the year 2013. We then had to establish the growth pattern for RollTop sales based on the growth rate of OLED screens for mobile PC derived from Gartner research established between 1 to 5%. With this and the resultant market of  $\approx 51\text{M}$  business professionals in the US, we set out to capture a conservative market for Year 1 of  $\approx 1\%$  of 51M; which is 550,000 units. The growth is

assumed to increase in a linear pattern of 0.5% each year until we go global in the year 2016. The price reduction strategy adapted in 2014 also helped towards boosting our sales numbers though increased volumes and perceived customer affordability. Based on the assumption that Samsung will be the first one to introduce RollTop to the market, we decided to adapt Samsung's track record of margins in 2011 at the rate of 30% of sales revenue as described in our report.

## **Budget Breakdown**

Budget is generically defined as; an estimate of income and expenditure for a set period of time. In order to budget our costs for each of the 3 broad categories; Marketing, R&D and Manufacturing, the team decided to adapt Samsung's financial results for 2011 Q2 as the basis for establishing budget percentages for the RollTop segment of the business. Thus we allotted approximately 20% of cost to towards marketing, approximately 10.5% of cost towards R&D expenses and the remaining 69.5% to manufacturing. These budget contributions were later apportioned as percentage of sales projections in our marketing plan. We established that the budgeted percentages will be adjusted year over year based on the actual costs incurred.

## **Conclusions**

Our team worked very hard and learned that first we need to understand who our customers are and what their needs are and how we can capture the voice of the customer. We worked on defining the problem statement and learned that it is one of the most important parts the we needed to address. Product's features may not translate into the benefits and values for the customer. We worked hard on outlining what the value drivers are and what our value proposition should be. Our value proposition captures the essence of our product's value to the customer: "Cross-compatible, energy efficient, environmentally friendly product with flexible screen that combines the performance of a Laptop & convenience of a Tablet and chic to handle for travelling professionals!"

We applied all the knowledge and experience we had, equipped with interviews from our customers, the textbook, research articles and reports as well as advice from Dr. Weber and Nitin in our quest to present the best marketing plan that we could in such short term. This marketing plan could benefit the designers of Rolltop as well as Samsung and should provide an

educational value for students, educators, startup companies and anybody who needs to write a marketing plan.

## **Appendix B:**

Comments about RollTop attractiveness; the genuine words of interviewees:

### **‘Will buy one’ group.**

\*It’s very attractive because you’ve made it even more portable and turned it into more than just a laptop. It seems that the RollTop is a hybrid of a laptop and an iPad. So you’re getting the best of both worlds in one. Oh and the customization of the cover is a plus.

\*It looks cool.

\*Greater portability.

\*Cool design, ultra-portable, screen size.

\*Portability, functionality of touch-screen or standard.

\*I like how you can roll it up, very small & compact.

\*Portable, different form factor.

\*More flexible, appearance.

\*Would need a protective case and it’s perfect. Much smaller than normal laptop and OLED = great battery.

\*Smart, cool.

\*Looks light, easy to carry with no back strain.

\*Great concept, I like the versatility and portability.

**‘Not sure about buying one’ group.**

\*I like it because it is portable with its carrying case.

\*I like it because it is portable. I use my laptop/tablet for travel.

Marketing site is clean, product is appealing. Needs to have rugged connections/parts for travel in luggage /saddlebags.

\*I need to see the real prototype. It is a clever idea, but all I’m thinking is that screen is going to get scratched every time you roll it and looks like it will take a long time to open it compared to opening a MAC. If it is nothing close to a MAC then I won’t buy the Rolltop.

\*Nice display, portable, built in case, flexible for when you don’t need keyboard.

\*Need to try first.

\*Portable/multi-functionable. It looks cool.

\*Should have a hard case available. Sling design seems prone to accidents.

\*Small/touch screen/portable.

\*Versatility, large screen and availability of keyboard.

\*It is pretty Big.

**Appendix B:**

Excel Sheet Summary

**Won’t Buy**



Why?	
Prefer something simple	
Seems Fragile. Looks like a hassle to roll and take apart. Would be expensive to repair	
Looks versatile and capable. Like the low weight and small package size	Won't buy because no need for now. Reliability not sure. Can't easy to replace parts.
Very cool. Some features are not the favorite. Keyborad, not comfortable. Screen when it's rolled. They're other laptop carrying design.	
Flexible screen	
Flexible to convert to tablet mode with large screen size	
Screen flexibility	

## Appendix C

### Interview Questionnaire

#### a. For Perceptual Map

#### Convenience (portability, ease of use, startup speed, size, weight)

Based on your perception, please rate the following devices on a scale of 1-10 for convenience, 10 being the most convenient:

Laptop Computer \_\_\_\_\_

Desktop Computer \_\_\_\_\_

Tablet Computer \_\_\_\_\_

Smart Phone \_\_\_\_\_

#### Performance (speed, memory, computing capabilities, throughput)

Based on your perception, please rate the following devices on a scale of 1-10 for performance, 10 being the highest performance:

Laptop Computer \_\_\_\_\_

Desktop Computer \_\_\_\_\_

Tablet Computer \_\_\_\_\_

Smart Phone \_\_\_\_\_

*b. General Questions*

**Section I – General Information**

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Job: Student / Others(Title) \_\_\_\_\_

**Section II – Laptop Experiences**

1. How long have you started to use Laptop?

Less than a year     One year     Two years     Three years     Four years     More than Four years

2. How often do you use Laptop?

Rarely     Once a day     Often     Very Often

3. When you use your laptop, what do you mainly do? (Multiple Choices)

Document work/Project work     Entertainment

Others \_\_\_\_\_

4. Do you think it's very necessary to use a laptop, compared to desktop computers?

Explain why?

\_\_\_\_\_

5. What does Laptop mean to you?

\_\_\_\_\_

6. What functions or applications do you expect Laptops have and how can these functions help you?

1. What age group do you fall into? a.0-17 b.18-34 c.35-50 d.Over 50	
--	--

---

7. How much are you willing to pay for Laptops?

<\$500    \$500 ~\$800    \$800 ~\$1100    \$1100~\$1400    \$1400~\$1700    >~\$1700

8. Rank the priority concerns when you select a laptop. (1 is the Top concern)

Price    Performance    Size    Color    Reliability    Latest Technology

### Section III -RollTop Preferences

1. How much does RollTop laptop attract you?

Not at all    Very Little    Neutral    Like it    Absolutely Attractive

Why? \_\_\_\_\_

2. Will you buy RollTop laptop?

Won't Buy    Not sure    Will Buy

3. How much you will to pay for RollTop laptop?

---

4. Additional Comments?

\_\_\_\_\_

2. What is the one aspect that really impressed you in the product?	
3. What would you use the product mostly for?	
4. Would you replace your current laptop or tablet with this product? How probably is your replacement on a scale of 1 to 5 where 1 being least probable?	
5. How much would you pay for this product as a first time buyer? a.\$700-1000 b.\$1000-1500 c.\$1500-2000 d. Greater than \$2000	

## Appendix D:

How much are the interviewees willing to pay for a laptop and the RollTop.

