ECE 188

Project Planning and Product Development

New Venture Formation – Traditional Approach

1. Come up with a concept / product idea

2. Put together detailed business plan and product development plan

3. Raise sizeable investment to support product development and R&D

4. Assemble engineering team, design and build product(s)

5. Sell product(s) and make tons of $$$

What could possibly go wrong?

Product Development – Traditional Approach

1. Conduct extensive research on your idea / product

2. Come up with a concept / product idea

3. Put together detailed product development plan

   a. Detailed product / design specs

   b. Detailed project plan – Gannt Chart

4. Allocate resources, design and build product according to dev plan

What could possibly go wrong?

Example Gantt Chart

Strategic Plan for New Business

#	Name	Duration	Start	Finish
1	Self-Assessment	23,0 d	03.01.2011	05.01.2011
2	Define business vision	1,0 d	03.01.2011	03.01.2011
3	Identify available skills, information and support	1,0 d	04.01.2011	04.01.2011
4	Decide whether to proceed	1,0 d	05.01.2011	05.01.2011
5	Define the Opportunity	10,0 d	06.01.2011	19.01.2011
6	Research the market & competition	1,0 d	06.01.2011	06.01.2011
7	Interview owners of similar businesses	5,0 d	07.01.2011	13.01.2011
8	Identify needed resources	2,0 d	14.01.2011	17.01.2011
9	Identify operating cost elements	2,0 d	18.01.2011	19.01.2011
10	Evaluate Business Approach	4,0 d	20.01.2011	25.01.2011
11	Define new entity requirements	1,0 d	20.01.2011	20.01.2011
12	Identify on-going business purchase opportunities	1,0 d	21.01.2011	21.01.2011
13	Research franchise possibilities	1,0 d	24.01.2011	24.01.2011
14	Summarize business approach	1,0 d	25.01.2011	25.01.2011
15	Evaluate Potential Risks and Rewards	7,0 d	21.01.2011	31.01.2011
16	Assess market size and stability	2,0 d	21.01.2011	24.01.2011
17	Estimate the competition	1,0 d	25.01.2011	25.01.2011
18	Assess needed resource availability	2,0 d	26.01.2011	27.01.2011
19	Evaluate realistic initial market share	1,0 d	28.01.2011	28.01.2011
20	Determine financial requirements	2,0 d	26.01.2011	27.01.2011
21	Review personal suitability	1,0 d	28.01.2011	28.01.2011
22	Evaluate initial profitability	1,0 d	31.01.2011	31.01.2011
23	Review and modify the strategic plan	2,0 d	01.02.2011	02.02.2011
24	Confirm decision to proceed		03.02.2011	

New Venture Formation – Lean Launch

"A startup is a temporary organization designed to search for a repeatable and scalable business model." – Steve Blank

1. Come up with a concept / product idea. TREAT AS A HYPOTHESIS!

2. Obtain immediate market validation / feedback

   a. Survey / interview partners, customers, etc.

   b. MVP: Minimum Viable Product

   c. Pivot when necessary

   d. Iterate and repeat

3. Raise small seed fund for initial work, then more $$$ after validation

   a. Friends & Family

   b. Crowd funding

   c. Angel investors

Alex Osterwalder's Business Model Canvas

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
• Who are our key partners? • Who are our key suppliers? • Which key resources are we acquiring from partners? • Which key activities do partners perform?	• What key activities do our value proposition require? • Our distribution channels? • Customer relationships? • Revenue streams?	• What value do we deliver to the customers? • Which one of our customer's problems are we helping to solve? • What bundles of products and services are we offering to each customer segment? • Which customer needs are we satisfying?	• What type of relationship does each of our customer segment expect us to establish and maintain with them? • Which ones have we established?	• For whom are we creating values? • Who are our most important customers?

Key Resources

• What key resources do our value proposition require?
• Our distribution channels?
• Customer relationships?
• Revenue streams?

Channels

• Through which channels do our customer segments want to be reached?
• How are we reaching them now?
• How are our channels integrated?

Cost Structure

• What are the most important costs inherent in our business model?
• Which key resources are most expensive?
• Which key activities are most expensive?

Revenue Streams

• For what value are our customers really willing to pay?
• For what do they currently pay?
• How are they currently pay?
• How would they prefer to pay?
• How much does each revenue stream contribute to overall revenues?

Agile Product Development (adapted)

1. Conduct preliminary research on your idea / product, sketch out initial concepts.

2. Identify key questions, risks, and unknowns.

3. Identify prototype ideas that can give insight on questions / risks / unknowns. Begin prototyping, iterating, and testing.

    a. Start simple – optimize for speed of feedback over quantity

    b. "Sprints"

    c. "Scrums"

4. Refine and repeat.

5. Goal is to break the problem into small "chunks" that can be readily addressed and obtain quick learning/feedback.

6. Feedback is key!