

Startup in ICT – F. d'Alessi – 5/7/2023 – (Theory)

Name: _____

Matr: _____

Q1. When we talk about "the third Mission of the University", what are we referring to?

1. Persuade researchers and professors to provide consultancies also outside the university.
2. Improving post-lauream education with technology-oriented Innovation courses.
3. Bring the outcome of research into the market and the real society.

Answer:

Q2. During the course we have considered Steve Blank six categories of startups. Would you please list them and say where you think a small shoe repair shop belongs to?

Answer:

Q3. In Ash Maurya Lean Canvas, can you describe what the "Key Metrics" square describes?

Answer:

Q4. What does Steve Blank's "Get out of the building!" sentence refer to?

1. Don't look for answers in the computer, go talk to people!
2. Don't spend too much time in front of the computer or you will get exhausted, get out and enjoy.
3. Don't spend too much time in the university but find a job as soon as possible.

Answer:

Q5. What is the key element that comes into play when passing from the Problem/Solution Fit phase to the Product/Market Fit one?

Answer:

Q6. What does the Lean Startup Methodology deal with?

1. It deals with implementing Toyota Lean Production methods into a startup.
2. It deals with implementing rapid, iterative market checks to validate a product idea.
3. It deals exclusively with Agile software development.

Answer:

Q7. Considering three different types of investors, please put them in the order you expect them to interact with a startup going from its first days to its scale-up phase:

1. Venture Capital
2. Business Angels
3. FFF

Sequence:

Q8. What is a key success factor of platform business models?

1. The Web Effect.
2. Being more "actual" (while traditional pipeline models are "old").
3. The Network Effect.
4. The higher speed of the Internet.

Answer:

Q9: How would you describe a specific "Budget", in a startup?

1. It's the cumulated revenue and expenses of the previous year.
2. It's an estimation of revenue and expenses in a future period of time.
3. It's the cumulated revenue and expenses of the previous months of the current year.

Answer:

Q10: Why are stock options such a valuable tool for companies?

1. It is an additional way for the company to generate revenues.
2. It is a way to distribute the company shared to small investors.
3. It is a way for a company to keep valuable employees linked and committed to the company.

Answer:

Q11. To see if a company is profitable, what kind of data would you be looking for?

1. Number of orders.
2. EBITDA.
3. Number of employees.

Answer:

Q12. Draw here the Lean Canvas and fill it for either (your choice) Uber or Amazon or AirBnB.

RoboCutter

Sheila and David are friends who studied at the same Engineering department and worked on a novel way to optimize wood cutting by applying a Vision-based AI algorithm to minimize wood cutting process wastes and performing high quality cuts maximizing the value of wood natural features. Their algorithm works well in a laboratory environment, simulated by Matlab. Now they are thinking to leave the university and launch a startup offering this technology to wood cutting machinery manufacturers.

Q13. If you suggested them to start looking for a first limited investment, how would you use such an investment?

1. Look for money! You have to run and industrialize the product as soon as possible!
2. Do an Advertising Campaign to have orders as soon as possible!
3. Go and perform some interviews to validate your product ideas as soon as possible!

Answer:

At a fair, Sheila and David meet Mark, an old friend working as a sale agent for a big company distributing wood cutting machinery. Very useful link! They talk to Mark about their idea and Mark gives them big insights on the industry, confirming their ideas: nobody is currently offering that feature yet!! Sheila and David decide to propose to Mark to join them and build a startup. Mark accepts. Since he is already working, he will dedicate to the company just a day every week. Sheila and David, instead, will work full time – Sheila will take the role as the CEO and will follow sales and market development, while David, who has always been the “software wizard”, will act as the CTO and develop the algorithm. As far as the initial investment which they need, Mark accepts also to help putting in the company € 15.000, which is the only money they have! They three meet and decide to split the equity in 55%, 30% and 15%.

Q14: How would you assign the stocks and why?

Answer:

RoboCutter is born. Sheila, David and Mark quickly consume the initial € 15.000 but the more they go on with their plan, the more it becomes evident they have “something”. At a startup competition they present the idea and they meet Eric, a guy with good personal wealth and a personal passion for startups. Eric approaches them and offers them to buy the 20% of RoboCutter for € 44.000, but asking the three friends to subscribe to an acceleration program (the acceleration program asks € 4.000 in cash plus 5% of the startup company).

Q15: by looking at Eric profile and investment amount would you classify him as:

- A Business Angel
- A Venture Capital
- FFF

Answer:

Q16: what is the pre-money evaluation of the startup given by Eric

Answer:

Q17: what is the post-money evaluation of the startup given by Eric

Answer:

Q18: what is the value in € of the acceleration program?

Answer:

Q19: Write RoboCutter Cap Table after Eric entry and the participation to the Accelerator program:

Shareholder	Quota %
Sheila	
David	
Mark	
Eric	20%
Accelerator	5%
Total	100%

In a few months the cash runs low but RoboCutter idea looks more and more promising. Sheila already presented a demo at a wood cutting equipment fair. Eric introduces the three friends to a Business Angel network, where they obtain an investment plan by RCI (part of the Business Angel Network), in two steps: a first step of € 100.000 for the 10% of the company, and a second step of € 100.000 for a further 10%, provided that RoboCutter (a) completes the product and obtains the certifications and (b) the first commercial contract is signed. RCI also requests, at the end of step 2, to convert RoboCutter in a SpA with 200.000 shares, reserving the 10.000 shares for stock options.

Q20: Write RoboCutter Cap Table after step 1.

Shareholder	Quota %
Sheila	
David	
Mark	
Eric	
Accelerator	
RCI	10%
Total	100%

Q21: And after step 2.

Shareholder	Quota %	Shares
Sheila		
David		
Mark		
Eric		
Accelerator		
RCI	20%	10.000
Stock Options		200.000
Total	100%	

Q22: What is RoboCutter value after step 2?

Answer:

Q23: What is the value of a single RoboCutter share?

Answer:

RoboCutter does really well and closes very important contracts on the market. RCI and Eric, thanks to their network, approach a Venture Capital firm which is open to give RoboCutter the important funding needed to scale. Sheila needs to setup a very important pitch to convince the Venture Capital firm to join.

Q24: What kind of pitch would you suggest to setup?

1. The same pitch that RoboCutter used to convince Eric to join! After all, if it worked with Eric at the beginning of RoboCutter history, why should it fail now?
2. A very numeric pitch dealing with the economic results of the last years and projecting the results of the following 3-5 years, with a very clear forecast of the increase of the number of customers, sales, revenues, EBITDA, a milestone plan and so forth.
3. A very technology-oriented pitch talking about how superior RoboCutter technology is, how it compares to similar products on the market, surpassing all of them.

Answer:

The Venture Capital firm invests! They buy the 20% of RoboCutter on new stocks for 1.5M€, asking the liquidation preference with full participation.

Q25: Write the new Cap Table (shares only):

Shareholder	Quota %	Shares
Sheila		
David		
Mark		
Eric		
Accelerator		
RCI		
Stock Options		
Venture Capital firm		50.000
Total	100%	250.000

Q26: What is the pre-money value of RoboCutter agreed by the Venture Capital firm?
Answer:

Q27: What is the post-money value of RoboCutter agreed by the Venture Capital firm?
Answer:

Q28: What is the value of a single RoboCutter share after the investment?
Answer:

One of the clauses that the Venture Capital firm requested in the investment contract is a Bad Leaver option to Sheila and David – if the Bad Leaver clause triggers for one of them, he/she will have to sell all of the shares to the other shareholders at a fixed price of 1€/share. Unfortunately, after some months since the entry of the VC firm, Sheila experiences a severe health issue and needs to retire.

Q29: Rewrite the Cap Table after this happening (and considering IF the Bad leaver clause applies):

Shareholder	Quota %	Shares
Sheila		
David		
Mark		
Eric		
Accelerator		
RCI		
Stock Options		
Venture Capital firm		50.000
Total	100%	250.000

After Sheila's departure RoboCutter management starts to become very unclear and the company stalls. Both RCI and the Venture Capital firm find it difficult to hire a CEO with Sheila's vision and capabilities but by chance the Venture Capital firm finds an industry interested to purchase the company and its whole shares for a final global value of 6.7M€.

Q30: Please write the money going to each Shareholder after the sale of RoboCutter.

Shareholder	Money
Sheila? (you decide based on q29)	
David	
Mark	
Eric	
Accelerator	
RCI	
Stock Options	
Venture Capital firm	
Total	€ 6.700.000