

Course Outline: ET5212 Entrepreneurial Ecosystem

Academic Year	2022-2023	Semester	1
Course Coordinator	Professor Foo Maw Der Professor Nanyang Business School Director, Nanyang Technopreneurship Center (https://www.ntu.edu.sg/ntc)		
Teaching Assistant	Ms Jessie Cheung		
Course Code	ET5212		
Course Title	Entrepreneurial Ecosystem		
Pre-requisites	NIL		
No of AUs	3		
Contact Hours	3 x 13 weeks		

A) Course Aims/Description

Upon completion of this course, you will know how to recognize and evaluate new venture opportunities; will understand the issues faced by entrepreneurs when starting a venture; and will have the fundamental skills and tools required for starting and growing a new business. In addition, you will know and understand the difference between an opportunity and an idea; the value proposition and how it applies to a new venture; the need for sustainable competitive advantage; and the methods to estimate profitability of a new venture. Finally, you will be able to better assess your potential and interest in becoming an entrepreneur.

B) Intended Learning Outcomes (ILO)/Objectives

By the end of this course, you should be able to:

1. Explain where and how you can be engaged in the entrepreneurial eco-system
2. Recognize and evaluate new business opportunities;
3. Describe issues faced by entrepreneurs when starting a business;
4. Map a venture's value using a business model;
5. Develop a plan for the new venture.

C) Course Contents

Designing a business model;
Estimating market size for a new product or service;
Life cycles and product specifications;
Customer acquisition;
Building the entrepreneurial team;
Cost of customer acquisition and life-time customer value;

D) Assessment (includes both continuous and summative assessment)

Component	ILO Tested	NBS Learning Goal (Refer to Appendix 1 for list)	Weightage	# Team/Individual	Assessment Rubrics (attach rubrics in appendix)
1. Entrepreneur spotlight video * in-class presentation; any member can present)	ILO3	Acquisition of knowledge; Oral communication; Creative thinking	10%	Individual	Entrepreneur spotlight rubric
2. 7 memos + presentations * in-class presentation; any member can present)	ILO 2, ILO 4, ILO 5	Problem solving and decision making, Oral communication and written communication;	35%	Team	Memo rubrics
3. Lessons learned presentation (* in-class presentation; any member can present)	ILO 2, ILO4, ILO5	Motivation development of self and others	5%	Team	Lessons learnt presentation rubric
4. Feasibility report	ILO2, ILO4, ILO5	Critical thinking, problem solving and decision making, planning and execution, written communication, teamwork and interpersonal skills	10%	Team	Feasibility report rubric
5. Participation	ILO 1, ILO2, ILO3, ILO4, ILO5	Critical thinking, oral communication, motivation development of self and others	20%	Individual	Participation rubrics
6. Final quiz	ILO 1, ILO2, ILO3,	Acquisition of knowledge, problem solving	20%	Individual	N.A

	ILO4, ILO5	and decision making			
Total			100%		

****NOTE:** Final marks for the team component will be moderated based on peer evaluation.

E) Formative feedback

Feedback is central to this course. You will receive written feedback from me and students in the class about your presentations.

F) Learning and Teaching approach

Approach	How does this approach support you in achieving the learning outcomes?
Seminars	The interactive seminar session where there is ample opportunities for open discussion on the conceptual questions raised in the class allows students to think critically and share their ideas and concepts with the class. This also allows me to get the concepts clearly through the entire class by involving students and ensure that the targeted learning outcomes are being achieved. In addition, the seminar will be used to get feedback on progress made on your field project assignments
Experiential field exercise	A unique part of this course is the experiential exercise that students will do outside of class throughout the semester. In this experiential exercise, students will have to talk to potential customers and other participants in the entrepreneurship eco-system to develop their business model. This entails creating a number of memos throughout the semester where students have to work on various parts of the business plan. These memos will also be presented in class to enable students to get feedback from the instructor and from other students.
Individual assignment(s)	The assignments require students to show an understanding of how a new venture creates value.
In-Class activities	Some learning outcomes for this course are skills which are practical in nature and cannot be achieved by reading and writing. The achievement of such learning outcomes requires hands-on experience, in-class activities provide such opportunities. In particular, the in-class activities are skill based in which students get a chance to learn how to design various parts of what makes a new venture viable.

G) Reading and References

COURSE TEXTBOOK:

- Bill Aulet, 2013 Disciplined Entrepreneurship, Wiley (DE)

Optional Readings:

- Steve Blank & Bob Dorf, 2012 The Startup Owner's Manual, K&S Ranch Publishing
- Osterwalder & Pigneur, 2009, Business Model Generation, Wiley (BMG)
- Mullins & Komisar, 2009, Getting to Plan B, Harvard Business Press.

H) Course Policies and Student Responsibilities

(1) General

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for seminar sessions they have missed. You are expected to participate in all seminar discussions and activities.

(2) Absenteeism

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies.

If you miss a seminar, you must inform the course instructor via email prior to the start of the class.

I) Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

J) Course Instructors

Instructor	Office Location	Phone	Email	Consultation Hours
Professor Foo Maw Der	S3-B1B-68	67906405	mawderfoo@ntu.edu.sg	<i>By prior appointment via email</i>

K) Planned Weekly Schedule

Week	Topic	ILO	Readings/ Activities
1	Course introduction	ILO 1	Syllabus/ Ice breaker
2	IdeaLab Exercise	ILO 2	IdeaLab Exercise/ Design Thinking
3	Business Model	ILO 4, ILO 5	Business Model Generation Chapter 1/Disciplined Entrepreneurship (DE) Chapter 2
4	Market Considerations	ILO 2, ILO 3	DE Chapters 2 and 3
5	Total Assessable Market, Persona and Customers	ILO 4	DE Chapters 4, 5, & 9; Memo #1
6	Value propositions, life cycles and product specification	ILO 4	DE Chapters 6, 7, 8, & 10; Memo #2
7	Customer acquisition	ILO 4, ILO 5	DE Chapters 11 to 13; Memo #3
8	Building the entrepreneurial team	ILO 3, ILO5	Entrepreneur spotlight video
9	Field project update; Guest speakers	ILO 1, ILO2	DE Chapter 13 and 18; Memo #4
10	Pricing, long term value	ILO 5	DE Chapters 15 and 16
11	Cost of customer acquisition	ILO 4, ILO 5	DE Chapters 19, 22, and 23; Memo #5
12	Stepping back: Intellectual property issues in new ventures	ILO 3	Individual pitch videos; Memo #6
13	Lessons learned presentations	ILO 2, ILO 3, ILO 4, ILO 5	Memo #7;

1. ASSIGNMENT: Entrepreneur spotlight video

Instructions for this Assignment:

The goal of the Spotlight Assignment is to provide your team exposure to an entrepreneur and for you to develop personal insights about entrepreneurship through the telling of the entrepreneur's story.

1. Select an entrepreneur. You are free to choose a person you deem to be an “entrepreneur” for the purpose of conducting an in-depth interview with them. The interview should be conducted face-to-face so as to allow you the ability to video the entrepreneur.
2. Need help selecting? If you do not have an entrepreneur in mind, or do not have easy access to one, please see me for ideas about how to proceed.
3. What you should talk about. You should prepare a list of questions for open discussion in advance of the interview. Your questions can include – but are not limited to – the issues listed at the bottom of this page. Find an insight or angle that you can center the video on.
4. What you need to turn in. You will need to upload a 3 minute video that tells an entrepreneur's story (who they are, what they do...etc) as well as some key insight(s) that you gained from the entrepreneur. This can be done through your words or carefully selected video material from the interview. It’s up to you!

***Possible Discussion Questions – these are ideas only; no need to answer them directly for this assignment unless you want to.

- What motivated you to start the business? Was it for love or money?
- Did you quit a job or did you use the start-up as a form of self-employment?
- Who were your key resource providers? What was the nature of your relationship with them?
- What unexpected challenges have you faced as an entrepreneur? What lessons have you learned?
- What aspects of entrepreneurship have you found harder than anticipated? What has been easier?
- What has been the biggest surprise to you in your entrepreneurial career? Why?
- Has the venture been “successful”? Why? What is your idea of success for the venture?
- Do you recommend the life of an entrepreneur?
- Who should be an entrepreneur? Who shouldn’t?
- Would you do it again, knowing then what you know now?

Your classmates will evaluate this assignment. Specifically, they are asked to evaluate the video and discussion following the video on a 10 point scale (with 1=strongly disagree and 10=strongly agree) on these dimensions:

1. The group put in a lot of effort to enhance our learning.
2. The video helped me to understand more about the entrepreneurial process/challenges.
3. The video provided good insights.
4. Overall, this was a well conducted interview.

2. ASSIGNMENT RUBRIC: Entrepreneur spotlight video

Please circle the number that best represents your evaluation of the video and discussion following the video:

	Strongly disagree									Strongly agree
	1	2	3	4	5	6	7	8	9	10
Video presents relevant information. These information are supported with strong evidence.										
The video helped me to understand more about the entrepreneurial process/challenges.										
Video provides key takeaways /insights are useful for my learning										
Overall, this was a well conducted interview.										
The group led a good discussion using effective questioning techniques that engages the class to participate										

7 memos + presentations

MEMO INSTRUCTIONS

MEMO 1: Business Model

An important part of your Feasibility Analysis will be testing out various dimensions of your business model. For this reason, I am requiring you complete this assignment as a team to ensure you have thought through all aspects of this framework in order to help you identify what areas are most critical and/or weak.

Step 1: Using Osterwalder's framework, create hypotheses for each of the 9 boxes of the model that must be tested in order to assess whether or not the product/service idea is feasible. In your memo, elaborate these hypotheses and explain why these are major hypotheses for your business model.

Step 2: In the memo, for each of the hypotheses, elaborate and explain the sources of data you think you will need (individual responses, market statistics...etc.) and how you plan to collect it (interviews, library databases...etc.). Be as detailed as possible. For instance, include references to the sources of data.

MEMO 2: Market Segmentation

One important element in a feasibility analysis is a solid understanding of the marketplace for your potential customers. Conducting a marketing segmentation analysis is the first step to such an understanding. For this memo, you will need to do the following to gain important insights into where you establish your beachhead market.

Step 1: Recall the IdeaLab exercise we did in class. We took a market problem and looked at multiple solutions and multiple markets those solutions could apply to. In this step, identify 5 to 10 particularly interesting market opportunities for the project you are working on. The following questions may be helpful as you think through the different market segments.

-Is the target customer well-funded?

-Is the target customer readily accessible to your sales force?

-Does the target customer have a compelling reason to buy?

-Is there entrenched competition that could block you?

-If you win this segment, can you leverage it to enter additional segments?

-Is the market consistent with the values, passions and goals of your founding team?

In the memo, list these market opportunities and explain why you chose these opportunities.

Step 2: For each of the market opportunities identified, gather the following information (see list below). In order to collect this data it may require that you move beyond Google and actually talk to your potential customers. In fact, this may be the most important kind of data you can be gathering at this stage. In your memo, elaborate on the 9 items below and where relevant provide references for sources of data.

1. **End user** – Who will be the one using your product/service
2. **Application** – What will the end user be using it for?
3. **Benefits** – What is the actual value to the end user of using it?
4. **Lead customers** – Who are the most influential users that could help drive adoption?
5. **Market characteristics** – What about this market will help drive/hinder adoption?
6. **Partners/Players** – Which companies will you need to work with to provides a solution that integrates into the customers' workflow?
7. **Size of market** – Roughly, how many potential customers exist if you achieve 100% penetration?
8. **Competition** – Who, if anyone, is making similar products (real or perceived)?
9. **Complementary assets required** – What else does your company need to provide the full solution?

MEMO 03:

Now that you have identified 1 to 2 potential market opportunities, you need to narrow it to 1 that will serve as your beachhead market. It may be necessary at this stage to further define your market to ensure you are looking at the right level. Here are three criteria that Geoffrey Moore (*Inside the Tornado*) argued would allow for efficiencies of scale.

1. The customers within the market all buy similar products.
2. The customers within the market have a similar sales cycle and expect products to provide value in similar ways. (sales people can shift from one potential customer to another with no loss of productivity).
3. There is “word of mouth” between customers in the market.

Step 1: In your memo, identify 1 potential market opportunity that meets the criteria mentioned above. In the memo, explain why you selected this beach head instead of the other market segments identified in memo 2.

Step 2: Now that you have identified a specific beachhead market, you need to learn about your target customer. This is extremely important as you must build your business around the customer you are serving. As part of this be careful to understand the difference between the End User and the Decision Making Unit (sometimes they are the same and other times they are not)

- **End User** – A real person who will be using the product.

- **Decision Making Unit** - The individual(s) who decide whether to buy your product. It might consist of:
 - *Champion* - The person who wants the customer to purchase the product
 - *Primary Economic Buyer* – The person with authority to spend money to purchase the product
 - *Influencers, Veto-power, purchasing department* – People who have sway or direct control over the purchasing behavior.

As part of your End User profile, identify the critical demographics/aspects of the user from the following characteristics.

- Gender
- Age range
- Income range
- Geographic location/preference
- What motivates them?
- What do they fear most?
- Who is their hero?
- Where do they go for vacation? Dinner? Before work?
- What newspapers do they read? Websites they visit....etc.?
- What are the general reasons they are buying the product?
- What makes them special and identifiable?
- What is their story?

In a memo, provide a detailed description of the user profile.

Step 3: From the user profile, create a persona, that is a "prototypical" customer.

In the memo, describe the persona. Remember, describe the persona as if you are describing a good friend, or someone that you know very well.

Step 4: The final step for this memo is to calculate your TAM (Total Addressable Market) projection. This is how much revenue would be generated with 100% penetration. To accomplish this calculation, do the following:

1. **Bottom-up Analysis** – The first step is to calculate the number of end users that fit in your End-User Profile. Customer lists, trade associations and other sources of customer information can help you identify how many potential customers there are.
2. **Top-down Analysis** – Confirm your thoughts on the market size by finding information about how big this market might be in terms of dollars.
3. **Project TAM and its growth** – Using both the bottom-up and top-down analyses, project what you think is a reasonable estimate for TAM and justify it. Is it growing or not?

In the memo, do the bottom-up and top-down analysis and the projected TAM. Do provide supporting evidence of how you came up with these estimates.

MEMO 4: Competitor Testing and Positioning

You should be feeling like you have a better grasp on your target market and the end users who comprise it. For this memo, you will shift your thinking to the other solution providers in the market. Some of these competing products are very similar to yours and some are not similar at all, but have your end users locked up in some fashion (through contracts, status quo....etc.). Do the following and report on it in your memo.

Step 1:

- a. Identify 3 to 5 of your closest competitors that provide a solution very similar to the one you are proposing. In the memo, explain why they are your closest competitors.
- b. Next identify 3 to 5 competitors that compete in adjacent marketplaces, but not currently in your beachhead market, that have the resources to enter into your beachhead market if they chose to. In the memo, explain why you consider them to be in adjacent market places but could pose serious competitive threats.

In the memo, you should compare each of the competitors identified according to the key features that your End User desires as well as any additional relevant bases of comparisons (price, partners, channels...etc.).

Step 2: Once you are done with steps 1a and 1b, capture all of this information in a competitive matrix. Using your competitive chart, create a competitive positioning graph for your beachhead market. To make this chart, identify your End User's top two priorities (e.g. price, quality, entertainment value...etc.). Using the top two priorities, do the following for the memo:

1. Divide both the x-axis and y-axis into two halves
2. On the x-axis, write the number one priority of the End User.

3. The side closest to the origin represents the “bad state” and the other side represents the “good state.”
4. Do the same for the y-axis only with the number two priority.
5. Plot your business on the graph along with the competitors you identified. Also include the customer’s “do nothing” or “status quo” option

Step 3: Select three of your competitors (give bias to those that are closest to you) and conduct a user analysis on their solutions. Take their solutions for a test drive. In your memo report the following:

- What makes this solution interesting and compelling to your End User?
- What deficiencies or weaknesses does this solution have?
- What aspects/features will you need to incorporate?
- What aspects/features will you need to differentiate from?

Memo 5: Minimum Viable Product Interview

In order to collect relevant and usable market data that helps us understand whether or not this opportunity is viable or not, we need to create a *minimum viable product* as discussed in class. This can take many forms, but it becomes an important vehicle for data collection. For this memo, please do the following:

Step 1: With your team, create a minimum viable product that can be shown to at least 10 potential customers (have the characteristics of your End User Profile). Your memo should include a picture of the minimum viable product (if your MVP product is a physical prototype take a picture of the MVP and include it in the memo. Bring the prototype to class during the presentation. If your MVP is a description of the product/service, include these documents in the memo.)

Step 2: Interview 10 potential customers and demo the MVP with them. Ask them what they like, dislike about it. What thoughts or other suggestions do they have? What price would they be willing to pay for it in its current state? ...etc. In your memo, include the process for collecting this data, describe who you interviewed, why you selected them to be interviewed, and how you contacted them. In the memo, include the questions that plan to ask potential customers.

Note: During the interview, you can deviate from these questions if that is necessary to get insights/probe areas that will help you know more about how potential customers react to your minimum viable product.

Step 3: Capture your important findings and insights in the memo. Elaborate on your insights including but not limited to the questions in step 2 above (i.e., price, what they like/dislike, thoughts, suggestions).

Step 4: As a result of these interviews, explain in your memo whether your target market and End User Profile still fit? Explain how your target market and End User Profile is similar/different from your original description (i.e., memo 3). As a final part of this memo, identify your next 10 customers.

Memo 6: Mapping the Sale Process

At this point in your research, you should know quite a bit about your market and your competition. Utilizing what you have learned so far and gathering additional information, you will now map the sale process. As part of this process, you need to remember the distinction between the End User and the Decision Making Unit. For convenience I have included the earlier description of the DMU:

- **Decision Making Unit** - The individual(s) who decide whether to buy your product. It might consist of:

- *Champion* - The person who wants the customer to purchase the product
- *Primary Economic Buyer* – The person with authority to spend money to purchase the product
- *Influencers, Veto-power, purchasing department* – People who have sway or direct control over the purchasing behavior.

In order to map the sales process, please do the following:

Step 1: In the memo, outline your short-term (year 1) sales process. In the short-term, your primary focus is to create demand for your product and to fulfill orders for the product. In the early stages of a company this is a missionary effort where you have to engage directly with the customer often times. Describe your strategy and approach during the early stage phase.

Step 2: In the memo, outline your medium-term (years 2 & 3) sales process. In the medium term the focus shifts from demand creation toward order fulfillment as word of mouth and distribution channels take on some of the demand creation burden. Describe your strategy and approach during this middle stage of your company's development.

Step 3: In the memo, outline your long-term (years 4 & 5) sales process. In the long-term your sales group should focus on fulfilling customer orders. You should do very little demand creation, but will continue to do client management where needed.

In each of the three steps, be certain to elaborate why you decided on the sales process.

Typical Approaches to Sales:

Direct to consumer – interfacing directly with the end consumers (DMU and EU)

VARs – Value added resellers or distributor

Web-based techniques – in-bound marketing, emails, social media marketing...etc.

Telemarketing – Direct marketing via telephony

Key questions to consider that will help you think through the strategy and approaches needed:

- How does your target customer become aware that they have a problem or an opportunity?
- How will the target customer learn that there is a solution to this problem they have or learn there is the opportunity they did not previously know about?
- Once the target customer knows about your business, what is the education process that allows them to make a well-informed analysis about whether to purchase your product?
- How do you make the sale?
- How do you collect the money?

Memo 7: Pricing, LTV and COCA

Having mapped your sales process, you are now ready to determine your Pricing, Cost of Customer Acquisition (COCA) and Long Term Value (LTV) of your customer. This memo will have you outline the steps you took to identify each of these three critical aspects of your business as well as reporting your final measure for each.

Step 1: Pricing is a function of the business model you have chosen and how you quantify the value proposition for your customers. Look over the business model you have decided upon and the research from your MVP interviews. From this data start to play around with potential pricing structures until you settle on one that you feel will make the most sense to you (the company) and your customers. As part of this process, keep the following in mind:

1. *Costs shouldn't be the driving factor in deciding price – the value to the customer should be.*
2. *Use the DMU and the Sales Process Map to identify key price points (e.g. budgets and purchasing authority...etc.)*
3. *Understand the prices of the customer's alternatives*
4. *Different types of customers will pay different price*

Enthusiasts
Early adopters
Early majority
Late majority
Laggards

5. Be flexible with pricing for early testers

6. *It is always easier to drop the price than to raise it.*

In your memo, explain in detail the price for your product/service. Be certain to explain how you used information gathered from the business model, competitors' price, MVP interviews, and the value proposition of your product to determine the price.

Step 2: The Lifetime Value of your customers is a critical metric to understand. There are things you can do to raise and lower this figure as you move forward, but you need to be realistic with your current starting point. In order to calculate this number you will need to look at the following for your business:

1. **One time revenue stream, if any**
2. **Recurring revenue streams, if any**
3. **Additional revenue opportunities, if any**
4. **Gross margin for each of your revenue streams**
5. **Retention rate**
6. **Life of product**
7. **Next product purchase rate**
8. **Cost of capital for your business**

In your memo, using estimates for the above inputs, calculate LTV using the following formula:

Present Value = Profit X (1 – Cost of Capital)^t where t = number of years after year 0

Important considerations when establishing the Lifetime Value of your customer:

1. *The business model decision is very important*
2. *LTV is about profit, not revenue*
3. *Overhead costs aren't negligible*
4. *Gross margins make a big difference*
5. *Retention rates are very important as well*
6. *Finding additional real upselling opportunities can be very attractive*

Step 3: The Cost of Customer Acquisition is a critical metric to establish and gives meaning to the LTV measure we just established. Together they tell us a lot about the business idea you are working on. Separately they tell us very little. Having calculated your LTV, let's have you calculate your COCA by doing the following in your memo:

1. **Calculate Total Marketing and Sales Expense over Time [TMSE(t)]** – In order to estimate this variable, you need to think back to your mapping of the sales process and look at the 3

periods we identified (short, medium and long). Estimate your total marketing and sales expenses for each of those three periods.

2. Calculate Install Base Support Expense over Time [IBSE(t)] – This variable is the cost of retention for your customers. For example, how much of the marketing and sales spend consists of cost associated with retaining current customer rather than acquiring new ones. Estimate this for each of the 3 periods.

3. Calculate the number of New Customers over Time [NC(t)] – This final variable is the number of new customers you expect to add during this time period.

4. Use the following equation for each of the three time periods and chart out what your COCA is:

$$\text{COCA}(t) = \text{TMSE}(t) - \text{IBSE}(t) / \text{NC}(t)$$

5. In your memo, chart your COCA.

3. ASSIGNMENT RUBRIC: 7 memos + presentations

	1	2	3	4	5	6
Completed the requirements for the assignment						
Organization <ul style="list-style-type: none"> • Makes main point of message clear • Organizes information coherently 						
Data and information <ul style="list-style-type: none"> • Draw appropriate information based on the data gathered while recognizing the limitations of the analysis • Presents data and information in an effective format 						
The central theme of the memo and presentation is clear and provides a compelling and well thought out argument.						
Overall quality (1= poor to 6 = excellent)						

1 = no or to only a very small extent

2 = to a small extent

3 = to some extent

4 = to a moderate extent

5 = to a large extent

6 = excellent

ASSIGNMENT RUBRIC: Lessons learned presentation

	1	2	3	4	5	6
1. The analysis of the business opportunity was systematic and skillfully communicated in a succinct and fluent manner.						
2. The presentation provides insightful conclusions about the viability of the business opportunity.						
3. The presentation clearly demonstrates that the group has thoughtfully reflected on the main learning points from the memos and feasibility plan exercises.						
4. Presentation and well-thought through and provides clear takeaways.						

1 = no or to only a very small extent

2 = to a small extent

3 = to some extent

4 = to a moderate extent

5 = to a large extent

6 = excellent

5. ASSIGNMENT: Feasibility report

Feasibility Analysis Assignment

The culmination of your introduction to entrepreneurship is the creation of a feasibility study in which you and your team evaluate the viability and prospects for a start-up business concept that you have selected and studied. The purpose of undertaking a feasibility study is to “quickly” determine if a concept is worthy of further effort and development, or if it should be abandoned in favor of alternative opportunities.

The structure of the feasibility study generally follows the outline of the course. You can and should develop your feasibility report as the course progresses. If you wait until the final weeks of the course before getting started, you will find that this assignment is an onerous undertaking, especially since it requires a good deal of background research. Conversely, if you develop your feasibility study as the course unfolds, you will find the project to be straightforward, informative, and (hopefully) fun.

The feasibility study assigned here covers four of the seven “domains” described in the Mullins Framework: (1) Target Segment Benefits and Attractiveness, (2) Market Attractiveness, (3) Industry Attractiveness, and (4) Sustainable Advantage. Also, you will find these sections of the Mullins chapter to be helpful as you prepare your feasibility study:

Evaluation. Your report will be evaluated using the criteria set forth on the evaluation-scoring sheet that is attached to this assignment.

Outline. Your report should be no more than 5 pages in length (excluding cover sheet, executive summary, and appendices), and no more than 10-12 pages long total, all in. Please use the following outline for your report:

- Cover Sheet (1 page)
- Executive Summary (1 page maximum on a separate page)
- 1. Introduction (~ ½ page)
- 2. Customer and Product (~ 1 page)
- 3. Market Analysis (~ 1 page)
- 4. Industry/Competitor Analysis (~ 1 page)
- 5. Sustainable Advantage (~ ½ page)
- 6. Preliminary Financial Analysis (~ ½ page)
- 7. Recommendations (~ ½ page)
- Attachments and appendices (~5 pages)

Cover Sheet. Include a cover sheet with a title, authors, and date.

Executive Summary (1 page maximum on a separate page). Your executive summary should condense your entire report to one page. It should be a distillation of the whole report. Anyone reading the summary (e.g., a busy executive) should be able to understand the content and conclusions of your report solely from the executive summary (albeit without much detail or support). The executive summary is not an introduction to your report – it should stand alone,

independent of the rest of the report. Think of it as a one page “elevator pitch” that describes your business concept, its merits and drawbacks, and your recommendations.

1. Introduction (1-2 paragraphs). The Introduction is the overture to your report – it sets the mood and provides a context for the report itself. In public speaking, there is an old adage that says “Tell ‘em what you are going to say, tell ‘em, and then tell ‘em what you said.” This advice works well for written business communications as well. Your introduction should “Tell them what you are going to say.”

Answer the following questions in your introduction:

- What is the product that we are proposing (good or service)
- Who are our target customers? Why will they be interested in buying our product?
- What is the scale of the business are we proposing: A huge public company, a small lifestyle company, or something in between?
- What is our long-term goal or exit strategy: Go public, be acquired, or grow and sustain?
- What are our recommendations? Go forward, abandon, modify, wait ...?

2. Product and Customers (~1 page). In this section, describe the product (good or service) that you are considering, and then describe the target market and customer. Answer the following questions (adapted from Mullins Chapter 2):

- What exactly is the product or service that we propose to offer?
- What customer pain will our offering resolve? How strong an incentive do customers have to give us their money? Why will they buy?
- Who precisely are the customers that have the pain? Do we have detailed, accurate, and current information about whom they are, where they live or do business, and what they do?
- What benefits does our offering provide that other solutions don't?
- What evidence do we have that customers will buy what we propose to offer?
- What evidence can we provide to show that our target market has the potential to grow?

3. Market Analysis (~1 page). Describe the market that you will serve, its structure, and its current trends. Answer the following questions to help stimulate your thinking here:

- How large is the market we are seeking to serve (TAM)? How have you measured it?
- How fast has it grown over the last one/three/five years?
- How quickly will it grow in the next six months or two/five/ten years?
- What economic, demographic, sociocultural, technological, regulatory or natural trends can we identify that will affect our market?
- What effect, favorable or otherwise, will these trends have on our business?
- How does our proposed product fit into the current and future marketplace?

4. Industry Analysis (~1 page). What is the structure of the industry or industries in which you will participate? How will your proposed business fit in with (or change) the current industry paradigm?

Answer the following questions to help stimulate your thinking here:

- In what industry will we compete? Define carefully...

- Is it easy or difficult for companies to enter this market?
 - What is the relative power of buyers and suppliers in this industry?
 - How easily can substitute products be found for our offering?
 - Is competitive rivalry intense or genteel in this industry?
 - Based on all five forces, how attractive (or unattractive) is this industry?
 - Does your concept have the potential to change the structure of this industry? If yes, how?
- 5. Sustainable Competitive Advantage** (~ ½ page). Do you have a sustainable idea that you can protect from new or existing competitors? Answer the following questions to help stimulate your thinking here:
- Do we possess proprietary elements (patents, trade secrets, etc.) that other firms cannot duplicate or easily imitate?
 - Can our business develop and employ superior organizational or operational processes, capabilities or resources that others would have difficulty in duplicating or imitating? If yes, provide evidence!

6. Preliminary Financial Analysis (~ ½ page). What are “back of the envelope” estimates of the financial return that you might expect from your proposal? Does a quick calculation of financial returns suggest that your idea has financial merit? In this section, consider the following questions and discuss those that are relevant to your situation.

- What is our business model? What is our value proposition? How will we make money?
- Is our business model economically viable? Can we show that our company won't run out of cash quickly?
- Will our revenue be adequate in relation to the capital investment that we need and the margins we can get?
- How much will it cost us to acquire and retain customers (COCA AND LTV)?
- How long will it take us to attract customers?
- Will our gross margins be adequate to cover our necessary cost structure?
- How much cash must we tie up in working capital (inventory and other) and for how long?
- How quickly will customers pay?
- How slowly will suppliers and employees be paid?

7. Recommendations (~ ½ page). In this final section, “Tell ‘em what you said,” and wrap up your report with recommendations about next steps. Your recommendation might be to move forward with further investigation of your business concept by writing a complete business plan; or to gather further information before moving forward (be specific); or to significantly change the concept into something else; or to abandon the concept altogether and to move on to something new. Note that there is nothing wrong with recommending that an idea be dropped or radically changed. The whole point of a feasibility study is to determine if an idea is indeed a viable opportunity, or just an interesting idea without sufficient business merit to continue pursuing.

Appendices (~5 pages). Include tables, pictures, graphics, charts, and other exhibits in appendices to support your feasibility study. Choose these exhibits carefully to be certain that they add value to your report. More is not necessarily better.

5. ASSIGNMENT RUBRIC: Feasibility report (Business Plan)

	1	2	3	4	5	6
Content <ul style="list-style-type: none"> • Presents relevant information • Substantiates claims with strong evidence 						
Organization <ul style="list-style-type: none"> • Makes main point of message clear • Organizes information coherently 						
Data and information <ul style="list-style-type: none"> • Draw appropriate information based on the data gathered while recognizing the limitations of the analysis • Presents data and information in an effective format 						
The feasibility plan provides a compelling and persuasive argument in a clear and succinct manner.						
Overall quality (1= poor to 6 = excellent)						

1 = no or to only a very small extent

2 = to a small extent

3 = to some extent

4 = to a moderate extent

5 = to a large extent

6 = excellent

Peer Evaluation

Peer Evaluation Instructions

All members are required to complete a peer evaluation for each member of the team (i.e., including a self-assessment). The completed peer evaluation form must be submitted individually to the instructor immediately after the team project has been submitted for grading. Identity of appraisers will be kept **confidential** and will not be revealed to other team members.

We will use a member's ratings (on a scale ranging from 1 to 7) to award marks for the team project to other members by computing the average rating that a member receives from other members (i.e., excluding each member's self-rating). A member's mark for the team project will be computed as follows:

1. If a member's average rating is ≥ 4 , the member will receive **100%** of the overall mark awarded to the team project.
2. If a member's average rating is < 4 but ≥ 3 , the member will receive **80%** of the overall mark awarded to the team project.
3. If a member's average rating is < 3 but ≥ 2 , the member will receive **50%** of the overall mark awarded to the team project.
4. If a member's average rating is < 2 , the member will receive **30%** of the overall mark awarded to the team project.

CONFIDENTIAL PEER EVALUATION FORM FOR TEAM PROJECT

Member's name: _____

Seminar group and team number: _____

Please use the attached Peer Evaluation Rubric to evaluate yourself and your team members on each of the 5 stated attributes (on a scale of 1 to 7). State your ratings for yourself and each of your team members in the table below. For your self-assessment, insert "(Self)" after your name in the table below.

Index #	Name of team members	1 - RR	2 - CM	3 - CR	4 - CT	5 - RS	Average Rating
1							
2							
3							
4							
5							
6							

If any of your ratings above is **< 4**, please provide a brief explanation to justify the ratings.

Index #	Brief explanation to justify a rating of < 4

You may attach supporting documents (like emails and screen shots), if any, to support your explanations above.

Teamwork & Interpersonal Skills (Peer Evaluation) Rubric**Learning Objective: The ability to work effectively with others in a group setting.**

Traits	Performance	
<u>1. Roles and Responsibility (RR)</u> Behaves professionally by upholding responsibility and assuming accountability for self and others in progressing towards the team's goal.	Scant Unclear about his/her own role; refuses to take a role in the group; insists to work individually and has limited coordination or communication with others.	Substantially Developed Always fulfills responsibilities; performs his/her role within the group with enthusiasm and demonstrates willingness to work collaboratively.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>2. Communication (CM)</u> Identifies appropriate mechanisms to coordinate and correspond with team members.	Scant Modes of communication are not appropriate, causing confusion and miscommunication among team members.	Substantially Developed Modes of communication are appropriate, and maintaining timely communication and correspondence with team members.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>3. Conflict Resolution (CR)</u> Resolves conflicts using a variety of approaches.	Scant Does not recognize conflicts or is unwilling to resolve conflicts.	Substantially Developed Consistently resolves conflicts through facilitating open discussion and compromise.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>4. Contributions (CT)</u> Contributes positive input for the team; effectively utilizes one's knowledge and expertise.	Scant Largely disinterested in working in a group and refuses to participate; observes passively or is unwilling to share information with other team members.	Substantially Developed <u>Actively attends and participates in all activities and provides meaningful contribution in articulating ideas and opinions.</u>
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		
<u>5. Relationship (RS)</u> Maintains cooperative interaction with other team members regardless of individual /cultural differences and respects diverse perspectives.	Scant Rarely listens to others and does not acknowledge the opinions that differ from his/her own.	Substantially Developed Engages in respectful relationships with all other members in the team. Embraces and accepts diverse points of view without prejudice.
Evaluation: Scant <u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> Substantially Developed		

References:

Teamwork Value Rubric - Association of American Colleges and Universities. Retrieved from <http://www.aacu.org/value/rubrics/pdf/teamwork.pdf>

Class Participation Rubric

Traits	Performance		
	1	2	3
Engagement	Hardly focuses in class (e.g. using mobile phone, unnecessary chatting)	Occasionally engages in distracting activities (e.g. using mobile phone, unnecessary chatting) in class.	Engages fully in class
Contribution frequency	Does not speak up/contribute in class	Occasionally speaks up/contributes in class	Speaks up/contributes in all classes
Contribution quality	No contributions/Contributions lack substance	Contributions demonstrate knowledge of subject matter	Contributions are constructive and insightful

Annex B- List of NBS Learning Goals

LEARNING GOAL	LEARNING OBJECTIVE	CHECK
TASK SKILLS		
Acquisition of Knowledge	The ability to describe the knowledge, skills required of and challenges faced by startup entrepreneurs. The ability to develop a feasibility plan to analyze the viability of a business opportunity.	<input checked="" type="checkbox"/>
Ethical Reasoning	The ability to recognize and understand ethical issues, and apply sound ethical reasoning.	<input checked="" type="checkbox"/>
Critical Thinking & Creative Thinking	The ability to define, examine, evaluate, analyze and synthesize various arguments and knowledge to form independent judgment.	<input checked="" type="checkbox"/>
	The ability to provide insight in an innovative way characterized by high degree of adaptiveness.	<input checked="" type="checkbox"/>
Problem Solving & Decision Making	The ability to identify problem, generate a plan to solve problem, implement and evaluate the plan and make sound business decision.	<input checked="" type="checkbox"/>
Planning & Execution	The ability to set clear priorities and plans of action for the task and define task objectives to fulfill goals within a planned schedule for execution.	<input checked="" type="checkbox"/>
PEOPLE SKILLS		
Oral Communication & Written Communication	The ability to communicate well with others verbally so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input checked="" type="checkbox"/>
	The ability to communicate well with others in writing so that it clearly expresses the intended message and is understandable and useful to the receiving party.	<input checked="" type="checkbox"/>
Negotiation	The ability to systematically plan and prepare for negotiation and apply negotiation skills in personal and professional practice.	<input type="checkbox"/>
Cultural Intelligence	The ability to function effectively in situations characterized by cultural diversity.	<input type="checkbox"/>
Teamwork & Interpersonal Skills	The ability to work effectively with others in a group setting.	<input checked="" type="checkbox"/>
Motivation & Development of Self & Others	The ability to develop a better understanding of one's strengths and weaknesses, and learn to view others and mistakes positively as sources of personal and professional development.	<input checked="" type="checkbox"/>

Please write to NBS Accreditation office (nbsacro@ntu.edu.sg) for sample rubrics.

Action Words for Bloom's Taxonomy					
Knowledge	Understand	Apply	Analyze	Evaluate	Create
define	explain	solve	analyze	reframe	design
identify	describe	apply	compare	criticize	compose
describe	interpret	illustrate	classify	evaluate	create
label	paraphrase	modify	contrast	order	plan
list	summarize	use	distinguish	appraise	combine
name	classify	calculate	infer	judge	formulate
state	compare	change	separate	support	invent
match	differentiate	choose	explain	compare	hypothesize
recognize	discuss	demonstrate	select	decide	substitute
select	distinguish	discover	categorize	discriminate	write
examine	extend	experiment	connect	recommend	compile
locate	predict	relate	differentiate	summarize	construct
memorize	associate	show	discriminate	assess	develop
quote	contrast	sketch	divide	choose	generalize
recall	convert	complete	order	convince	integrate
reproduce	demonstrate	construct	point out	defend	modify
tabulate	estimate	dramatize	prioritize	estimate	organize
tell	express	interpret	subdivide	find errors	prepare
copy	identify	manipulate	survey	grade	produce
discover	indicate	paint	advertise	measure	rearrange
duplicate	infer	prepare	appraise	predict	rewrite
enumerate	relate	produce	break down	rank	role-play
listen	restate	report	calculate	score	adapt
observe	select	teach	conclude	select	anticipate
omit	translate	act	correlate	test	arrange
read	ask	administer	criticize	argue	assemble
recite	cite	articulate	deduce	conclude	choose
record	discover	chart	devise	consider	collaborate
repeat	generalize	collect	diagram	critique	collect
retell	give examples	compute	dissect	debate	devise
visualize	group	determine	estimate	distinguish	express
	illustrate	develop	evaluate	editorialize	facilitate
	judge	employ	experiment	justify	imagine
	observe	establish	focus	persuade	infer
	order	examine	illustrate	rate	intervene
	report	explain	organize	weigh	justify
	represent	interview	outline		make
	research	judge	plan		manage
	review	list	question		negotiate
	rewrite	operate	test		originate
	show	practice			propose
	trace	predict			reorganize
	transform	record			report
		schedule			revise
		simulate			schematize
		transfer			simulate
		write			solve
					speculate
					structure
					support
					test
					validate