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Acquiring the first customer for newly formed academic spin offs

Swarnava Mitra

Project Management

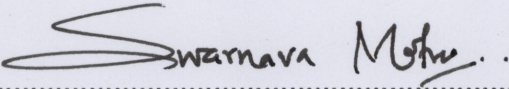
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Supervisor: Tim Kristian Andreas Torvatn, IØT

Norwegian University of Science and Technology
Department of Industrial Economics and Technology Management

DECLARATION BY CANDIDATE

I hereby declare that this thesis is my own work and effort and where other sources of information has been used, they have been acknowledged .

Signature 

Date..... 11 JUNE 2012

Place..... TRONDHEIM, NORWAY

Abstract

Purpose-Getting the first customer for an academic spin off is usually difficult ,as the company formed is yet to build a market reputation for themselves .Also the spin off suffers from lack of trust as it is basically in a nebulous stage .Now the academic spin offs formed usually has a member associated with a university or a research organization and brings in along with them oodles of experience .Now the combined experience of all the members gives the organization and already established social network ,social network enriched with information and resources So what the first part of the thesis looks into is how spin offs actually utilize this social network to reach their first customer .The study is performed in respect to the trust build with all the players of the network and how information is processed in the network .The second part looks into is after they get their first customer how does the spin off utilize their first customer to improve their product so that they have to do less customization of their product for the second customer, but care should also be taken that over customization for their first customer would actually lead into a lock in effect with their first customer making their product for their second customer irrelevant. Now it also looks into the fact that how the relationship formed with the first customer in respect to trust gained while receiving feedbacks about their product and incentives offered by the company to the first customer helps the company being referred to the second customer.

Design/Methodology-The empirical research was carried out with interviews done with spin off companies from Norway, Switzerland, Sweden and Belgium the reason for choosing them was they have been placed very high in the innovation index. After the interviews were done they were mapped against four different archetypes formed on the basis of two dimensions, the social networking orientation and the first customer orientation of the company. After mapping the business models followed by companies the model which performed the best was taken and accordingly a hypothesis was made.

Findings-The cross case analysis performed presents the different business models in practice , the nature of the study being exploratory in nature a firm conclusion on which business model is the best practice is a bit difficult to make. For that to happen a very intensive and rigorous quantitative study is necessary .The proposition made here is that the spin off with a high social network orientation and high level of involvement with the first customer tends to be more successful in launching their company

Practical Implication-The successfulness of a spin off and the model followed by them can serve as a guidance for future entrepreneurs trying to launch their business .So the study of the different business models specially during the initial seed stage of any start up is important ,when the survival of the company is of main concern .

Keywords: *Academic spin offs, Social Network theory, Entrepreneurial marketing ,Relationship Marketing,*

Acknowledgement

I did my Master thesis in the department of Industrial Economics and Technology Management specializing in entrepreneurship and innovation .During my thesis I conducted few research interviews, with founders and co-founders of spin off companies .Among whom I would like to thank all the interviewees for their entrepreneurial insight ,which was really helpful, I would also like to thank for their prompt replies .

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Especially I would like to thank my advisor Tim Torvatn for his assistance, for helping me design the research questions , select appropriate theory to do the research ,formulate the research ,without his assistance this project would not have been possible .I would also like to thank Bjørn Otto for his insightful remarks time and again ,helping me to simplify my approach .

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Index

1. INTRODUCTION	10
1.1 PREVIOUS WORK DONE	12
1.2 THE RESEARCH STATEMENT	13
1.3 RESEARCH GOALS	14
1.4 RESEARCH SCOPE.....	15
1.5 ORGANIZATION OF THE THESIS	16
2 RESEARCH METHODOLOGY	19
2.1 RESEARCH STRATEGY.....	19
2.2 DRAWBACKS OF SELECTED STRATEGY	21
2.3 RESEARCH DESIGN.....	22
2.4 RESEARCH PROCESS	23
2.4.1 PILOT STUDY	25
2.5 SELECTION OF THEORY.....	27
2.6 DATA SELECTION AND COLLECTION.....	28
3. THEORETICAL BACKGROUND	33
3.1 SOCIAL NETWORK THEORY	33
3.1.1 SOCIAL NETWORK THEORY IN ENTREPRENEURSHIP	34
3.3 USING SOCIAL NETWORKS TO ENTER A MARKET STRATEGIC MODEL (CASSON AND GUISTA2007).....	46
3.4 GOVERNANCE STRUCTURE IN THE SOCIAL NETWORK	50
3.5. MARKETING AND ENTREPRENEURSHIP THE INTERFACING	52
3.6 THE CHARACTERISTICS OF ENTREPRENEURIAL MARKETING	55
3.7 CHARACTERISTICS OF RELATIONSHIP MARKETING IN ENTREPRENEURSHIP	56
4. EMPIRICAL RESEARCH	60
4.1 PRE STUDY OR PILOT STUDY OF INTERVIEW QUESTIONS WITH CO-FOUNDER OF LIM SIM AS.....	60
4.2 NORWAY	63
4.2.1 3D RADAR AS.....	64
4.2.2 MEMFOACT	66
4.2.3 BREIVOLL INSPECTION TECHNOLOGIES AS.....	67
4.2.4 TROMSØ TELEMEDICINE CONSULT AS.....	69
4.2.5 MISA AS.....	71
4.3 SWITZERLAND	73
4.3.1 ECOSPEED AG.....	74
4.3.2 REGIOCONCEPT AG.....	75
4.3.3 K –TEAM	76
4.3.4 BLUEBOTICS SA	78
4.3.5 CHEM AIDE	80

4.3.6 CETRA FIDES GMBH.....	82
4.4 SWEDEN.....	84
4.4.1 XBRANE BIOSCIENCE AB	84
4.4.2 GAVAGAI AB	87
4.4.3 BLUTEST AB	89
4.4.4 MEDFIELD DIAGNOSTICS AB	92
4.5 BELGIUM	94
4.5.1 FUGEIA	94
4.5.2 QAELUM.....	96
5. ANALYSES AND DISCUSSION.....	99
5.1 CASE STUDY ANALYSIS STRATEGY AND TECHNIQUES.....	99
5.2 THE ANALYSIS	102
5.2.1 ARCHETYPE 1.....	102
5.2.2 ARCHETYPE 2.....	105
5.2.3 ARCHETYPE 3.....	106
5.2.4 ARCHETYPE 4.....	106
5.3 THE OBSERVED PATTERN	108
5.3.1 NORWAY	108
5.3.2 SWITZERLAND	110
5.3.3 SWEDEN	112
5.3.4 BELGIUM	114
5.4 DISCUSSION.....	115
5.4.1 SHORTCOMINGS OF THE RESEARCH.....	115
5.4.2 CONCLUSION	117

List of Figures

Figure 1 The elements of ASO.....	11
Figure 2 Parameters on which the choice of qualitative study depends	20
Figure 3 The basic research design Source(Yin 2009).....	22
Figure 4 The entire research process.....	24
Figure 5 The key point of departures	25
Figure 6 The strategy for selection of theory	27
Figure 7 Innovation Index basis for data	28
Figure 8 Response Rate from Countries	29
Figure 9 Design vs Data Collection.....	30
Figure 10 Stages of New firm Creation	34
Figure 11 Stage Model for Academic spin off creation (NdonZao et. al)	35
Figure 12 Main Hindrances in Spin Off formation in Stage 1	36
Figure 13Resources That network can provide	38
Figure 14 Wilkens 1979 3 phase model.....	41
Figure 15 A bridge That connects two peak	44
Figure 16 Entry Into an Established Market	46
Figure 17 Positioning into an established market	47
Figure 18 Functioning of the broker	48
Figure 19 The brokers role in entering the market	49
Figure 20 The changed position of the network Players in the market	50
Figure 21 2*" Matrix describing The interface of Marketing and Entrepreneurship	54
Figure 22 Conditions for relationship Marketing.....	57
Figure 23 Strategies for using relationship marketing	57
Figure 24 Different areas of Application for 3d Radar.....	64
Figure 25 The implementation flow of the process.....	70
Figure 26 Services offered by Misa AS.....	72
Figure 27 Ecospeed AG business area	74
Figure 28 Bluebotics SA business area.....	78
Figure 29 ChEmaide Gmbh business area	81
Figure 30 Xbranes solutions.....	85
Figure 31 Business area of Gavagai AB	88
Figure 32 Bluetest AB products	90
Figure 33 Medfield Diagnostics AB business products	93
Figure 34 Case study analysis strategy	99
Figure 35 The design for analysis.....	100
Figure 36 The different methods of doing case study analysis	101

Figure 37 Two pivotal points for building the archetypes.....	102
Figure 38 Archetype 1.....	103
Figure 39 Archetype 2.....	105
Figure 40 Archetype 3.....	106
Figure 41 Archetype 4.....	107
Figure 42 Mapping of model followed by companies around a 2*2 matrix	112
Figure 43 Mapping of the model followed by companies in Sweden around the 2*2 dimension '	113
Figure 44 Mapping of the model followed by companies in 2*2 dimension in Belgium.....	115
Figure 45 Occurrence of different archetypes in Norway and Belgium.....	116
Figure 46 Occurrence of different archetypes in Switzerland and Sweden.....	116
Figure 47 The process of trust creation a holistic view	120

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List of Tables

Table 1 Reason for conducting Pilot Study	26
Table 2 Background of people	29
Table 3 Different perspectives of studying Entrepreneurship.....	37
Table 4 Entrepreneurial Patterns.....	40
Table 5 Aspects of Marketing from conventional and entrepreneurial view	53
Table 6 Critique for different part of the question 1	62
Table 7 Critique for different part of the question for part 2.....	63
Table 8 List of companies interviewed in Norway	109
Table 9 Mapping of model followed by companies in 2*2 dimension	110
Table 10 List of companies interviewed in Switzerland.....	111
Table 11 List of companies interviewed in Sweden.....	113
Table 12 List of companies interviewed in Belgium.....	114

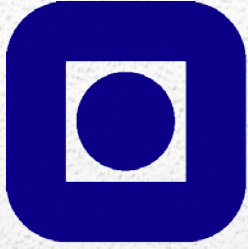
List of Abbreviations

RM (Relationship Marketing)

EM (Entrepreneurial Marketing)

ASO (Academic Spin Off)

NTBF (New Technology Based Firm)



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Chapter 1

Introduction

Abstract *This part introduces the main research topic the main research questions and the sub questions originating from the main question .This part also describes the main research scope of this master thesis basically which highlights the limitations*

1. Introduction

I never perfected an invention that I did not think about in terms of the service it might give others... I find out what the world needs, then I proceed to invent."

- Thomas Edison

So what is a university Spin off? *It is an organization formed to commercialize technologies originating from publicly funded research institutions, and may effectively contribute to economic prosperity and job creation.*(Walter et.al 2006).*Or as described by Pérez and Sánche (Manuela Pérez Pérez, 2003) (Oakley, 1995) An entrepreneurial spin off arises when an entrepreneur leaves an organization to start his or her own organization .To be a spin off , this must also include a transfer of some rights e.g., knowledge from the existing organization to the new firm .* Spin-offs can be categorized depending on what organization they are spun off from, and on where the entrepreneur has gained her/his background experience. According to Oakey (1995), the two major sources of new technology-based firms are higher education institutions (university spin-offs) and well established industrial firms (corporate spin-offs).Although the two kinds of entrepreneurial spin-offs have a lot in common, there are considerable differences. For example, while a private company often tries to keep research and technology within the firm, a university often encourages the transfer of the results to be used outside the university. There are four basic principle entities involved in the spin off formation process as described by (Autio, 1998.)Roberts and Malone (1996).



Figure 1 The elements of ASO

Now academic spin offs has been source of economic transformation taken up by the United States back in the late 70s , whereas in Europe the idea of commercializing university research into viable companies started off a bit late specially in late 90s .The cluster of highly developed economies , infrastructural competitiveness and presence of world class research institutions like CERN , European Space Agency, Max Plank Research Institute has created an atmosphere for technology commercialization. Although there is an cultural aspect to entrepreneurship which also has been highlighted in this research topic the main theme of the topic here is how did the spin offs got their first customer and how did it utilize their first customer to get the next series of customer .The study has been conducted through structured research interviews conducted with founders and co-founders of spin offs from Norway, (Rothwell, 1993) (Mian, 1997) this research topic emerged from the previous work done and the prevalent research gap .

1.1 Previous Work Done

Now university spin offs have been seen as different perspectives by different authors such as source of employment (Perez and Sanchez 2003, Roberts 1991) as mediators between basic and applied research that enable their customers to compete on the technological front (Autio 1997), as contributors to higher economic efficiency (Rothwell and Dodgson 1993), to the region's economic development (Mian 1997), or as change agents of the economic landscape moving traditional boundaries between basic and applied research (Abramson et. al 1997). Spin offs are confronted with serious obstacles like academic firms struggle to establish close links to customer and suppliers after their spin out (Perez and Sanchez 2003). What Pérez and Sánchez has investigated is that the amount of time spent in networking in the early stages of the firm formation is particularly high and during the later stages entrepreneurs orientation is more towards customers. What they have worked on is mostly how spin off companies go through a shift of polarity from being focused in R&D in the earlier stages of the formation of the company to the later stages to more marketing and service oriented, they have also focused on briefly how companies utilize to improvise their products especially horizontal products, products which are mostly fixed to a specific need, in this regard Von Hippels work can be quoted (*Von Hippels 1988*) *customers can be an early source of technological knowhow for hi tech start ups*. Their work have also focused on spin offs uses of their network to make customers, suppliers and find new member for their team, but the major gap being disoriented focus of their research and not concentrating exactly how the networks are utilized, moreover how they utilize their customers to improve their products. It has

been hypothesized by Walter et. al that *Network Capability is associated with the spin off's performance* .They have concentrated on the overall firms performance but none on exactly how they would utilize their networks to get the first customer ,we know from the works of (Hoang and Antoncic 2003,Johannison and Monnsted 1998, Nicolau and Briley 2003, Shan and Stuart 2002) close relations provide entrepreneurs and their organizations with avenues (Yin, 2009) (Ha Hoang, 2002.) for negotiations and persuasion enabling them to gather many resources (market information , ideas, problem solving and social support ,venture funding and financial resources) held by other actors .Network capability of a new venture though of utmost importance and being studied from a holistic perspective. What this research mainly pivoted around customer orientation of the spin off organization and how the networking capability of the organization affects in getting hold of the very first customer and how it utilizes the first customer to improve its product .Though the first part of the study has networking orientation the second part being more marketing oriented . In the next chapter thus we discuss how the problem was formulated and the main research statement .

1.2 The Research Statement

After analysis the existing gaps in the current literatures which are utilization of the social network by the entrepreneur to find it's first customer and also utilization of the first customer the following research statement was discovered

RQ) How did the academic spin off acquire and utilize their first customer?

Here **acquire** means how the spin off approaches its first customer, we have mainly concentrated on the mode of approach like whether they approached through a previously established network or through direct contact with the customer through scientific conferences or seminars or through the financiers but is not restricted to these options only, if any company has applied any other method that will also be considered in this research study. The other part of the study being how they **utilized** their customer utilize has two meaning improving the product through continuous feedback from the customer and also using the customer as in the **Trust build** during the process to find the second customer through their reference.



Figure 2 Trust and Relationship in Customer and Organization www.brainstuck.com

1.3 Research Goals

As defined in the above section the main research statement has been defined as

RQ) How did the academic spin off acquire and utilize their first customer?

But this question has been further sub divided into the following questions based on the two keywords **Acquire** and **Utilize**. Under The keyword **Acquire** the following sub research question has been formulated

RQ 1) How did the academic spin off find the first customer?

Find as in the methods used by the organization to acquire the first customer

Under The keyword **Utilize** the following sub research question has been formulated

RQ 2) How did the academic spin off utilize their first customer in improving their product ?

Here utilization is basically in the sense of improving the product to be more suitable for the market through continuous feedbacks from their first customer .

RQ3) How did the academic spin utilize their first customer to get their next series of customer?

This question refers to the relationship that was build up during the interaction process with the first customer it really concerns the element of trust shown by the first customer to refer them to the second customer and help the company to gather critical mass

1.4 Research Scope

The scope of this research is limited only to the customer focus of an academic spin off that is how does the company orient itself to find its first customer and utilize its first customer . Another important point of any research concerned

with entrepreneurship is cultural influence since most of the rules that govern a dyadic or triadic entrepreneurial relationship are embedded in the social and trust based relationships thus culture plays a great influence on these relationships but since the data collection was mainly performed in the European continent the finding can be made applicable to the European context.

1.5 Organization of the Thesis

The research has been conducted in a combined approach of inductive and deductive process and has been divided into the following parts they being

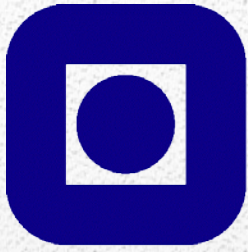
Chapter 1: *Introduction* This part introduces the main research topic the main research questions and the sub questions originating from the main question .This part also describes the main research scope of this master thesis basically which highlight the limitations

Chapter 2: *Research Methodology* The research methodology part describes the specific methodology applied which is a combination of deductive and inductive method to study the research question and also the method used to select data.

Chapter 3: *Theoretical Background* This being a relatively exploratory study in nature the theory being used to support the research questions spans from social network theory to entrepreneurial marketing and relationship marketing theory

Chapter 4: *Empirical Research* In this section we perform the empirical research required to arrive at a conclusion .We have used research interview methods to analyze the research questions formed.

Chapter 5: *Analysis and discussion* In the analysis and discussion part an explanation building method has been used to relate the study back to the research questions and also the theory used to support the research



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Chapter 2

Research Methodology

Abstract *The research methodology part describes the specific methodology applied to study the research questions formed in the previous chapter .Here we describe the deductive based research principle applied and the method of selecting the theory for forming the theoretical backbone of the study .The section ends with the selection procedures used for data collection process*

2 Research Methodology

In regards to the research questions introduced in chapter 1, we will discuss the research strategy chosen by us and the reason for choosing the research strategy. Then we will discuss the method and the reason for selecting the sample data for our study .At last this section ends with the validity tests for the chosen methodology and the limitations posed by it

2.1 Research Strategy

Now research can be categorized in two different ways broadly in social science ,one is quantitative research and the other one is qualitative research .Now quantitative research is usually pursued when there is a cause and effect relation (correlation) and from that a causal hypothesis can be formed and later validate that hypothesis by using various inferential statistical methods . The other school of social science research is qualitative research is general used when a the context is important in understanding a phenomenon and the complexity in it (Yin 2009).There are also possibilities of triangulating the two different methods (Research Method Triangulation Yin 2009) to address a particular issue. There are also possibilities of triangulating the two different methods (Research Method Triangulation Yin 2009) to address a particular issue .Further qualitative research methods have been divided into the following experiments ,surveys and case studies ,archival analysis and history (yin 2009).Now when and where these sub methods under qualitative methods are to be used are based on three parameters as described below in the diagram

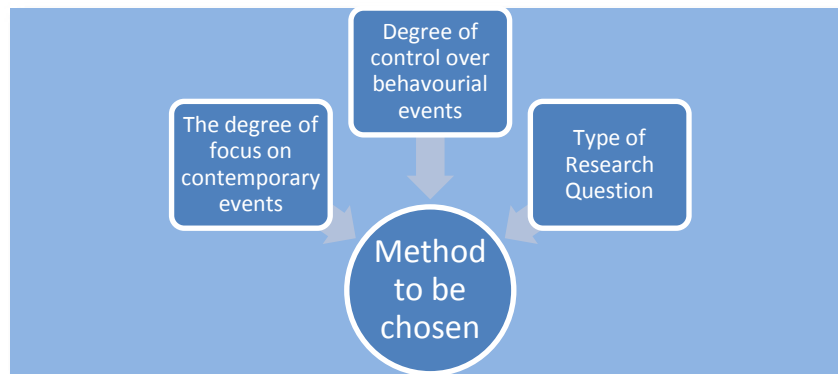


Figure 3 Parameters on which the choice of qualitative study depends

The nature of the study is exploratory in nature, now exploratory natured studies are those which has not been researched much before, it is mostly used in the beginning part of the research (Webb 1992, Ghauri et.al 1995). Now this type of research method is usually characterized by flexibility, flexibility arises from a desire to learn from the experience of the investigation and from the need to avoid being blinkered by any preconceived notions (Webb 1992). Now the reason an exploratory form of research method was chosen because the topic for research is an uncharted one, though closely related studies in similar fields have been done before (See Previous studies section for reference). Now type of research questions, that is the first condition (Hedrick, Bickman and Rog 1993) is basically of the following type who, what, where, how and why. Now for some types of "What" questions relates to exploratory nature of study (Yin 2009), like he explains a particular "What" question like *what can be learned from the study of startup business?* the main nature of the study being to develop an understanding of the phenomenon and the develop a hypothesis accordingly. Now if we go back to our main research question which is ***How did the academic spin off acquire and utilize their first customer?*** this research question tries to

understand the phenomenon in particular context ,i.e how does particularly spin off companies acquire their first customers and utilize their first customers ,as possible successful business model to successfully launch their products in the markets . Now to investigate this research question a multiple case study based research was carried out .Now the reason why case study was chosen as a research method because it investigates a contemporary phenomenon in depth and within its real life context especially when the boundaries between the phenomenon and context are not clearly evident (Yin 2009),this actually is the second condition for selection of a particular methodology .

Now though case study is a common research method in qualitative analysis it has some (Hippel, 1988)drawbacks which are listed below

2.2 Drawbacks of selected strategy

The first being many think that case study research methodology being a sloppy method as no rigorous procedure is followed and has included bias views at times .But it must also be remembered that bias in methods are not common to case studies only it can be found in experiments (Rosenthal 1996) and also in surveys(Sudman and Bradburn 1982) and historical research(Gotschalk 1968).In latter stages we point out the drawback of biasness though which founders and co founders can have about their product or company

The second drawback being case studies produce a little basis for scientific generalization, but if a single experiment is considered same can be said about it too ,so what may be the alternative multiple case study ?,there is an alternative way at looking at case study it is not you are particularizing a statistic ,i.e frequency of occurrence but more generalizing a theory (Yin 2009).

2.3 Research Design

Now after the research methodology was defined in the previous section ,this section defines the research design ,the research design consists of the following sections one after the other described with a flow chart .

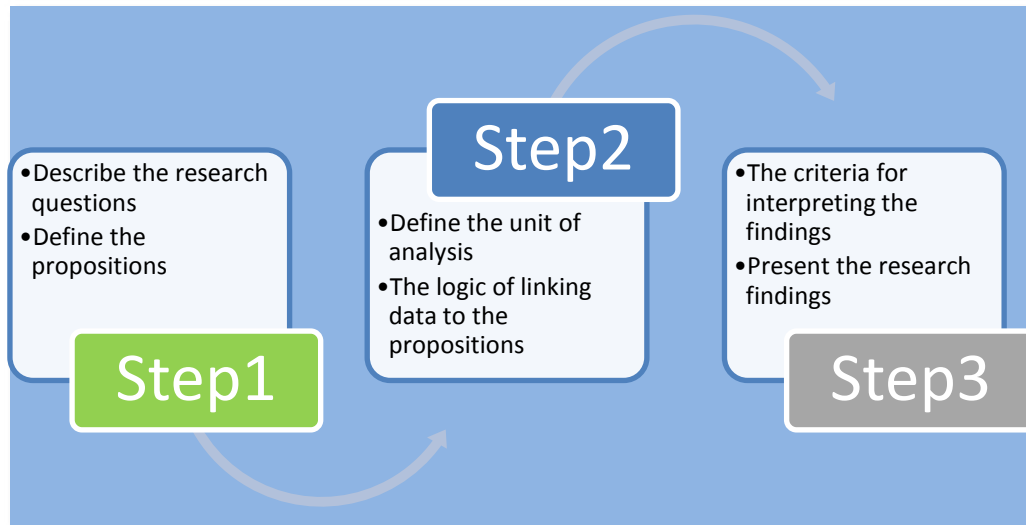


Figure 4 The basic research design Source(Yin 2009)

Now the basis for selecting the research questions ,and the method to be followed based on the type of research questions chosen has been described in the section before ,what this section does is describes the other steps followed in research design strategy adopted. So we will be describing the design from the second step

Second Step : The second step actually defines the direction of the study ,that what it tries to establish .Well in the above case it tries to find out the impact an organization in this case an academic spin off can have in its product launch depending on its entrepreneurial orientation

Third Step : This step is about defining the unit of analysis .Unit of analysis is defining what the case actually deals with or the central piece of investigation .In our case the Unit of analysis is the ‘The method of acquisition and utilization of the first customers by academic spin offs’

Fourth Step :This step consists of analyzing the collected data. Since the empirical study is based on multiple case study and analysis is based on explanation building ,and pattern matching method (Yin 2009) has been used to interpret the findings

Fifth step :The fifth step is about criteria to interpret the findings .Here we have used the theoretical foundations ,literature study done that were used to form the research questions and the research direction to interpret the findings .

2.4 Research Process

The section before covers the research design particularly used to conduct this research and this section now describes the research process followed by the author to conduct the research It has been divided into the following phases, which is described in the diagram below

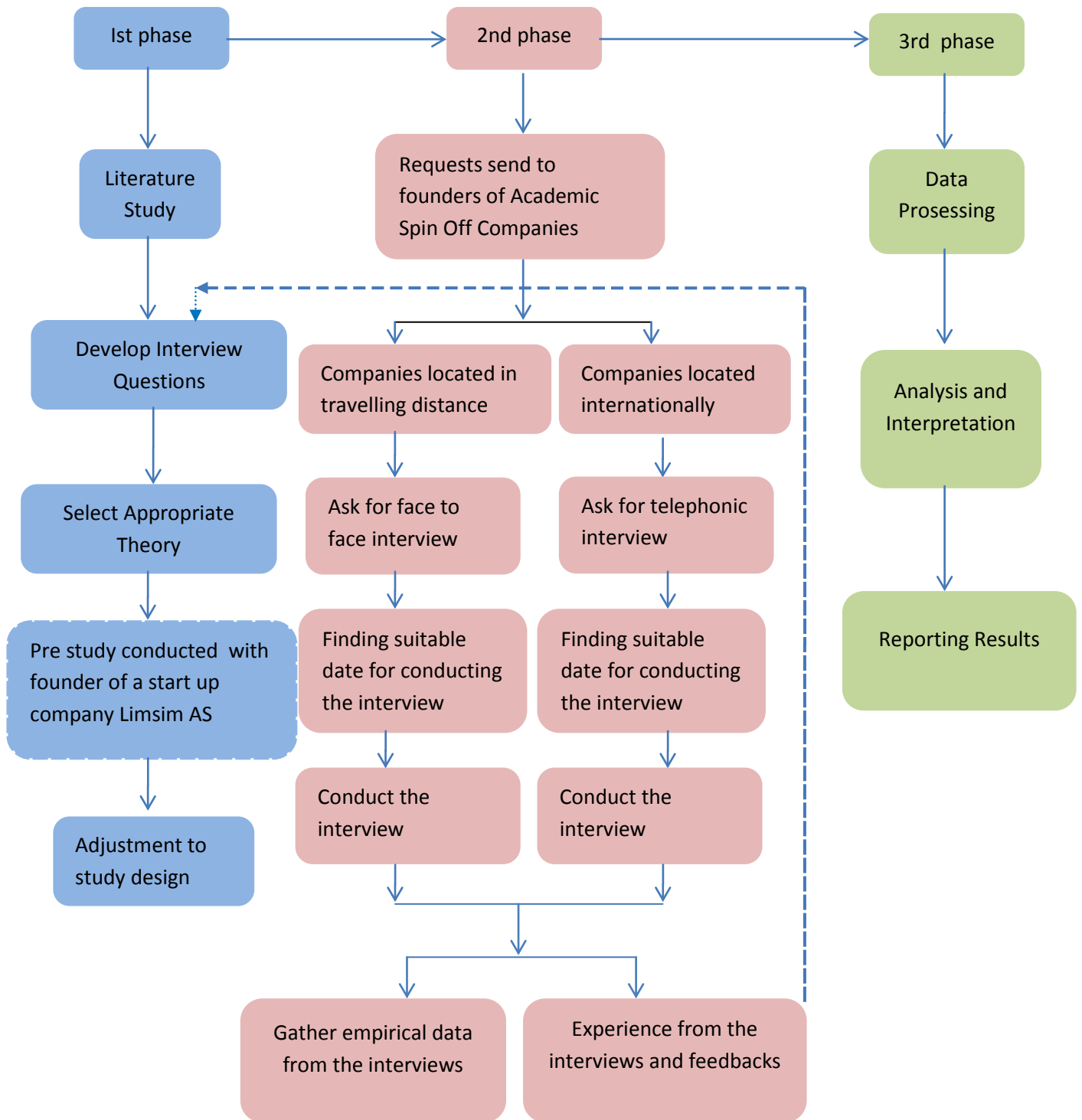


Figure 5 The entire research process

As can be seen from the figure above that at first the author did a lot of literature study sightings of which has been given in section 1 .Now the next step was to develop the research questions. While developing the research questions the following two keywords were kept in mind acquire and utilize , thus the following research strategy was employed to develop the research questions and investigate into the research topic

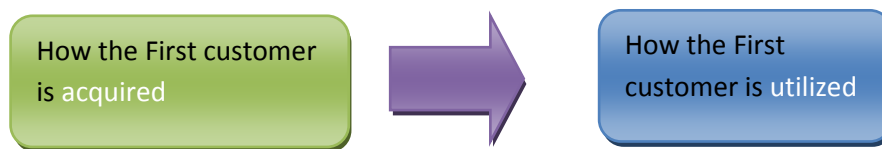


Figure 6 The key point of departures

The research questions have been appended in the appendix section for reference .Now after the research questions were prepared it was sent for testing for a prestudy or pilot study with a co founder of a start up named Lim Sim As the feedback for the pilot study conducted is given in details in the Empirical section of the master thesis , but the reason for conducting a pilot study is given in details below

2.4.1 Pilot study

The term pilot study is used in two different ways in social science research the first one being just feasibility study , small scale versions or trial runs done in preparation of major large scale study (Polit et. al 2001), on the other hand a pilot study can also be pre testing or trying out a research instrument (Baker 1994). In this case we can refer to the first definition as the reason for use of pilot study .Now our reason for conducting pilot study has been summarized below and has been tallied with the summarized points as described by (Teijlingen and Hundley) in Social Research Update 2001

Reasons for conducting Pilot study	Used by the author or not
Developing and testing adequacy of research instruments	Yes
Assessing the feasibility of a (fullscale) study/survey	Yes
Designing a research protocol	Yes
Assessing whether the research protocol is realistic and workable	Yes
Establishing whether the sampling frame and technique are effective	Yes
Assessing the likely success of proposed recruitment approaches	Yes
Identifying logistical problems which might occur using proposed methods	Yes
Estimating variability in outcomes to help determining sample size	No
Collecting preliminary data	No
Determining what resources (finance, staff) are needed for a planned study	No
Assessing the proposed data analysis techniques to uncover potential problems	No
Developing a research question and research plan	No
Training a researcher in as many elements of the research process as possible	No
Convincing funding bodies that the research team is competent and knowledgeable	No
Convincing funding bodies that the main study is feasible and worth funding	No
Convincing other stakeholders that the main study is worth supporting	No

Table 1 Reason for conducting Pilot Study

Now surprisingly pilot studies can increase the internal validity of the questionnaire , because a pilot study the questionnaire is administered the same way as it will be administered the way in the main empirical study detailed proof of which can be found in the Empirical chapter section .It asks the subject for feedback identifying ambiguities and difficult questions , exactly the way the two biased questions were made very open ended .By pilot studies the replies can be established according to the required responses anticipated for .

2.5 Selection of Theory

Now the methodology or as should be said sub methodology as it is part of the greater research methodology used to select the appropriate theory is described below as follows .As previously stated before the research questions for this research has been divided into two parts .The first part being the use of social networks by Entrepreneurs for networking and the second part being the use of the first customer to improvise the product and find the next series of customer .So while finding the appropriate theory these two points were kept in mind

Network Influence in Entrepreneurship To find this aspect in our study we conducted literature search in the following closely related areas.

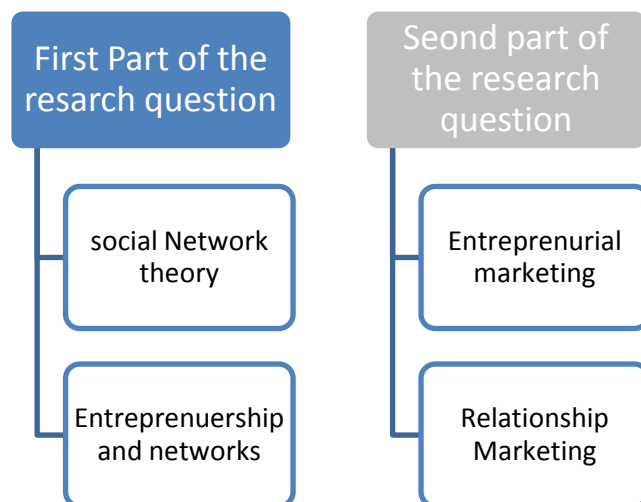


Figure 7 The strategy for selection of theory

Marketing orientation in Entrepreneurship

In this part of the research question the following closely related areas were chosen as described above from entrepreneurial marketing to general literature about Relationship Marketing .Though the nature of literature available in RM was general in nature we tried mapping it with entrepreneurial orientation

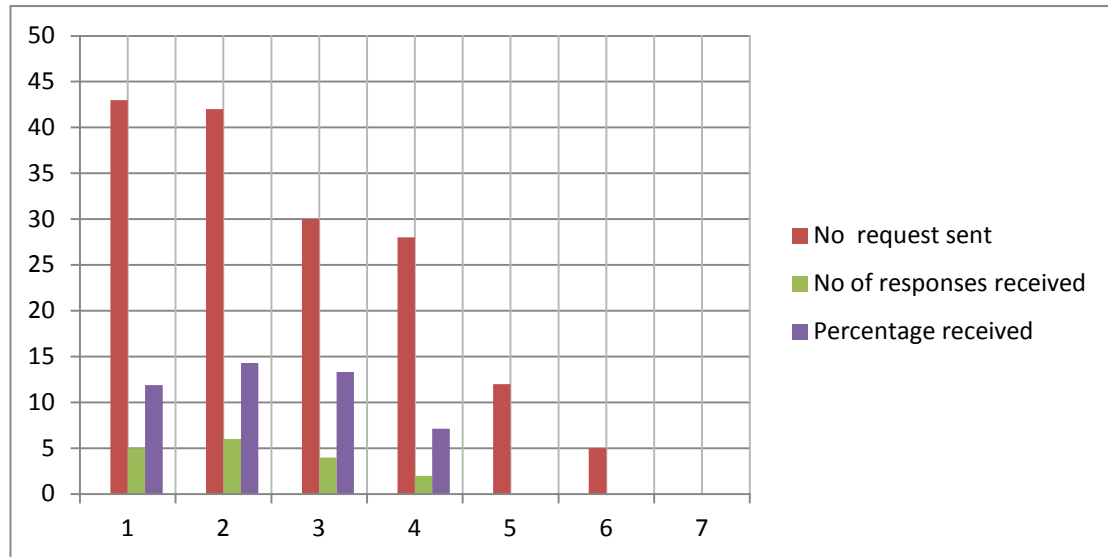
2.6 Data Selection and collection

The basis of data selection was academic spin off companies and they were grouped according to their country of origin .Thus the countries which were covered are Norway , Sweden , Switzerland Germany ,Singapore Belgium .The reason these countries were selected is because they rank very high in the innovation index , also the reason Singapore was selected because to have another cultural perspective . The innovation index which was used as scale to select the companies was prepared by Insead business school and is given below



Figure 8 Innovation Index basis for data

Out of the number of companies contacted and the number of them responded are given below



Where 1=Norway, 2=Switzerland, 3=Sweden, 4=Belgium, 5=Germany, 6=Singapore

Figure 9 Response Rate from Countries

Now the people who were interviewed all having PhD in their own field of research and having considerable experience between 10 to 20 years which is given in the table below

Country	No of person interviewed	Position in the company	Average Experience in years	Average level of education
Norway	5	Co founder, CEO,	10-20	PhD
Switzerland	6	MD. CEO, Co founder	5-15	PhD also Some with MBA after finishing PhD
Sweden	4	CEO, Co founder	5-10	MD, PhD
Belgium	2	CEO	10	MD, PhD

Table 2 Background of people

Now Yin describes how research design can be integrated with the data collection methodology ,which he describes in a 2*2 matrix as described below

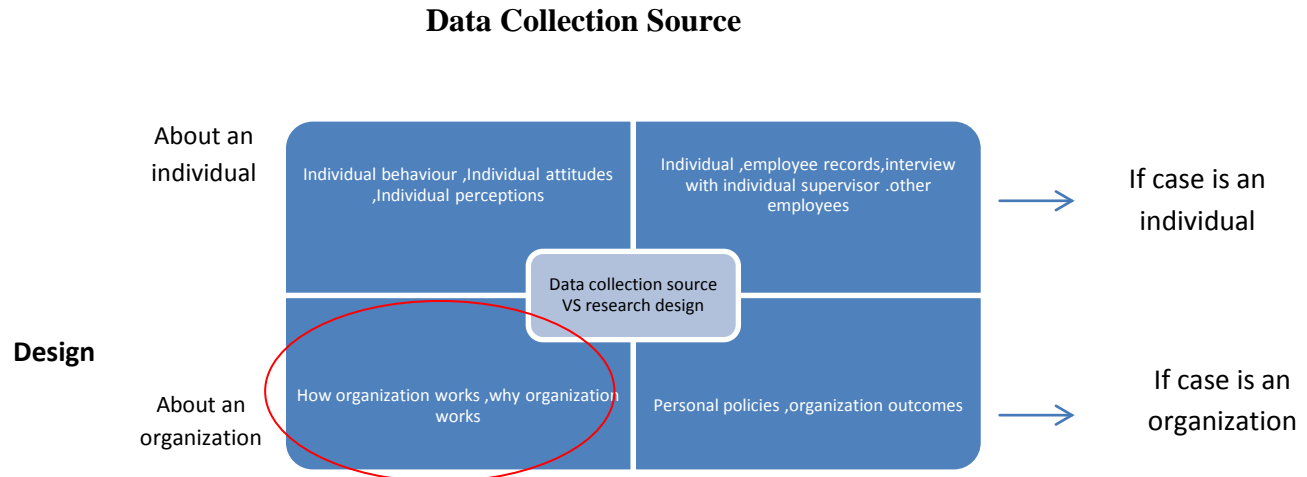


Figure 10 Design vs Data Collection

4.4 Validity of Chosen methodology

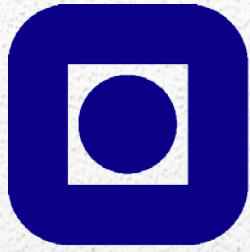
As every research design in social science research methods consists a sequence of statements it is necessary to subject the research design to some logical test .The four main logical test are as follows construct validity ,internal validity ,external validity and reliability they are summarized in numerous textbooks (Liddler and Judd 1986)

Construct validity Now construct validity is described as the shortcomings in operational procedures .For example Yin describes a case where an author tries to analyze why certain neighborhoods have changed themselves, but without actually signifying what change actually signifies if the author begins researching ,the it will weaken the internal validity of the chosen concept .If we come back to our research question we have set out find out how academic spin offs acquire and utilize their first customer our main research objective here is to find out the best suitable model to launch a academic spin off company . Another way to improve construct validity as mentioned in Yin 2009 is to use multiple source of evidence , here we have used research interviews and case studies together which has actually increased the construct validity to a large extent

Internal Validity This probably the test which has been given significant importance .Numerous threats to validity has been found mostly related to spurious effects (Yin 2009).Now the way Yin explains is that an author identifies that X is the cause of Y and forms a causal hypothesis ,but what the actual case might be is that there might be another factor Z that is causing why X , that has not been considered .The steps that has been taken to increase internal validity is by doing multiple interviews from different countries .

External Validity Now by external validity it means the study finding can be generalized to another similar study. Like the data collected from all over Europe if applied to any other country from any other continent will have the same results , but in here we cannot be very confident that it will have the same results. As an attempt was made to bridge this gap by trying to interview companies which have originated from Singapore but we failed to get any reponses from them likewise for Germany .

Reliability Now by reliability it is meant if the same procedures are followed over again the same result will be obtained .As Yin suggested to maintain a chain of evidence and that has been used in the research methods ,and most of the steps have been operationalized to increase the reliability of the study .



NTNU
Norwegian University of
Science and Technology

Chapter 3

Theory

Abstract *In this section what we discuss is the theory chosen to form the backbone of research .The main theoretical background used here stems from social network theory in entrepreneurial research to entrepreneurial marketing and relationship marketing*

3. Theoretical Background

The theoretical concepts used in this research have been described below and along with the reason for choosing them,.

3.1 Social Network Theory

A social Network is a structure made up of different actors. J Barnes (1954) in his article “*Class and Committees in a Norwegian Island Parish*” Human Relations introduced the concept of social network analysis. (Stephen et. al 2004) states that (Arent Greve¹, 2003)

The fundamental assumption underlying social network theory is the idea that seemingly autonomous individuals and organizations are in fact embedded in social relations and interactions”.

Thus in general a social network consists of actors (persons, organizations) and in general some social relations among them .Social networks is represented in form of graphs , derived from graph theory a branch of mathematics , which is used to form the sociograms.But we are not going to look into social network theory not from sociograms point of view but more on the Characters of a social network utilized by an entrepreneur to successfully launch his or her organization .

3.1.1 Social Network Theory in Entrepreneurship

Application of social network theory in entrepreneurship is nothing new. (Greve and Salaff 2003) studied the influence of social networks on entrepreneurship through three phase of establishing a firm described in the diagram below

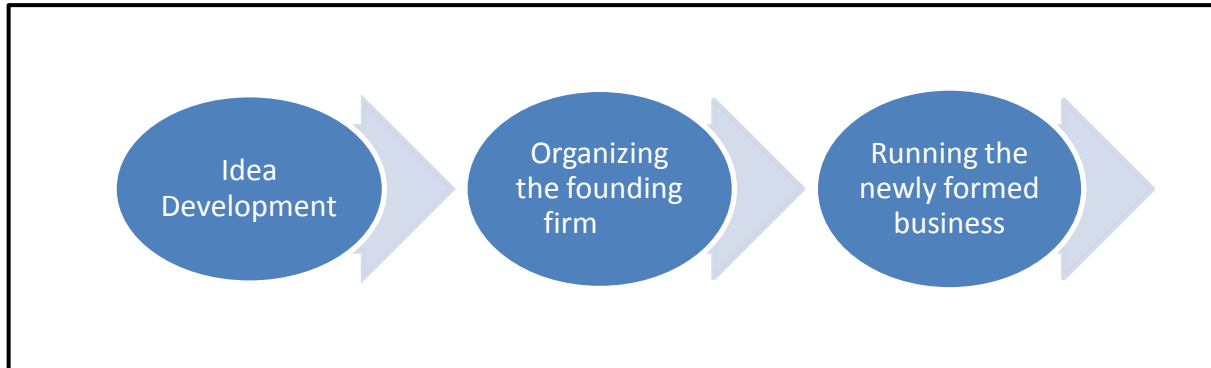


Figure 11 Stages of New firm Creation

In this regard another model can be referred to a stage based model describing the formation of academic spin off creation , also can be referred to as stages of innovation diffusion as this research is overlap between entrepreneurship and academic spin off formation both the model are used to compare entrepreneurship outside the academic walls . (Ndonzaou et. al 2002)proposed four stage based model for academic spin off formation

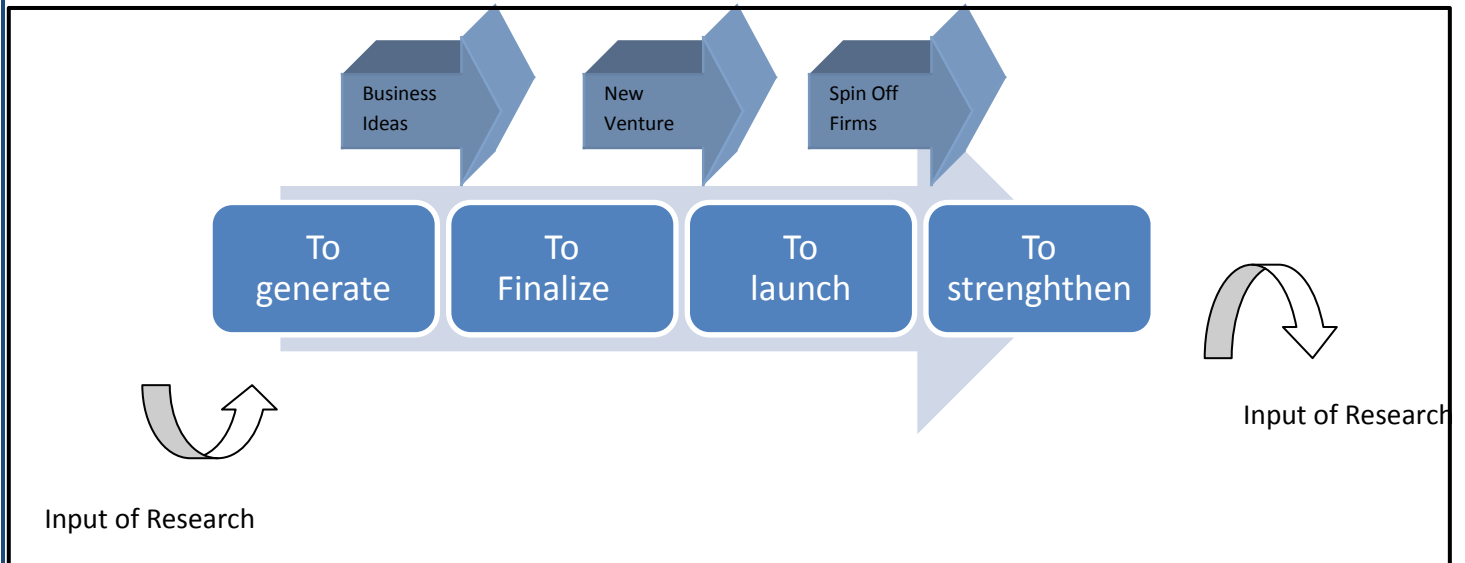


Figure 12 Stage Model for Academic spin off creation (NdonZao et. al)

In **Stage 1 Generating a business Idea**, produce business ideas and suggestion to the scientific community for commercial exploitation. The author sites that in this stage the two aspects the scientific concept and the economic concept meet. The scientific concept considers which considers science as an end in itself, and the 'economic' conception, which considers it more as a means to achieve other goals especially making money (McMillan et al., 2000) One of the main problems, therefore, is how to reconcile these two opposite conceptions (Doutriaux, 1991; Dasgupta and David, 1994). In this stage the major problem that arrives is the academic (McMillan et al., 2000)culture. Most of the universities believe in promoting professorship rather than entrepreneurship and are indifferent to produce end result of research as a commercial outcome. The biggest hindrance in producing a commercial outcome out off academic research in this stage are

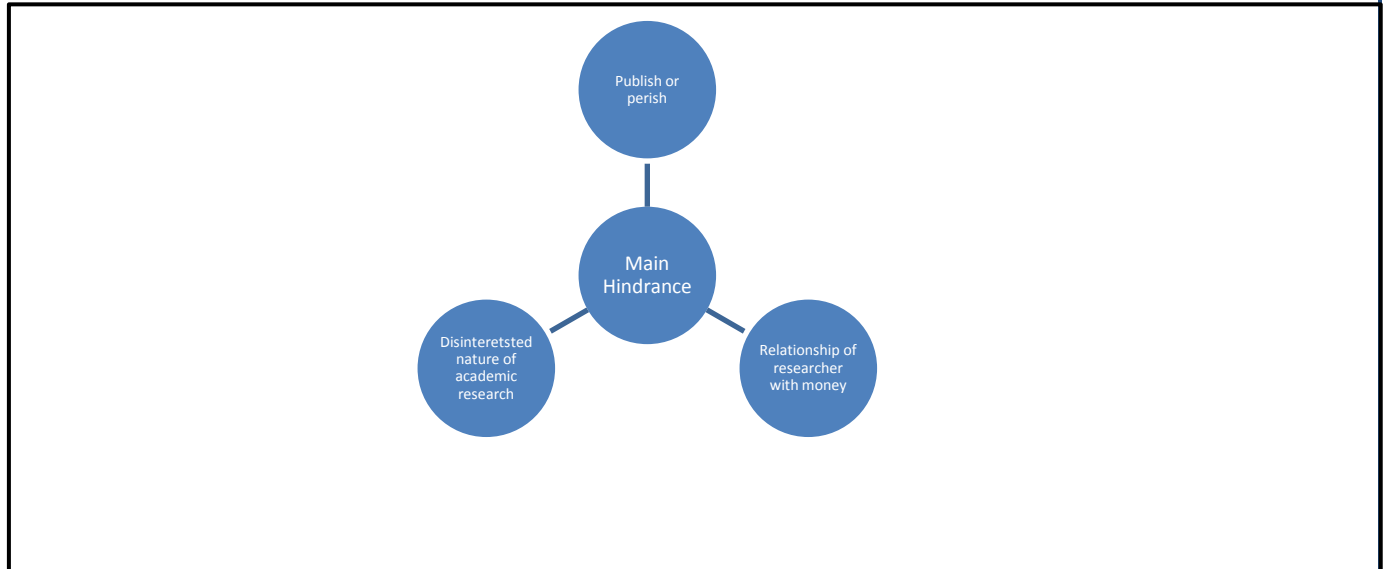


Figure 13 Main Hindrances in Spin Off formation in Stage 1

In stage 2 finalizing new venture projects the ideas generated in the first stage is ill structured and has many grey areas the main purpose of this stage is to transform the projects potential into a commercial outcome and also protection of the business idea .

In stage 3 which is launching spin off firms in this stage after refining the idea the product or the service is ready to be launched in the form of an academic spin off .It is in this stage (Ndonzaou et. al 2002) states that

“The issues that have to be dealt with will progressively move away from specific academic contingencies towards business considerations.”

It is in this stage the spin off firms start looking for resources both tangible resources like materials and location (Mian,1997) and intangible resources like the management body of the firm as the greatly differs from that of the university laboratory. Now here comes the application of social network theory in accumulating resources for newly start up ASO .As stated in (Ndonzaou et. al 2002)

“Moreover, the development of a new business cannot succeed without management expertise (know-how) and good social networks (know-who) (Mustar, 1997).”

So to get resources the founders and the co founders of the ASO has to use their social networks

In stage 4 strengthening the creation of economic value this stage is mostly related to the creation of jobs , diffusion of innovation and is not so significant from the point of social network perspective

Greve (1994) in his work *“Networks and Entrepreneurship –An analysis of social relations , occupational background , and use of contacts during establishment process”* say that entrepreneurship has been studied from the following perspectives

Perspective for studying Entrepreneurship	Authors
Personality Theory	McClelland, 1961; Miron and McClelland, 1979
Economic Theory	Kent, 1982
Cultural Explanations	Geertz, 1963; Gustaffson, 1985
Ethnic background	Aldrich <i>et al.</i> , 1983
Network perspective	Aldrich, 1988; Aldrich and Zimmer, 1986; Dubini and Aldrich, 1991

Table 3 Different perspectives of studying Entrepreneurship

But by studying (Nicole Woolsey Biggart, 2008)g entrepreneurship through an analysis of social networks offers a fruitful perspective on entrepreneurship

.Economic behavior is embedded in a social structure (Granovetter 1985) and studying how entrepreneurs participates in networks accentuates the importance of social structure . (Greve 1994) entrepreneurs either enter an existing niche or they establish new organizational forms , the latter being the most uncommon one . Most entrepreneurs enter an existing niche reason being they have the knowledge about it and also having the previously established network in the particular niche. Thus for establishing a particular business firm means entrepreneurs have to mobilize a set of resources to be able to accomplish the establishment process an run the firm .To establish a firm , entrepreneurs need capital labor and distribution channel .Most entrepreneurs start with the business idea and some capital , they have a vague cognizance about how to organize a firm or manage them ,thus contacts with person who can provide them with information are important in business process .Now to acquire these complementary assets the entrepreneur must know where and when they are available , and they are not always readily available they are available through other people .Klyver et. al 2008 states that most important resources that a social network can provide are

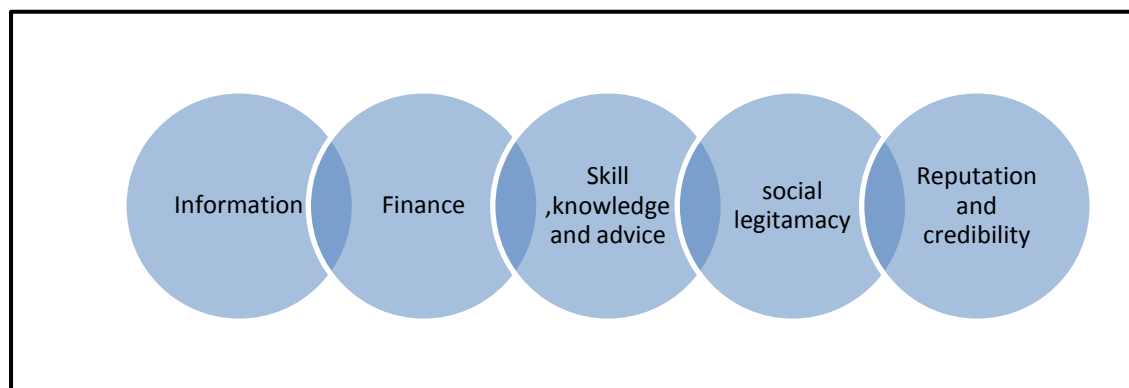


Figure 14 Resources That network can provide

On the other hand (Preisendörfer, 1998) coined the hypothesis called *Compensation hypothesis* which stated that entrepreneurs with a less favorable human capital profile and restricted financial resources struggle harder to mobilize their social contacts and receive more support from their social contacts .The compensation mechanism is well explained by Karegeorgis (1994 p 685)

*“Highly developed social networkscan compensate shortfalls of human capital
“*

Klyver et .al 2007 takes on **social networking of entrepreneurship from cultural perspective** by studying 20 different types of culture and the social networking

.Now as this study is conducted with ASO companies from all round the globe from developed to developing countries the cultural aspect to entrepreneurship has significant effect .In their study they have cited that people get involved in entrepreneurship when they have a family member (Mathews and Moser 1995,Sanders and Nee 1996,Davidson and Honing 2003,Menzies et. al 2006).Although (Dodd and Patra 2002) agreed by their study on Greek Entrepreneurs that cultural difference exist on entrepreneurial networks .Again Dodd et.al 2002 states that

while the general picture of a degree of broad international homogeneity in networking, offset by specific areas of national idiosyncrasy, continues to hold true, the network characteristics and activities of Scottish entrepreneurs display some interesting differences”.

Thus from this there has not been conclusive findings from previous research stating that cultural differences tend to exist in social networks of entrepreneurs .Thus Klyver et. al 2007 hypothesizes that

Belonging to a social network that includes one or more entrepreneurs increases an individual's likelihood of becoming an entrepreneur

The impact of entrepreneurial networking on the likelihood of entrepreneurship depends on culture

Later he validates the hypothesis he divides the entrepreneurial stages into three stages discovery stage , start up stage , young business stage and five different types of networking pattern in different countries and different countries belong to different pattern ,this being primarily due cultural differences .The five patterns are that the effect of personally knowing someone who started a business in the last 2 years differs among entrepreneurs in different countries. For example in Germany and Greece knowing someone who started a business in the last 2 years is the most important in the startup stage, next in the discovery stage and least in the young business stage .The following table describes the patterns and the countries following them .

Networking Pattern	Ranking of networking importance	Countries
A	<i>Discovery stage; start-up stage; young; business stage</i>	<i>Netherlands, Spain, Hungary, Poland, Portugal</i>
B	<i>Discovery stage; young business stage; start-up stage</i>	<i>Italy, United Kingdom, Denmark, Norway, Ireland, Iceland, Finland, (Belgium)</i>
C	<i>Start-up stage; discovery stage; young business stage</i>	<i>Greece, Germany</i>
D	<i>Start-up stage; young business stage; discovery stage</i>	<i>France, Croatia, Slovenia, (Belgium)</i>
E	<i>Young business stage; discovery stage; start-up stage</i>	<i>Sweden</i>

Table 4 Entrepreneurial Patterns (Moserb, 1995)

Now entrepreneurs spend a lot of time developing their social ties to get resources and information to launch a successful business. Now the time they spend depends on which particular phase they are in the entrepreneurship stage. In this regard Wilken's three phase model 1979 can be cited

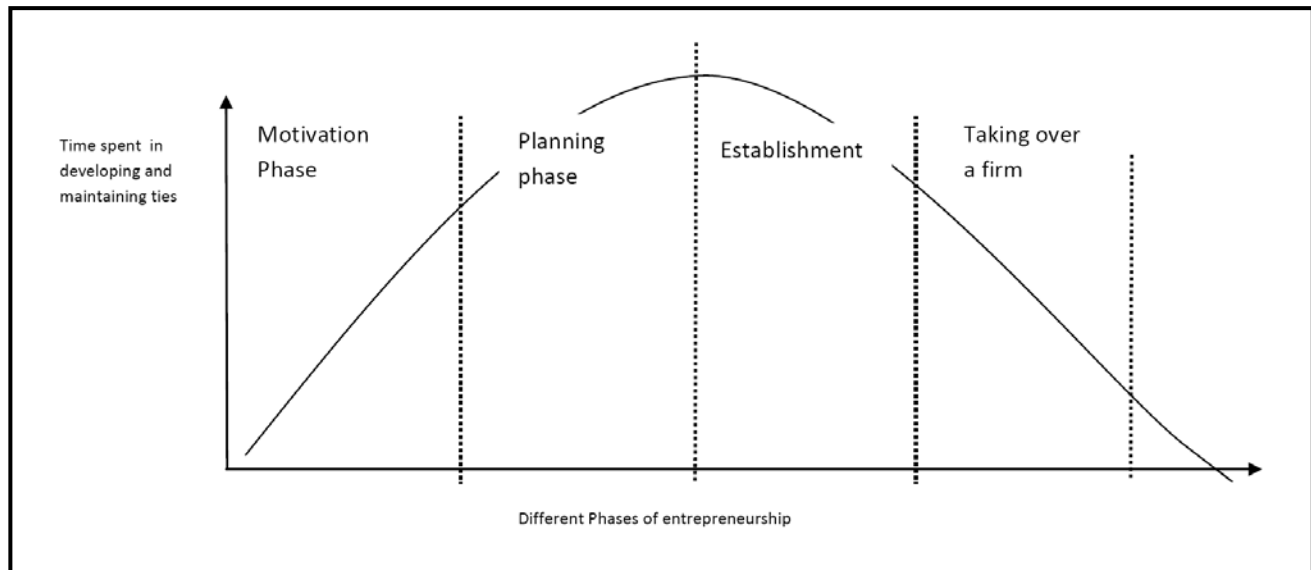


Figure 15 Wilkens 1979 3 phase model

Now all the three phases the last phase being subdivided into 2 sub phases can be seen (Carter, 1996) and is related to the time spent in networking with people, so in

Phase 1: Motivation stage : In this stage entrepreneurs contact others primarily to test business ideas and get support (Kam and Nurrick 1993). As they spend most of their time with the closest contact so they do not commit themselves too early, so they do not waste time in establishing new contacts or maintaining them. Thus can be seen from the diagram the time spent in developing or maintaining ties is the lowest in this stage.

Phase 2 : Planning stage : Procuring the necessary knowledge and resources to set up a business implies making connections with new actors (McCarthy, 1990) and with new actors (Carter et. al 1996). They want to reach out to a wider range of contacts, if some

of their contacts do not prove out to be useful .Thus the time spent here in this stage is much more than the previous stage .

Phase 3 Now the third phase is divided into two sub phases they are as follows

Phase 3a : Establishment Phase : Once the social networks are in place the entrepreneurs will focus on the daily activities .Now since they have established a set contacts they will use the most useful set of contacts to get information quickly (Mc Carthy et.al 1990).The entrepreneurs use the same amount of time maintaining the contacts as developing them

Phase 3b : Taking over a firm Phase : Networks often follow a firm (Gabbay and Leenders 1999).Thos that take over a firm face less uncertainty since they will take over the business relations of the previous owner , so they do not try for new relations .Thus entrepreneurs spend least time of all the phases

3.2Characters of the social network utilized by a successful entrepreneur :

Now focusing on the social context of the entrepreneurship networks can be divided into different types depending on their size , activity , density , distance , centrality and multiplexity (Aldrich 1988,Aldrich and Zimmer 1986,Scott 1991) .As economic actors are tied in social relations , persons with whom an entrepreneur may connect may determine the success of his or business outcome .

Size of the network and time used for networking: The position people have in networks may put them in a more or less in an advantageous and secure position about acquiring the complementary assets they lack . The size of the network actually signifies how many different people the entrepreneur is talking with ,if the size of the network is high it means there is a possibility of receiving

diversified information ,but if we assume that getting goal directed information is difficult (Mans and March 1978), having big network increases the probability of getting better information. connected to size ,but also independent of size is the time people spend on talking to others in the network .With a large network the time spent with each person may be smaller , with a smaller network the time spent with each person may be more .With a large network the probability of finding required information is high (Brown and duguid 1992).

Density of the network: All social networks are characterized by clustering .In a larger social network that encompasses larger social space , there may be several clusters .Now entrepreneurs may belong to one or several cluster .Now Greve 1995 studies the cluster based on the focal person in the cluster and he calls these type of clusters as **ego centered networks** .Now a person's position in a cluster is described in terms of his or her position relative to central position or peripheral position .Now Network density is described by the following formula

NETWORK DENSITY = $L / (N * (N - 1) / 2)$ Where L=total number of lines ,or the number of actual contacts among people $(N * (N - 1) / 2)$ =the number of possible contacts in a relation Actually $N * (N - 1) / 2 = \sum$ All natural numbers up to $1 + 2 + 3 + \dots + N - 1$ and used in communication problems . Thus higher the network density higher is the degree of tightness .In a **very tight network** where everybody knows everybody information might end up being redundant .But redundancy may depend on the background of the people within the network , like what occupation they are involved with the experiences they have etc .On the other hand a network with low density that contacts (alter) and the focal person (ego) do not know each other well .One advantage of a low density network is the

lack of redundant information .Now redundancy is a function of the homogeneity of the network .Now one of the biggest advantages of **low density network** that two egos belonging t two different clusters may not know each other but can be connected to a very peripheral cluster being common in those two clusters ,such connection is called a bridge (Mizruchi 1982). Below is the diagram of a bridge

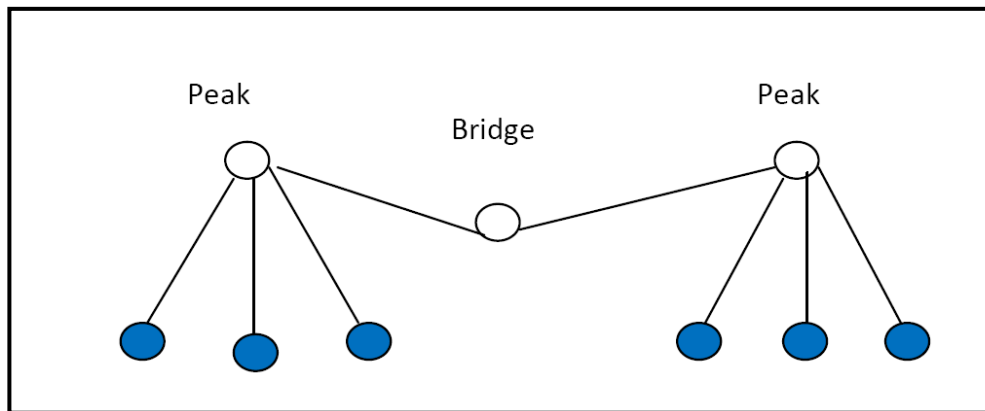


Figure 16 A bridge That connects two peak

Now using such networks an entrepreneur might discuss their business idea with other people in other network , but information sharing is tricky as their idea may get copied .Bu the possibility of imitation depends on the complexity of the idea , the less complex the idea the more probability of it being copied .Thus such ideas are called a “ Hollow shell “ (Winter 1987), and it may not be viable .However if entrepreneurs have a comparative advantage in terms of competence and , ideas and ability to mobilize and combine own and complementary assets , then the business idea may be easily initiated , and this gives an entrepreneur a longer lead time over others (von hippel 1988) . Thus Greve 1994 hypothesizes that

Low density networks are more conducive than high density networks , are conducive than high density networks ,ie entrepreneurs in the later stage of the establishment process participate in ,low density networks than in high density networks , which is in line with Wilken’s 3 phase model .

Distance and Indirect contacts: Information may not always be available inside a cluster. A distance is referred to as one if the information exchange is between the ego and his contact within the network and as two if the communication is between the ego and the friend of the contact. The closest contacts may not always provide the necessary information required so an ego has to access information through a contact's friend, this is very advantageous as the focal person belonging to one cluster may be able to exploit the resources of another cluster through a contact. Thus Greve 1994 hypothesizes that

Knowledge of the network of primary contacts (indirect contacts) gives access to larger variety of contacts and increases the probability of success.

Background of contacts There are two dimensions to the background of the networking process one is related to the social context of the network, what type of relations the entrepreneur have with the contacts in a network, i.e whether they are family, friends or work relations, the other dimension is the kind of resources they can provide, like human capital, financial capital, expertise and references etc. Thus Greve 1994 hypothesizes that

Work related contacts are more conducive to entrepreneurship than other types of social relations.

Also the second background factor is the work experience possessed by the players in the network, people with business and management background can provide with better support than without it. The other hypothesis that he makes is

Occupationally active network persons and specially people with business and management background are more conducive to entrepreneurship .

3.3 Using social networks to enter a market strategic model (Casson and Guista2007)

Casson and Guista 2007 in their work “Entrepreneurship and social capital :Analysing the impact f social networks on entrepreneurial activity from rational action perspective “ uses a schematic network to describe how entrepreneurs might use a social network to enter into a market .They describe the whole strategy in a four state approach

State 1: Opportunity to enter an established market

Suppose that an entrepreneur considers there is an opportunity to enter market with a new product , but the market has been segregated between two companies in the following way

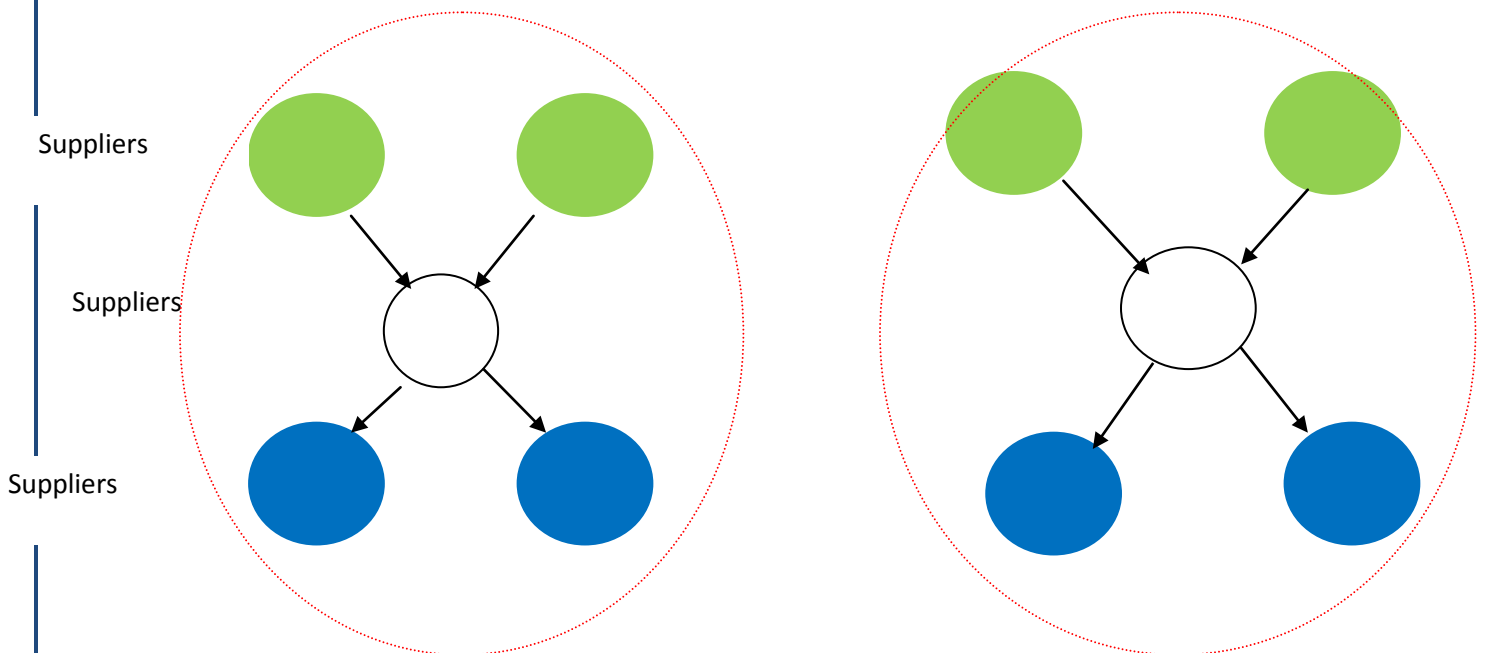


Figure 17 Entry Into an Established Market

Here the green and the blue dots represent the suppliers and the customers of specific companies respectively and the colorless dots as the intermediaries. At the outset the entrepreneur faces two rivals that has divided the market between themselves ,the two markets are shown by the red dotted arrows .The physical forms of business has been marked by the arrows. Usually the entities belonging to particular market does not overlap with each other .But there can be probability that some customers might change from one product to other if they are dissatisfied .The dissatisfied customers are represented by the dots which are nearer to the common edge of the two markets , similarly dissatisfied suppliers are represented by the circle nearest to the common edge .Now an entrepreneur needs to talk to each of these dissatisfied customer supplier asking them whether they are willing to switch. The entrepreneur cannot talk to the rival so he should observe the rivals moves only . Now the entry strategy is depicted by

Stage 2

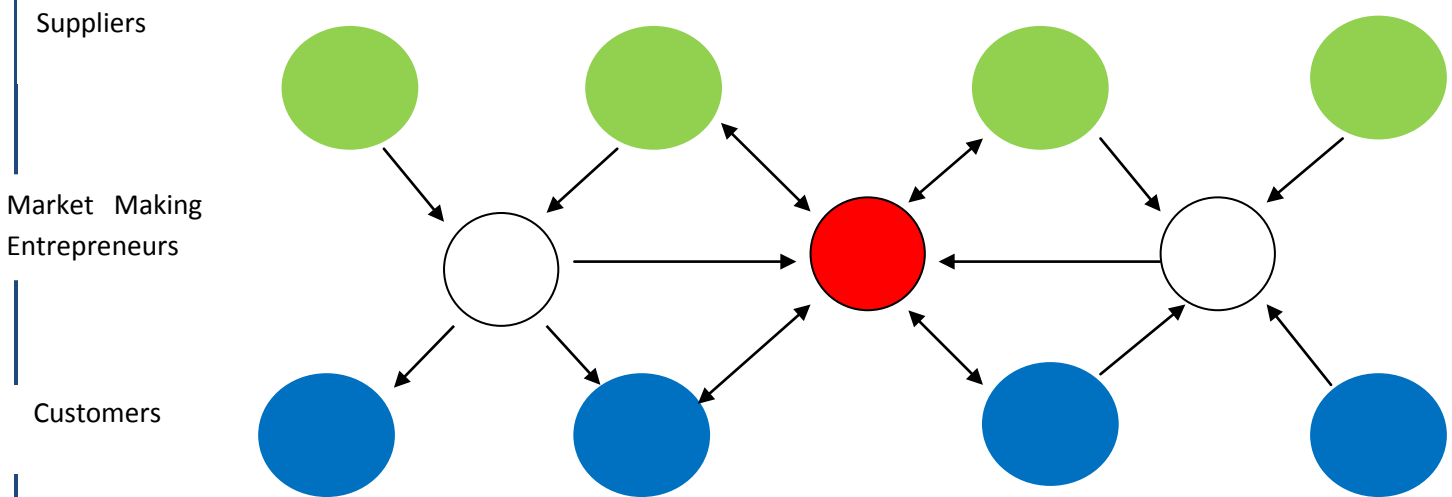


Figure 18 Positioning into an established market

The red dot here represents the entrepreneur trying to enter the existing market and an slowly trying to talk to each other’s supplier and customer, the dialogue

varies in both ways as represented by the arrows , only with the competitor it is unidirectional as the information gathered from them is only through observation .Now getting hold of any of the suppliers or customers directly might not be possible for the entrepreneurial firm it might be done through an intermediary contact .Now in the next stage we talk about the intermediary contact as the broker .The broker can function dual role as we see in the next model

Stage 3

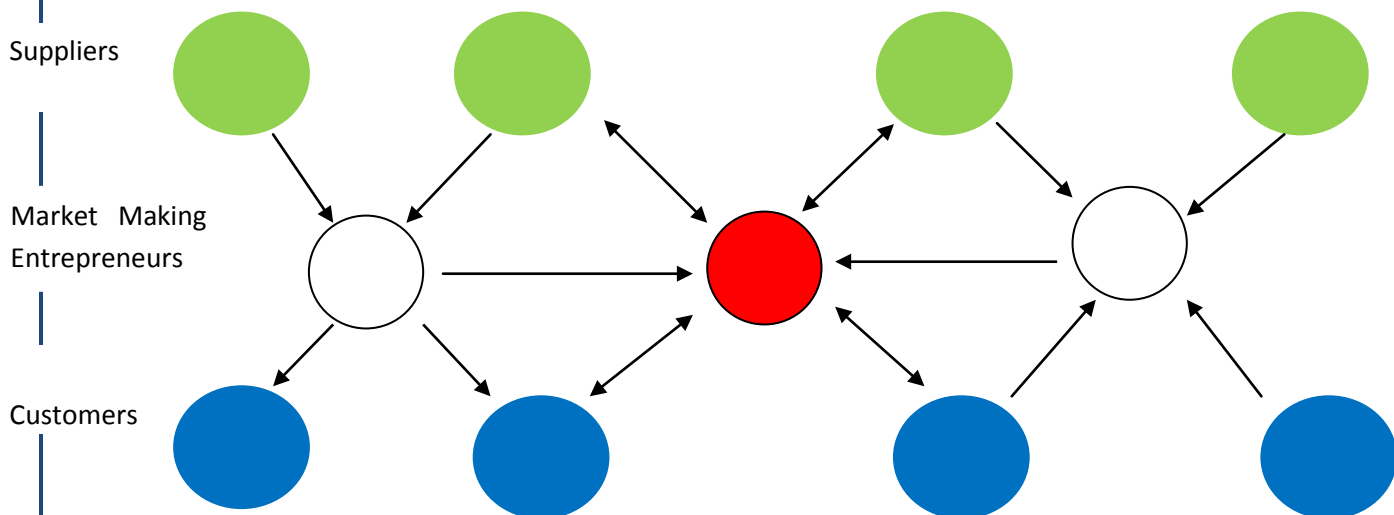


Figure 19 Functioning of the broker

The red dot here represents the entrepreneur trying to enter the existing market and an slowly trying to talk to each other's supplier and customer, the dialogue varies in both ways as represented by the arrows , only with the competitor it is unidirectional as the information gathered from them is only through observation Now getting hold of any of the suppliers or customers directly might not be possible for the entrepreneurial firm it might be done through an intermediary

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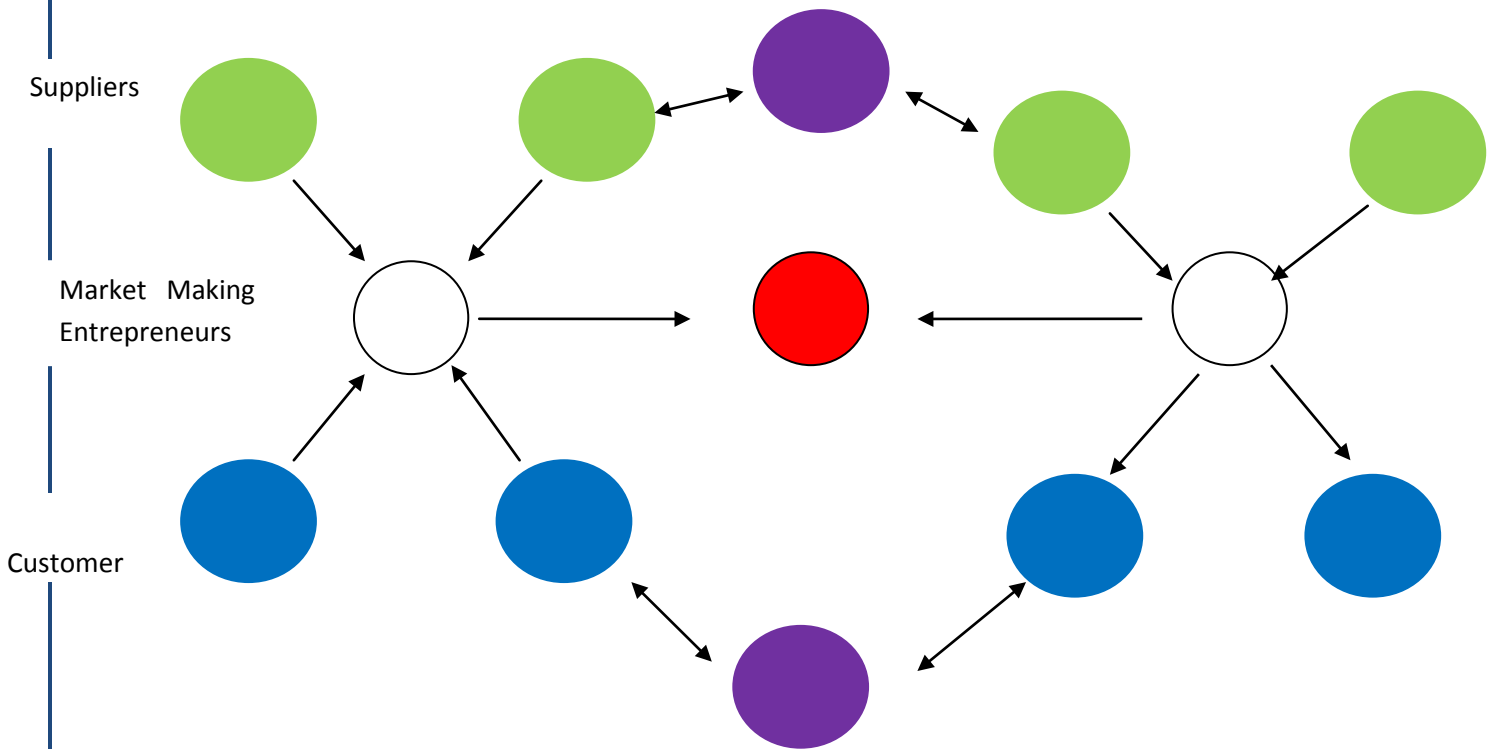


Figure 20 The brokers role in entering the market

In the above figure the circles in purple represents brokers now , brokers are the ones that can give contact to the entrepreneur trying to get into market to the respective suppliers and customers so they serve the purpose of a **contact broker** also they can verify the trust of the customers and the suppliers and act as a **trust broker** .

Now in Stage 4

In this stage the entrepreneur in the red dot moves into the market and gets hold of the supplier and the customer ready to switch through the brokers .They also establish strong ties with the suppliers after verifying the trust in the relationship .Now after firmly establishing in the network and the market they try to acquire other customers who were not that willing to switch trying to acquire a bigger market share .This depicted by the diagram below

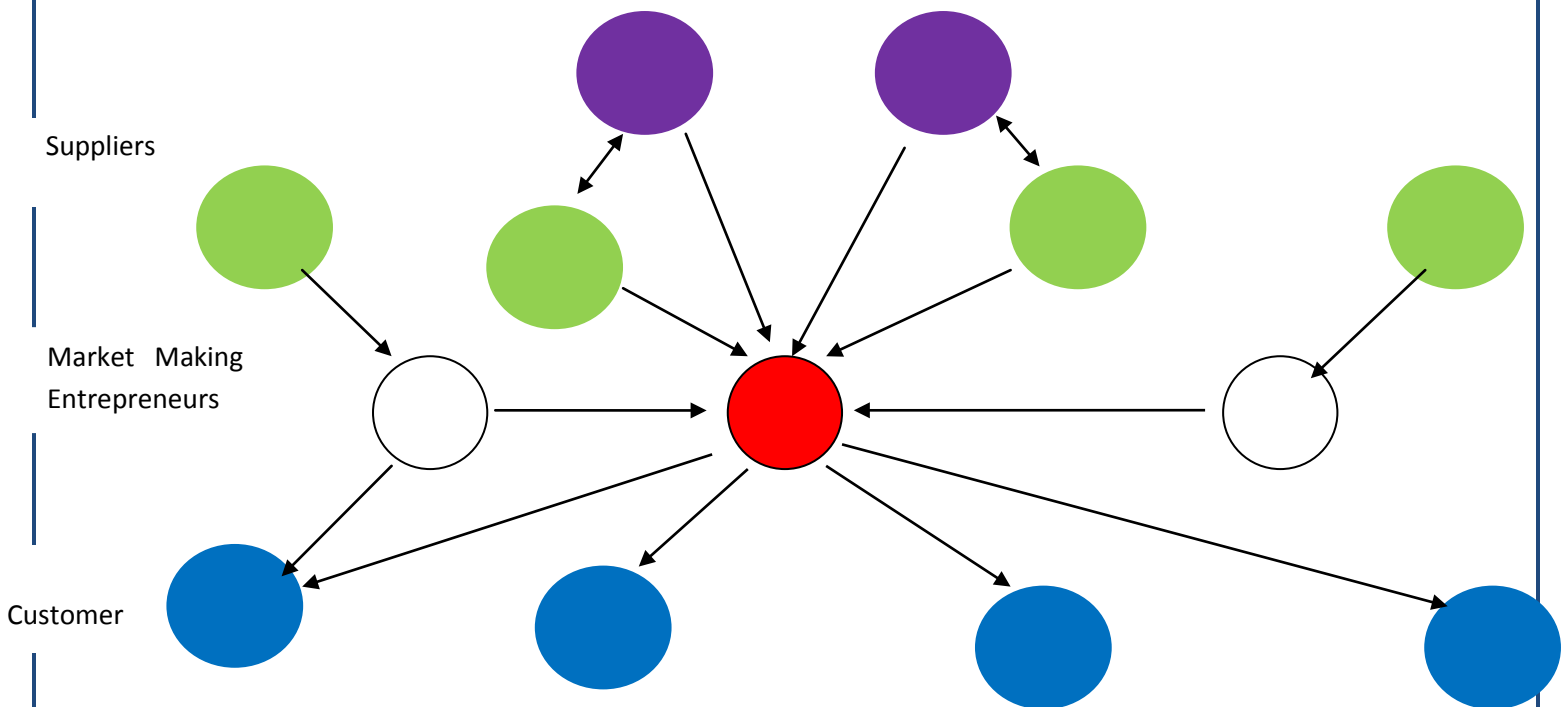


Figure 21 The changed position of the network Players in the market

3.4 Governance structure in the social network

In the social networks of the entrepreneurs , is not driven by purely economic driven contractual relationships ,more by mutual trust ,for example if one party provides advice, resources or helps the other out the other party feels obliged to

help out .Trust is cited as one of the most important characteristic of a social network that enriches the quality of the information flow (Larson 1992, Lorenzoni and Lipparini 1999). In particular mutual trust as a governance mechanism is based on the belief in the other partner's reliability in terms of fulfillment of obligation in an exchange (Pruitt 1981).Trust allows both parties to assume that each will take action that are predictable and mutually acceptable (Powel 1990,U (Hite)zzi 1997 ; Das and Teng 1998).These expectations in a way reduce transaction costs –for example monitoring and renegotiating the exchanges in reaction to environmental changes –particularly in highly complex tasks facing strong time constraints (Jones et. al 1997).But to be trusted is not the same thing as to be trustworthy (Gambetta 1998),trustworthiness is an objective characteristic of an individual in a given type of situation , but it cannot be directly observed .But a number of scholars have asserted that these distinctive elements of network governance , trust especially can create cost advantages in comparison to bureaucratic or market mechanisms (Thorelli, 1986; Jarillo, 1988; Starr and Macmillan 1990; Lipparini and Lorenzoni, 1993; Jones et al., 1997). Trust also helps in increasing the depth and richness of information in the network (Saxenian, 1991; Lorenzoni and Lipparini, 1999; Hite, 2000).

High amount of trust between networked partners helps in going beyond price and quantity discussion .A case study by Uzzi (1997) shows that suppliers of clothing manufacturing firm enhance their product by incorporating designs in their product which were hard to articulate and were difficult to communicate through market based mechanisms .Because of its positive effect trust is cited as one of the most positive factor in enhancing innovation and information flow

through interfere level or person level collaboration in a network (Hausler et al., 1994)

3.5. Marketing and Entrepreneurship the interfacing

(Kuratko 2006) points out that marketing and entrepreneurship being two separate branch all together but the interfacing between the two has been an interesting point of research .*Now why marketing is important for entrepreneurship ?* first because marketing is the skill which should be used by the entrepreneur to launch the business successfully, now (Hisrich 1992) points out that the surveys of entrepreneurs around the world has revealed that two of the biggest problems faced by entrepreneurs while launching a business is lack of seed capital and marketing abilities .Another problem that he mentions is that entrepreneurs have is 'Bag Mentality' they want to keep their invention hidden so in that case no feedback is obtained from the customers ,one factor we have discussed in the empirical section is how every time an organization founds a customer feedback from the customer helps in improvisation of the product .Now AMA(American Marketing Association) has brought together the different aspects of traditional marketing or administrative marketing and entrepreneurial marketing , the following table below describes the different aspects of marketing and how it differs for traditional marketing and entrepreneurial marketing .

The Different marketing components as suggested by AMA	Interpretation in Terms of Traditional marketing Administrative marketing	Interpretation in terms of entrepreneurial marketing
<i>Marketing as an Organizational Function</i>	Marketing is a function of the corporation and the business unit	Entrepreneur owner will be the CEO as well as the CMO, opportunity recognition that is both intended and emergent and is a central and unique component to the business , everyone in the firm is marketer.
<i>Marketing as a set of process for creating communicating and delivering value to the customers</i>	Value is the relationship between customer derived benefits and customer derived costs (kotler and keller 2006).Traditional marketers often see the value relationship as the zero sum , resulting in outsourcing to drive costs down thereby allowing the price to be decreased by the customer .	Entrepreneurial marketing uses innovation , product process and strategy to create new value propositions for customers and thereby generate competitive advantage for the firm (Covin and Miles 1999)
<i>Marketing is a set of process for managing customer relationship to the benefit of the organization and the stakeholders</i>	Traditional markers uses financial metrics as a measure of success	Social networking and relationship with customers and other stakeholders is at the foundation of Entrepreneurial Marketing , It is this capability that allows entrepreneurial firms to gain advantage

Table 5 Aspects of Marketing from conventional and entrepreneurial view

Now in the above table it can be seen that previously established networks of the founders are the major force behind the success of entrepreneurial foundations. Many authors have voiced the fact that the two orientations marketing and entrepreneurship are not the same, though they believe they are connected. For example (Carson 1995) believes that

“There are similarities and dissimilarities between entrepreneurial decision making and formal market planning and management competencies and contact networks”

Here also says that competencies like use of network, good analytical and judgment skill and touch of innovation and creativity are some of the common qualities that are shared by both an entrepreneur and a marketing manager.

If we refer to the diagram developed by (Omura et. al 1994), which is based on Schumpeter (Market situation) and Kirzner (discovery of markets).

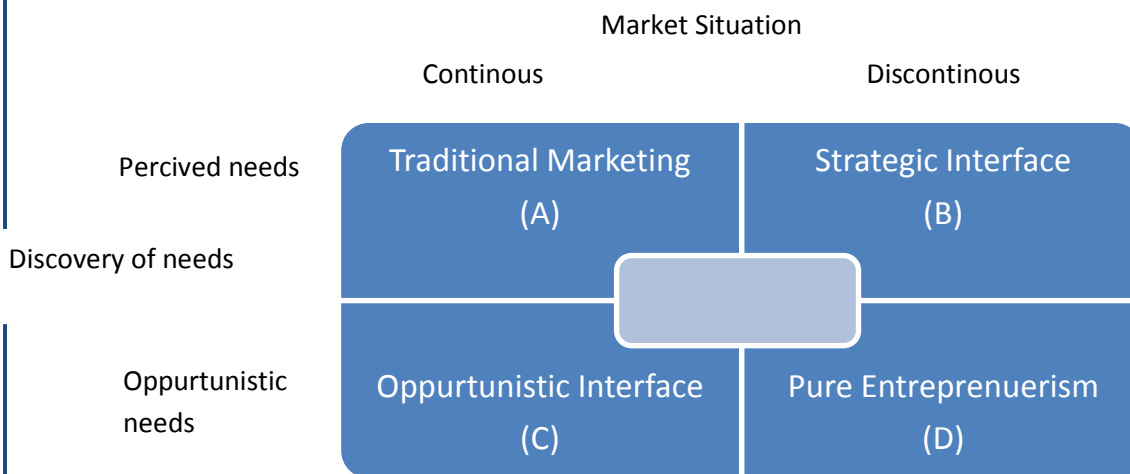


Figure 22 2*" Matrix describing The interface of Marketing and Entrepreneurship

In quadrant C and D it can be seen that there is an existence of opportunistic needs while as in quadrant D it is pure entrepreneurship as there is present turmoil in market conditions and presence of opportunistic needs to be exploited , but on the other hand in case of quadrant C though there is less turmoil in markets there is the opportunistic need which can also give rise to entrepreneurship , we will notice this in the empirical section where the products launched by the spin offs range from both radical and incrementally developed new products .

3.6 The characteristics of entrepreneurial marketing

(Morris and Schindehute) describes the four dimensions of marketing which are proactiveness, risk taking ability , innovativeness and opportunity focus they are actually derived from the entrepreneurial orientation of the firm (Miller and Freisen 1983), there are other dimensions too as described as resource leveraging and customer intensity and value creation . Out of all the dimension we have discussed here are the following dimensions

Innovativeness Sustained innovation is the ability at an organizational level to create new ideas and innovation flowing (Runnser and Spanjol 2001) and bringing new ideas to the market . Now the role EM plays is from opportunity identification to concept generation to technical support to creative augmentation .

Opportunity focus This area relates to identifying undefined market areas , market imperfections and the ability of how to exploit them . Stevenson et. Al (1989) has proposed a series of managerial approaches the two most commonest form being pursuing opportunities unexplored without actually controlling the necessary resources required (Pure entrepreneurship) while the later being

efficient utilization of existing resources (conventional administrative behaviour)
(Hills et. al 1999) says that the research by marketing scholars has devoted little attention towards identification and pursuit of opportunity with EM focus
Customer Intensity As EM lies at the junction of entrepreneurship and marketing (Slater and Narver 1995) suggests “*Coupling a market orientation with entrepreneurial values provides necessary focus for firms information processing efforts while it also encourages frame breaking action thus greatly increasing the prospects of incremental learning*” .Thus (Han ,kim and Srivastava1998).The fact that the two aspects are intertwined may has suggested to form a single organizational philosophy (Morris and Paul 1987,Miles and Arnold 1991) .

3.7 Characteristics of Relationship Marketing in Entrepreneurship

The next part of the theory is related to the research question” *How the spin off companies utilize their first customer to improvise their product and get next set of customers* “.In this context the theoretical background chosen to describe the observed phenomenon is Relationship Marketing .Now what is relationship marketing (Berry 2008) defines relationship marketing as

“Relationship marketing is attracting, maintaining and--in multi-service organizations--enhancing customer relationships. Servicing and selling existing customers is viewed to be just as important to long term marketing success as acquiring new customers. Good service is necessary to retain the relationship. Good selling is necessary to enhance it. The marketing mind-set is that the attraction of new customers is merely the first step in the marketing process. Cementing the relationship, transforming indifferent customers into loyal ones, serving customers as clients--this is marketing too”

Though (Berry 2008)says that the condition of relationship marketing exists in service based firms where the following conditions exists

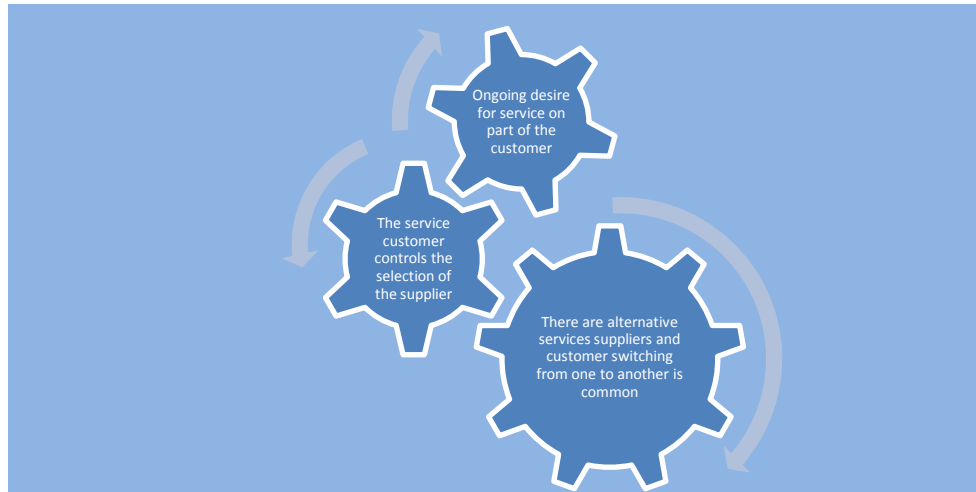


Figure 23 Conditions for relationship Marketing

The different relationship marketing strategies which has been applied by organizations are as follows

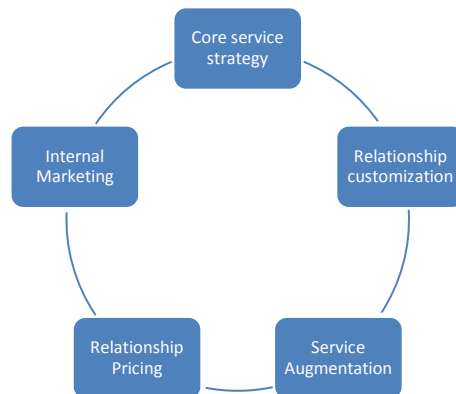


Figure 24 Strategies for using relationship marketing

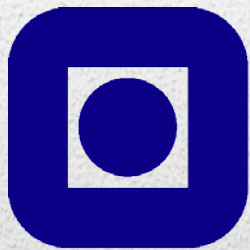
Now the different forms of RM strategy used by spin off firms are being discussed below

Core Services A key strategy of RM is the design of marketing strategy around a core service and around which a relationship with the customer can be build .

Customizing the relationship This mainly offered by a service based firm , but can also be applied by a new product based venture . It is about identifying the customers exact needs relating to the product around which the relationship is build .This helps in further strengthening of the relationship

Service Augmentation Another RM strategy is adding service extras but not competitive extras, by offering meaningful services and creating valued customers and increasing the trust in the process

Relationship Pricing An age old marketing strategy offered by companies is better price for valued customers encouraging to forge meaningful and trust based relationships



NTNU

Norwegian University of
Science and Technology

Chapter 4

Empirical Study

Abstract *In this section we perform the empirical research required to arrive at a conclusion .We have used research interview methods to analyze the research questions formed .*

4. Empirical Research

The empirical research conducted was done in form of research interviews , the description of methodology followed is give in details in the research methodology section .In this section we report the research interviews conducted , and in the next section we analyze them . At

first we report our research interviews done from Norway , from companies spinning out of universities like Norwegian University of science Technology and University of Trømso etc then we move on to Switzerland and Sweden , the reason for selecting these countries is that they are very highly ranked in the innovation index the details of data selection is given in Research methodology chapter .

4.1 Pre study or Pilot study of interview questions with Co-founder of Lim Sim AS

The pre study of the research questions were carried out in cooperation with the co-founder of Lim Sim AS .Some information about the background of the co-founder would be he is a graduate of the highly respected Norwegian University Norges Teknisk Naturvtenskaplige universitet in the program of Entreprenørskap and has previous background in civil marine engineering .His company Lim Sim AS was founded in the year 2010 .The company mainly dealt with developing FPGA based hardware solutions for acceleration data processing /simulation completion time .This face to face interview and discussion of the questions were carried out in Trondheim Norway As stated before the research has two objectives how academic spin offs acquire their first customers and how they utilize their first customers to improve their product and get the their next set customers . Now

the critical review of the questions are presented under the 2 research questions addressed in this topic .

How the first customer was acquired ?

Now the questions belonging to this particular topic were

The Question	Objective served	Critique
<i>Has the founder been a part of a university ,another research organization ,a spin-off company</i>	Background about the founder and the network that he/she brings along	No critique received
<i>When you were developing the product did you think of the market areas your product will appeal to?</i>	The marketing preparations done by the founder which is directly related to the successful launch of the product	No critique received
<i>Was your product a radically new product that did not have an existing market</i>	Radically new products and incrementally developed new products have a different way of creating market demand or entering the market	No critique received
<i>Did you do a market research before launching your product ,did you do it by yourself or did you hire anybody else ? How did you approach your first customer ? (Through previously established connections of the founders /through science conferences and</i>	The time spent on marketing efforts Mode of contacting the first customer	No critique received The different options given can make an interviewee think in a biased way , better would be to give no options and just to ask how they contacted the first customer

*seminars workshops /
through TTO (technology
transfer
organization/through the
financers Venture Capital
or Private Equity firms)*

*When you found your first
customer did you attract
your customer by
providing special
incentives like LOW
PRICES, FREE AFTER
SERVICES, EXTENDED LINE
OF CREDIT ?*

Luring or attracting
customers

Similarly like before not
to make the question
biased

Table 6 Critique for different part of the question 1

*How the first customer was utilized w.r.t improving the product through
feedbacks and getting the next series of customers?, now the questions
related to this part were*

The Question	Objective served	Critique
<i>After you got your first customer how much of feedback did you get about your product from your customer?</i>	Utilization of the first customer in getting feedback	No critique received
<i>How did you utilize those feedback inputs to customize your product according to the needs of your customer?</i>	Utilization of feedback in improving the product	No critique received
<i>Do you believe you got enough feedback from your first customer ,so that you had to do less</i>	Improving the product in a way to do less customization	No critique received

<i>customization for your second customer ?</i>		
<i>Did your first customer refer to your second customer?</i>	Utilization of the customer to get the next series of customers	No critique received
<i>So by following the above methodology do you think your product has had a successful launch in the market?</i>	Evaluation of the strategy	No critique received

Table 7 Critique for different part of the question for part 2

This is how a successful pre study or pilot study interview was carried out , the reason for carrying out such procedure as pointed out by (Baker 1994: 182-3) is to test out or trying out' of a particular research instrument One of the advantages of conducting a pilot study is that it might give advance

warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated De Vaus (1993: 54).The outcome of the pilot study was that the two questions which were considered a bit biased were modified and made more open without any suggestive answers .Now detailed description of carrying out Pilot studies has been given in the research methodology section

4.2Norway

NTNU(Norwegian University of Science and Technology) , is Norway's leading Technical and Engineering University It has strong research focus on petroleum ,geosciences and energy .It is also supported by SINTEF (Stiftelsen for industriell og teknisk forskning,) is Scandinavia's largest research organization .It has a strong technology commercialization program ,NTNU ,SINTEF along with TTO AS

(Technology Transfer Organization) has promoted the smooth transition of creative and innovative research projects into viable enterprises .The Interviews conducted comprises of the following companies spun off from mostly research projects conducted at NTNU

4.2.1 3D Radar AS

3D Radar AS is a electronics and communication based company specializing in antenna and 3d radar based communication .It uses Geoscope a GPR (Ground Penetrating Radar) based technology to map the subsurface and the materials present beneath the subsurface .The technology constitutes of the hardware ,geoscope ,the antennas and the 3d imaging software !It is not really a new technology and has been present for few decades¹ .The application areas of the product are .

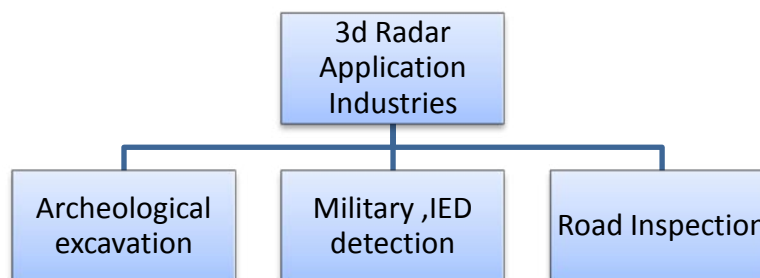


Figure 25 Different areas of Application for 3d Radar

The co –founder an associate professor in the IVT department at NTNU also several years of experience in the telecommunication industry was presented with the following questions

How did you contact your first customer?

The co-founder as stated was already part of a university and several years of experience in the telecommunication industry .GPR is an existing technology and was discovered in 1987 by Frankley Reservoir the product already had an existing market so it was not something radically new .No one was hired to do the market research it was performed internally by the co-founders and founders as a part of the business strategy as they had several years of experience . The most important of all questions was how they approached their first customers. The founder replied by saying that they put up there for demonstrations for potential customers in industrial science fairs In Tucson Arizona ,Washington DC , and in Leicester in U.K and also by their previously established industrial contacts .So they used their previous social network, especially the contacts specifically the industrial contacts . The interviewee said that they did not offer any special incentives but just highlighted enhanced performance of the product and better revenue margins

How did you utilize your first customer?

This question has two parts the first part being

How did the spin off use the first customer to improve their product?

The interviewee replied that they got continuous feedback about their product from their first customer ,and they mutually collaborated to develop the product further. They used all the feedbacks from the first customer to redesign and made multiple generation of the hardware equipment to meet the needs of the customer. The believed the customer feedback was sufficient enough

How did the spin off use the first customer to get the next series of customers ?

Yes their first customer referred to the second customer, and by following the

above method they believed they had a successful product launch and they said that if they tried out to do launch another company they would follow the same methodology

The next company interviewed was

4.2.2 Memfoact

Memfoact is a spin off from NTNU , they develop uniquely patented carbon membranes for viable separation of different gas mixtures .Their first product is an efficient compact and sustainable system for biogas upgrading to fuel quality bio -methane .It makes the production of fuel economically even for small and medium sized biogas plants . This has not been possible before. We are about to deliver three commercial pilot plants to important customers. The major shareholders in the company are Viking Venture, Salvesen & Thams, Alliance Venture and GLØR. MemfoACT grew out of the laboratories at the Memfo research group, situated at the Department of Chemical Engineering at NTNU. The research group, led by Professor May-Britt Hägg, has received international recognition for their efforts within membrane technology². MemfoACT has managed to raise more than 35 MNOK to develop our patented carbon membrane since 2010.The person interviewed was the co-founder and the CEO of the organization. The interview went as follows

How did you contact your first customer?

To this question the co-founder replied by saying ,that this company grew out of the research project conducted at the Memfo research group at the department of chemical engineering at NTNU .So one of the founder was a part of the

university from the beginning and before launching the product they already had a target market for the product as the product was not radically different and had an existing market for the technology .The product they made was more efficient in a sense it makes the production of bio gas cost efficient .Before launching the product they did a market survey by themselves and also by a consultancy company. So they contacted the customer by direct sales and marketing approach also they marketed their product at conferences to get directly in touch with customers. The interviewee believed that to attract your first customer you should provide incentives and providing price incentives does lure customers to get interested in the product .

How did you utilize your first customer to get your next series of customer ?

This question has two parts basically that is how they utilized the first customer to improve their product and also get next series of customer .To the first part the interviewee said that improvisation is a constant and dynamic process so the feedback keeps coming directly from the customer .The product has not been launched yet in the market but the interviewee believed that the second customer actually asks for reference from the first customer

4.2.3 Breivoll Inspection Technologies AS

Breivoll Inspection Technologies (BIT) has developed a tool and method to assess the **condition of water mains**. They cooperate closely with some of Norway's largest municipalities, research institutions (both Norwegian and from abroad), specialized manufacturers and public policy makers.

As the first company in the world they carried out inspections using a Pipe scanner, an inspection device that uses acoustic resonance technology (ART). On the basis of the collected data, a condition report is made and supplied to the customer. The target groups are public and private administrators and owners of water distribution networks, consultancy companies, contractors and relevant public authorities and also in assisting asset managers in optimizing maintenance and rehabilitation of water distribution networks, thus contributing to a more effective and efficient management of a vital resource. The efforts resulted in getting the Norwegian award 'Engineering Achievement of the Year' in 2007³.

The interviewee was presented with the following questions and these were the responses

How did you contact your first customer?

The board of the company consists of people from different backgrounds and has people who had people who had previous experience in setting up companies to being part of research universities. The product developed by them was based on acoustics resonance technology to detect faults and leaks in water mains. According to the interviewee this was a radically new technology and did not have an existing market. Their market research strategy was to contact various big Norwegian players in the market and know the exact requirements. Now even though they had a big network they did not contact their first customer using their networks rather they directly contacted the customer and their first customer was the municipal corporation at Trømsø. They provided no incentives to attract the first customer.

How did you utilize your first customer?

Like described before this question has two parts the first part being

How did the spin off use the first customer to improve their product?

The answer to this part was actually answered by the interviewee in the previous part , but it is being presented in this part for parity .They actually developed their technology in collaboration with their first customer , so as they were in continuous touch with their customer they got relentless feedback from them .The customer participated in the testing of the product too .They tried to implement most of the customer's request as much as realizable and the product customization for their second customer had to be much less .

How did the spin off use the first customer to get the next series of customers ?

Now the response to this question was really straight forward the first customer referred them to the second customer. Which was a result of high trust gained during the process and a satisfied customer.

4.2.4 Tromsø Telemedicine Consult AS

Telemedicine is the use of telecommunication and information technologies in order to provide clinical health care at a distance. It helps eliminate distance barriers and can improve access to medical services that would often not be consistently available in distant rural communities. It is also used to save lives in critical care and emergency situations⁴.

Although there were distant precursors to telemedicine, it is essentially a product of 20th century telecommunication and information technologies. These technologies permit communications between patient and medical staff in the transmission of medical, imaging and health informatics data from one site to another. The founder of Tromsø Telemedicine Consult AS has an experience of over 15 years and uses his experience to consult companies to set up .The way of strategic consulting is as follows

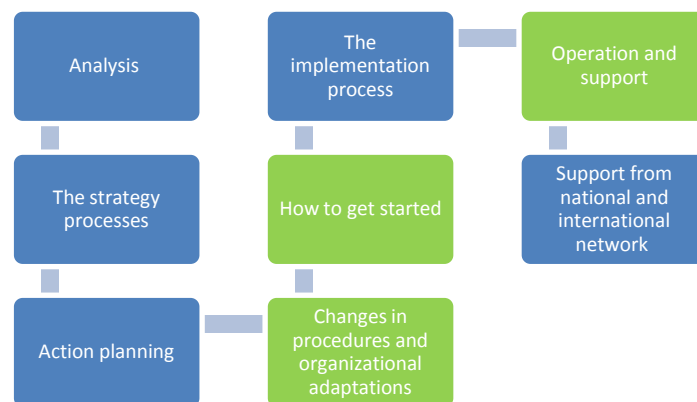


Figure 26 The implementation flow of the process

The interviewee was presented with the following questions and these were the responses

How did you contact your first customer?

The founder was also a part of another spin off company , and had around 20 years of experience especially that gained in working under WHO .As the founder had an extensive knowledge in this particular area especially when he was consulting to the companies in the healthcare sector in Norway both private and public .The market research was done by themselves because of the experience

they had in the sector. Now they approached the first customer through previously established contacts , especially the founders contacts he had in Denmark and Australia .when refereed to any incentives if they were presented to the customer ., he replied by saying that the customer was more attracted by the knowledge of the founder and also the trust gained while working with the founders .

The next question that followed was

How did you utilize your first customer?

Now again this question has two parts the first part being

How did the spin off use the first customer to improve their product?

The answer to this question was short , as their first customer was a big company they really did not have time in giving any feedback .So at the end they hardly got any feedback from the first customer .

The second part being

How did the spin off use the first customer to get the next series of customers ?

The first customer did not refer to the second customer , the second customer was acquired again through the established network of the founder .The founder believed that though this was not an efficient way of launching the company but meetings are very important in clearing up miscommunications .

4.2.5Misa AS

MISA AS was founded by a group of enthusiastic associates from the Program for Industrial Ecology at the Norwegian University of Science and Technology (NTNU)

in Trondheim. We had observed a need for improved environmental analyses to support decisions in industry, trade and public offices.

Through research and application at NTNU, MiSA has built a solid specialist proficiency within the field of life cycle assessment (LCA), input-output analysis, environmental impact assessment, process modeling and other tools that can be used to support general decisions concerning environmental performance. We use the latest developments in these fields in our projects and tools. This makes MiSA a unique consultancy for environmental systems analysis in Norway.

They keep themselves updated on developments in our field by participating in research projects and maintaining constant contact with NTNU, SINTEF and other leading groups in addition to maintaining a large network of affiliated consultants and experts⁵.

The different services offered by MiSA are as follows

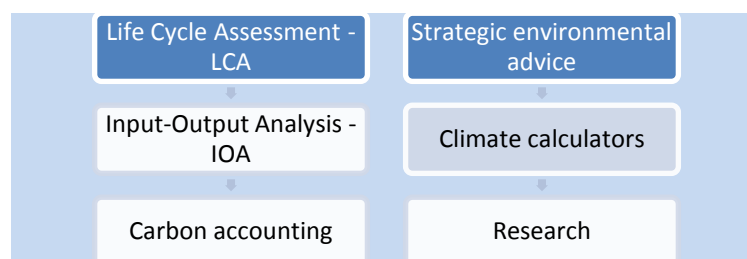


Figure 27 Services offered by Misa AS

The interviewee was asked the following questions

The first being

How did you contact your first customer?

The interviewee was one of the co founder and was a post doc scholar at NTNU ,and the other founders one of them was a professor at NTNU and the others

were researchers .While developing the products they did think of the different market areas the product will appeal to but did not do any specific market research or hire any other consultancy organization to do the market research for them .They got their first customer through personal contacts .The incentives offered by the company to the first customer were the competence of the product and nothing else .

The next question was

How did you utilize your first customer?

Now again this question has two parts the first part being

How did the spin off use the first customer to improve their product?

The spin off did not get any feedback from the first customer , so there was hardly any modification of the product done .

How did the spin off use the first customer to get the next series of customers ?

The spin off neither got any reference from their first customer to the second customer , although this spin off could hardly utilize their first customer they believed that their product launch was really successful .

4.3 Switzerland

The next country from where the spin companies were chosen is Switzerland .The reason we chose this country is because it ranks one in the innovation index .Its economy is a high tech economy it houses worlds two renowned universities ETH Zurich and EPFL ,highly renowned for producing cutting edge research .The companies interviewed were the following

4.3.1 Ecospeed AG

Ecospeed AG combines knowledge areas from climate , energy carbon emissions an information technology .So under one roof there are personnel from different backgrounds .The main product by them is Energy consumption software which calculates energy balance and had been divided into three categories of products ,region, business and private .It originated from a research in ETH Zürich especially from the environmental engineering department⁶

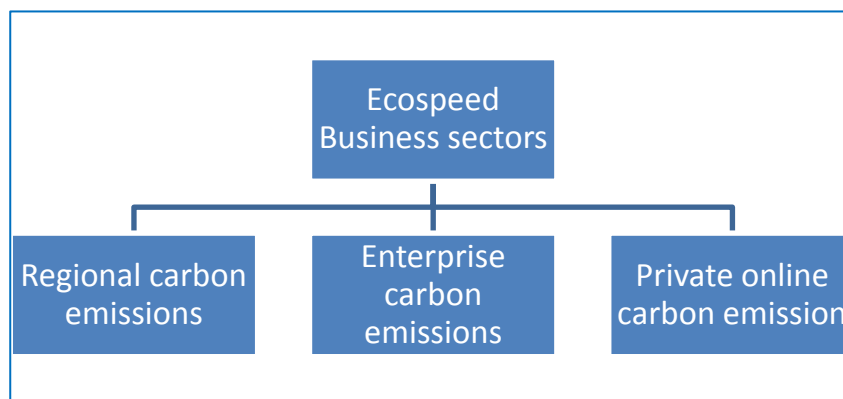


Figure 28 Ecospeed AG business area

The interviewee was presented with the following questions

How did you contact your first customer?

To this question the interviewee replied by saying that the founder and the current managing director of the company Christopher Hartmann was a part of the environmental engineering department at ETH Zurich . During the development of the product they did think of the market but since the nature of the product was radically innovative there was no existing market , although there was non existing market but the team still believed that sometime in future their product will have great demand in the market. They found their

customer from their network .The interviewee also added that one way of attracting their customer was reducing the ,license fee for the software

How did you utilize the first customer?

As usual this question had two parts the first part being

How did the spin off use the first customer to improve their product?

They got continuous feedback about their product from their customer, so because of the relentless feedback from the customer they kept developing their product .This in one hand was beneficial and also over complicated the product which was not so suitable for t5he second customer .

How did the spin off use the first customer to get the next series of customers ?

The first customer in away referred them to the second customer .The interviewee at last believes that the way they launched the product was satisfactory and they were the market leaders of their software .

4.3.2 Regioconcept AG

Regioconcept AG is a spinoff company formed from the transport planning and systems department .This company advises authorities in regard spatial and transport planning , as well as coordination of respective resources .They employ conventional planning instruments in addition to many simulation software like Urbansim , especially producing and European version called Urbansim E⁷ .

Now the interviewee was asked the following questions like before

How did you contact your first customer?

To this question the interviewee replied by saying that, the founder was a part of

ETH Zürich transport planning and systems department .Before launching the product in the market they did a market research by themselves and found the product being a radically new product not having an existing market .They contacted the first customer through a third party , though who the party was ,not really clear .They did not offer any incentives to their customer for buying their product .

How did you utilize the first customer?

Like before this question having two parts the first part being

How did the spin off use the first customer to improve their product?

They were in continuous touch with the customer and continuously received requests from for improvement but some of the request were not feasible .

How did the spin off use the first customer to get the next series of customers ?

The first customer did not refer to the next customer ,and the company is yet to get its next customer , they are trying to get it through their existing network .But still the founder believed that the launch of their product was successful

4.3.3 k -Team

K team is a spin off from EPFL (École Polytechnique Fédérale de Lausanne). They Develop, manufactures and markets high quality mobile robots for use in advanced education and research. The Kheperaand Koala now a standard for academic research, while the K-Junior robot is designed for teachers and hobbyists. The KoreBot II, a single board controller, is a perfect solution for

Automation and custom robotics developments.

The company's experience in the field of autonomous mobile robotics applications allows it to provide best of breed solutions to the most demanding academic and commercial research laboratories in the world. K-Team Solutions have been successfully deployed in over 600 universities and industrial research centers in the world. The reasons for founding the company were very different, the product developed was not supposed to be use for commercial use , so building up a spinoff company was not their purpose⁸ .

The founder of the company was presented with the following questions

How did you contact your first customer?

Now most of the founders and cofounders of the company belonged to EPFL .The product was developed to suffice the needs of the department research not for commercial purpose , so it is after developing the product they realized that there was a market for it .The was extremely compact (6 cm diameter) while all other systems were huge (>40cm). This made possible to have a completely new way of using it. Their first customer was a colleague of their own department having the same requirement as them .

How did you utilize the first customer?

As usual this question had two parts the first part being

How did the spin off use the first customer to improve their product?

The spin off first had an interim set of users in the department who did not have commercial interests but were just users of the product, they provided continuous feedback about the product .So before getting their first customer their product was pretty developed .

How did the spin off use the first customer to get the next series of customers ?

The launch of their company was particularly not their objective , but they believed their first customer has referred to their second customer.

4.3.4 BlueBotics SA

The company is a spin-off company of the Autonomous Systems Lab, EPFL. Founded in 2001 with the mission to market innovative and promising mobile robotics technologies, the company is now active in two segments: Automation and service robotics⁹.

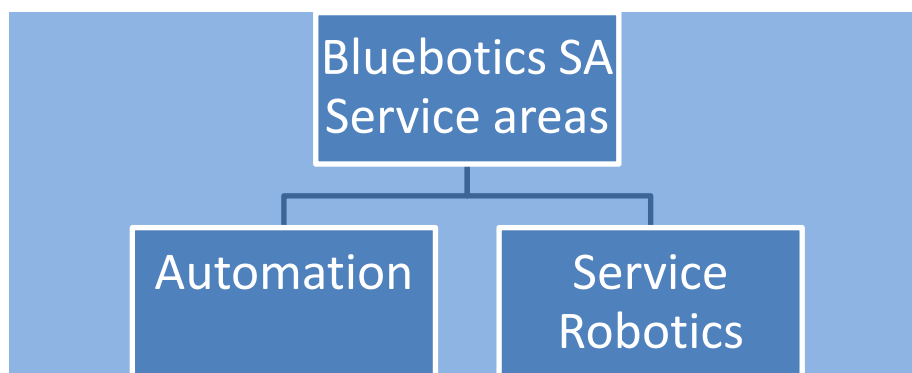


Figure 29 Bluebotics SA business area

Automation

BlueBotics' core business is the navigation market, where the company proposes [ANT®](#), its innovative navigation solution. [ANT®](#) - autonomous navigation technology - is opening the door to new applications especially in the light load logistics and the service robotics market.

Service Robotics

The company proposes R&D services based on its expertise in mobile robotics with standard platforms, feasibility studies, custom designs, and dedicated developments for automation, service robotics, and research. BlueBotics' expertise in mechatronics (mechanics, electronics, software and integration) allows for rapid custom developments with competitive prices.

Now the spin off was a part of research conducted at the EPFL and a lot of the founders were from the university .

The founder of the company was presented with the following questions

How did you contact your first customer?

Many founders and co founders were from EPFL , and at that time robotics technology was very innovative technology without having any clear market .They did a market analysis by themselves .So how did they approach their first customer , actually they did not use any existing network they directly went out and approached customers ,this has increased customer awareness and the end customers have pulled to integrate themselves with the suppliers .The way to attract customers was to position their product as a premium product .

Now the next question as usual had two parts .The second question being

How did you utilize the first customer?

How did the spin off use the first customer to improve their product?

They got a lot of feedback from the first customer, their first customer being early adopters , innovators themselves was always open to such innovative technology. So they kept giving them continuous feedback .They tried to incorporate all the feedback much as possible but mostly keeping it general not too customer specific ,so that the changes can be applied to all the customers

How did the spin off use the first customer to get the next series of customers ?

The interviewee said that the first customer had put in a good word for the spin off to the second customer and that is how they found their second customer .The co-founder also said that although they are satisfied with their product but there has been few challenges on the way .

4.3.5 Chem Aide

The next company interviewed was a chemical company developing inorganic chemical solutions .It is a spin off from ETH Zürich They believe in insertion of low-cost technologies to solve existing problems and thus contribute to improved quality of life and environmental protection¹⁰ . Its proximity to basic research. The main services of Chem Aide GmbH are

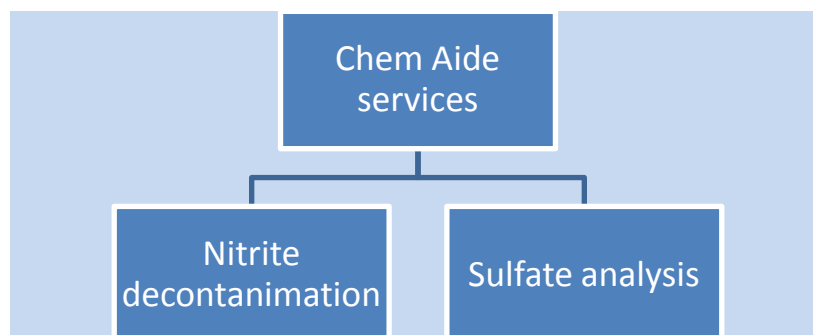


Figure 30 ChEmaide GmbH business area

Nitrite-decontamination: In drill and blast tunneling is onset of material that is contaminated with nitrite. Because nitrite is a toxic environment, must be excavated material disposed of each charge on the load on special landfills. Due to the treatment of the excavated material in a gravel pit on the nitrite accumulates in the resulting sludge. This results in significantly increased nitrite concentrations in the non-recyclable sludge so that it frequently in Switzerland on inert landfills, or even be very costly to dispose of reactor landfills must. The Chem-Aide GmbH in cooperation with the ETH Zurich developed a very cost-effective and environmentally friendly process, which breaks down the nitrite into non-toxic products. This method is successfully used in material processing of the Gotthard base tunnel.

Sulfate analysis : Required for concrete aggregates, such as gravel or sand, may not exceed a certain amount of sulphate. The determination of the sulfate content of the gravel on the wash water in a gravel pit is possible in some cases leads to a misjudgment. An appropriately analysis can be tested whether putative Committee may be used but not as usable concrete aggregate.

The interviewee was presented with the following questions

How did you contact your first customer?

The company was a spin off from ETH Zurich and one of the co-founder was from ETH Zurich inorganic chemistry department .Their product was actually developed on customer's request , so they already found the customer before developing the product but the customer was found through the professors network. So yes there was some effect of social network.

Next question being

How did you utilize the first customer?

Now the next question as usual had two parts .

The first part being

How did the spin off use the first customer to improve their product?

The interviewee said that they received very little feedback from the first customer , but they received some feedback about developing the analysis method for sulphate .So though the amount of feedback received was low some of it was used to improve the product .

How did the spin off use the first customer to get the next series of customers?

When asked whether the first customer actually referred to the second customer the interviewee replied by saying yes very much as the first customer were very satisfied with their work they referred them to another customer .They believed the launching of their products and services though challenging was a success by following the above methodology .

4.3.6 Cetra Fides GmbH

Cetra Fides GmbH is a Spin off from ETH Zurich from the agricultural and food science department , their product is very interesting one . It studies the meltdown behavior of ice creams . Objective quantification of the meltdown behavior ("meltdown tests") of ice cream is the conventional application of the MDA. Determining the meltdown behavior of ice cream through a combination of image analysis and conventional weight analysis was the driving force for

developing the Meltdown Analyze. Vision is a world with THE perfect ice cream. In our point of view key properties of a perfect ice cream are Perfect Shape Retention, Never dripping, Excellent Mouth Feeling, Well balanced Nutritional Values ,Excellent flavor profile .Their Mission is to provide ice cream industry with highly innovative and efficient measurement solutions for efficient and objective quantification of the meltdown behavior of ice cream¹¹.

The interviewee and the co-founder was asked the following questions

How did you contact your first customer?

When asked this questions the interviewee replied by saying that the founder has been part of ETH Zurich and also had 8 years of experience in the food industry and during his association he came to know about the product developed at ETH . So he developed the product to market the product and was not even involved in the initial product development .The product was being developed for the sake of research and experiment but during the product development the team did consider the different market areas the product will appeal to .So how did they find their first customer .The team actually entered their product in a scientific exhibition and it is from that exhibition they got their first customer .There was no incentives to attract the customer wanted to collaborate with the company to develop the product more .

The next question that followed was

How did you utilize the first customer?

Now the next question as usual had two parts .

The first part being

How did the spin off use the first customer to improve their product?

The customer was not sure what it wanted , and they changed their requirements quite a lot of times during the development process , the company tried to integrate all the feedbacks as much as possible but was not successful in integrating all the feedbacks .

How did the spin off use the first customer to get the next series of customers?

The first customer did not refer to the second customer, the interviewee believed that though they developed the product well the launch was though successful had a lot of hassles on the way .

4.4 Sweden

Sweden number one in the innovation index list, it houses few of the best renowned universities in Europe from KTH ,Chalmers technical university , Uppsala University , Karolinska University ,Stockholm University .The technology and innovation transformation procedure is supported by the government through the Vinnova Program .The company chosen for here as follows .

4.4.1 Xbrane Bioscience AB

Xbrane Bioscience AB was founded in early 2008 in order to commercialize innovations based on research made by Dr. Jan-Willem de Gier and Dr. Samuel Wagner at the Center for Biomembrane Research at the Arrhenius Laboratories at Stockholm University (www.cbr.su.se). Today the company also has an extensive collaboration with Assoc. Prof. Joen Luirink at the Department of Molecular Microbiology, VU University, Amsterdam. The company is situated in close

proximity to Stockholm University providing access to renowned research expertise and infrastructure. Xbrane Bioscience develops products for efficient and cost-effective production of proteins and protein based products in close collaboration with industrial partners. Xbrane Bioscience offers a unique proprietary product portfolio and world-leading expertise within protein expression. Xbrane Bioscience is developing a portfolio of innovative technologies, including platforms for the development of multivalent vaccines and the efficient production of proteins. More than 60% of all pharmaceuticals target proteins, and the majority of all new pharmaceuticals and vaccines are protein based. In research and development and production of these protein based therapeutics, finding the optimal conditions for protein production is often a time-consuming and laborious process¹².

Xbrane Bioscience has two tightly controlled bacterial protein expression systems. They enable expression of host-toxic and challenging proteins as well as high yields of soluble proteins.

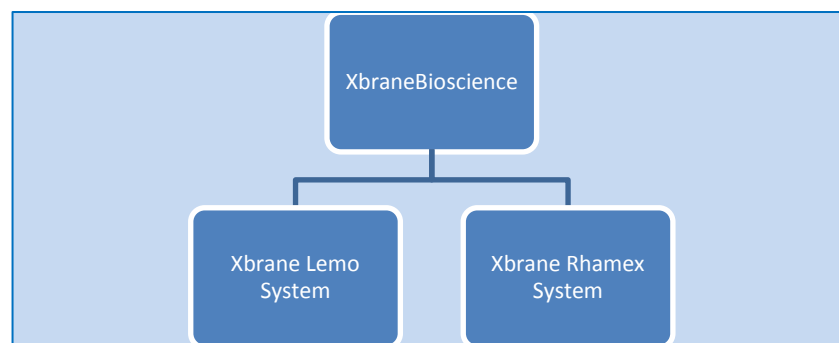


Figure 31 Xbranes solutions

The interviewee was presented the following questions

How did you contact your first customer?

The founders of the spin off were basically from the Stockholm University and also University of Amsterdam .It originated from Center for Biomembrane Research at the Arrhenius Laboratories at Stockholm University. When they were developing the product they thought about the areas their product would apply to , but hardly did a market research for it .So they got their contacts from their existing scientific community and they attracted their first customers by giving free test period .

The next question that followed was

How did you utilize the first customer?

Now the next question as usual had two parts .

The first part being

How did the spin off use the first customer to improve their product?

They got a lot of feedback from their first customer as the first customer was more or less friend of theirs , they tried to improve their product by incorporating the feedbacks in the product .But they felt that did not get enough feedback from the first customer.

How did the spin off use the first customer to get the next series of customers?

The first customer did not refer to the second customer , they believed that the launch of the product though at the end has been successful still they regularly need to incorporate customer demands due to the broad application base of their product .

4.4.2 Gavagai AB

Gavagai has developed Ethersource based on decades of research effort in computational and computable semantics. Ethersource is designed to emulate some of the key characteristics of human information processing in a computationally efficient way. At its core, Ethersource computes and tracks relations between terms in symbols in streaming language data. Through its design, Ethersource has inherent advantages to traditional approaches, both with respect to statistical language models and traditional vector space models, and with respect to knowledge-based systems. We welcome comparisons with any contender. Gavagai develops automated and scalable methods for retrieving actionable intelligence from dynamic data. Gavagai presents Ethersource, the next generation in intelligent information processing. Ethersource monitors dynamic text streams, detects useful signals, learns new concepts as they evolve, and captures actionable intelligence. Ethersource, in commercial customer use since May 2011, is currently used to track market mood with respect to tradable assets; to assess level of security threat to targets at risk; and to monitor consumer sentiment with respect to brands. Ethersource is designed to be a base technology for immediate deployment in any information system which relies on the analysis of large streams of text or other symbolic data in application areas such as search, big data analysis, enterprise data warehousing, associative advertising, social media analysis, deep packet inspection, or word-of-mouth marketing.

Gavagai's technology is mostly related to text analysis of data related to

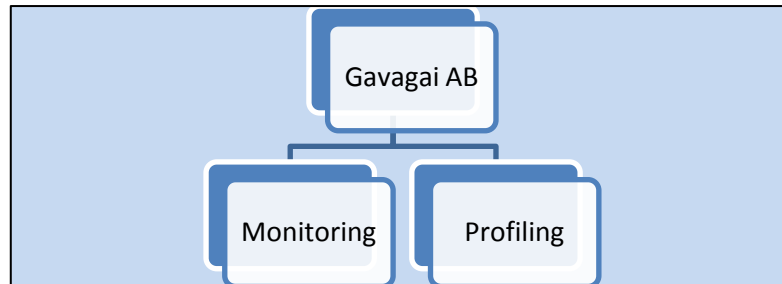


Figure 32 Business area of Gavagai AB

Gavagai was formed in 2008 by Magnus Sahlgren and Jussi Karlgren, based on over ten years of research in computation, linguistics and cognitive science at SICS, (the Swedish Institute of Computer Science), inspired by the groundbreaking work by Pentti Kanerva on Sparse Distributed Memory models. Pentti is now a scientific advisor to the company. The original founders, Magnus and Jussi, are the Chief Scientist and CEO of the company, respectively, with a team compounded of business developers, computational linguists, computer scientists and security analysts. Most of the staff have PhDs and publish original research in academic venues¹³.

The interviewee was presented the following questions

How did you contact your first customer?

The company is a spin off from the Swedish Institute of Computer Science ,and the founders were researchers there .When they were developing the product they did think of the different market areas but did not do any market research but they were interacting with different customers and they were getting requests from their customers for developing a product like this .So how did they find their first customer by queries to the research organisation from market actors: "could you help us with this problem? are you the right people to ask?" .So

it was not by using the networks but by direct marketing it is like creating a market pull before introducing the technology .So what were the incentives to the first customer to attract them to buy their product , it was just the superiority of the technology

How did you utilize the first customer?

Now the next question as usual had two parts .

The first part being

How did the spin off use the first customer to improve their product?

They got plenty of feedbacks from their first customer and they were pretty critical about their product ,they tried to integrate the feedback by improving their product .The feedbacks of their customer was very specific to their needs so integrating all of the feedbacks would actually result in developing a very specific product for only one customer .

How did the spin off use the first customer to get the next series of customers?

Their first customer did not refer to the second customer .Their product is yet to have proper market launch so they were unable to comment on the successfulness of the products launch .

4.4.3 Blutest AB

Blutest develops and manufactures reverberations chambers and software, for fast and cost effective development and evaluation of wireless products using small antennas. Blutest is a rapidly growing company with a state of the art test

method for all wireless devices with small antennas. The tests, for important end-user parameters such as coverage, throughput, and battery lifetime, are very fast and cost effective compared to traditional measurement systems. Bluetest has a globally spread distributor network and reverberation systems installed on many locations at various sites around the world. We have more than 40 customers worldwide. There are today no other test systems than reverberation chambers where the performance of MIMO antennas can be directly measured and Bluetest is today the world leader in MIMO OTA (Over The Air) testing and most of the major mobile phone manufacturers use Bluetest systems. The RTS60 and the RTS90 systems are the fast, cost effective, and physically smaller alternative to anechoic solutions. Measurements can be performed up to ten times faster and with similar or better accuracy than in anechoic chambers. For terminals with multiple antennas the reverberation system is the only instrument to directly measure diversity gain and MIMO capacity¹⁴. The main products of Bluetest AB are

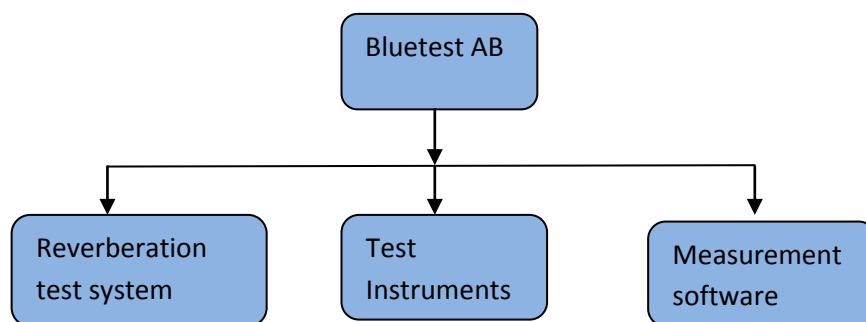


Figure 33 Bluetest AB products

The interviewee was presented the following questions

How did you contact your first customer?

Bluetest AB was formed as a spin-off company by Professor Per-Simon Kildal at the antenna group at Chalmers University of Technology, Gothenburg, Sweden in year 2000. The company has gradually introduced and verified the reverberation chamber as a method to accurately characterize wireless terminals with small antennas. The Bluetest standard chamber was developed during the first years and delivered to the first customer in 2002. The High Performance (HP) chamber was developed in 2006, and from 2006 – 2009 the sales grew by about 500%. In 2010 the new Reverberation Test System RTS6 and RTS9 series were developed and launched on the market. According to the interviewee it was a disruptive innovation and he did not think of the market areas the product would appeal to but never did a market research. So how did they get their first customer, it was something out of the blue as Samsung Korea called them and they were the first customer. The interviewee agreed to the fact this was a rare event and he had no idea where they had heard of them before. The interviewee agreed to the fact that they were not good at business part when they had started and they lacked the skill back in 2000.

How did you utilize the first customer?

Now the next question as usual had two parts.

The first part being

How did the spin off use the first customer to improve their product?

They hardly got any feedback from their first customer. As the customer was Samsung and they were very busy also the physical distance mattered too.

How did the spin off use the first customer to get the next series of customers?

The first customer did not refer to the second customer .But the interviewee said that the market launch of the product has been very successful and the main success of the product came after the company hired a new CEO .In his words *“But the growth of Bluetest happened after I found a trustable CEO who could build up the company and make it more professional. Bluetest has today 16 employees and an annual turnover of 40 Mkr, and it is expected to continue growing”* .

4.4.4 Medfield Diagnostics AB

Medfield Diagnostics AB aims to facilitate the diagnosis of stroke. Early diagnosis of stroke, if it due to a bleeding or a blood clot, will enable faster treatment than today possible.This eliminates suffering of affected patients as well as cost savings due to reduced healthcare and rehabilitation costs.

Medfield Diagnostics AB was founded in 2005 by Mikael Persson and Andreas Fhager to further develop and commercialise the microwave tomography technology, a product of years of research at Chalmers University, Biomedical Electromagnetics, Signal & Systems, Electrical Engineering¹⁵ .

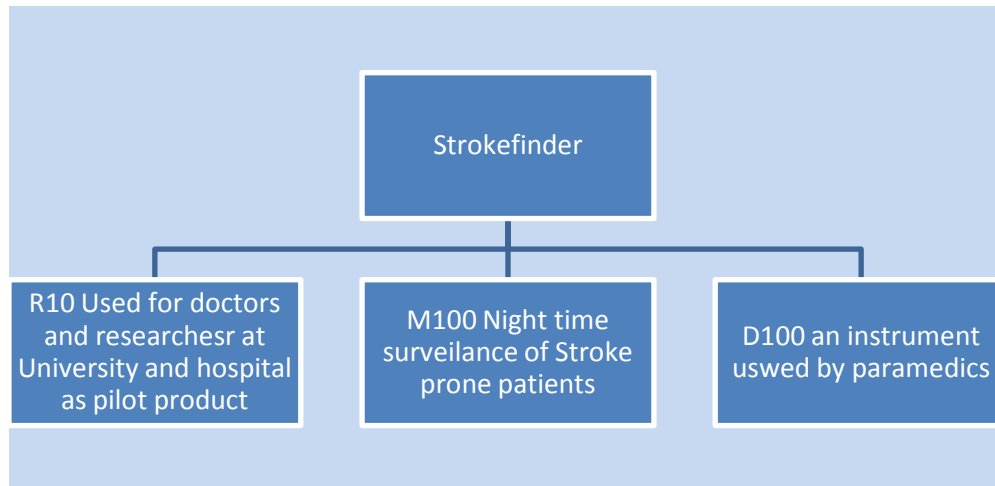


Figure 34 Medfield Diagnostics AB business products

How did you contact your first customer?

The company is a spin off from Chalmers University signals and systems research group in 2005 . It comprises of founders and co founders from the university also people who were in the board of other spin offs .Before launching their product they did a market research by a small consultancy firm .The first customer was approached through the previously established network .They attracted their first customer through reduced prices of their product .

Now the next question as usual had two parts .

How did you utilize the first customer?

The first part being

How did the spin off use the first customer to improve their product?

They believed they got a lot of feedback from their customer , and they fully customized their product according to the need of the customer .They did not

how ever mention that they over customized their product according to the need of the first customer ,

How did the spin off use the first customer to get the next series of customers?

They believed that their first customer referred to their second customer .Thus at the end they belived that following the above mentioned methodology that had achieved a successful launch of their product in the market .

4.5Belgium

The next country chosen for data collection was Belgium .Being highly positioned in the innovation index and housing the head quarters for the European Union at Brussels has turned Belgium especially Leuven area into an innovation hub. The following two bio science based companies were studied .

4.5.1 Fugeia

FUGEIA is an innovation-driven company active in the field of health and nutrition with a focus on digestive health. The company develops proprietary products and technologies targeted for a broad range of market segments, including dairy and non-dairy beverages, ready-to-eat cereals, cookies and biscuits, bread and pastry, as well as dietary supplements and therapeutics. s a spin-off from the University of Leuven (K.U.Leuven) and University College Sint-Lieven (KaHo Sint-Lieven), the company's success is built on solid scientific grounds. FUGEIA's products are the fruit of several years of basic research on natural plant-based compounds that improve health and well-being, and prevent diseases. FUGEIA was founded in February 2008 and successfully completed a 4.5 million Euro investment round in the course of 2008 . It is a privately held company led by an experienced

management team and board of directors, and is backed by a solid international consortium of investors¹⁶.

The interviewee was asked the following questions

How did you contact your first customer?

The company being a joint spin off from the K.U Leuven university and University college Sint Lieven .It mainly concentrated in the food industry and improving the quality of food. They were pretty much sure about the different sectors their product will appeal to and hired a specialized company to do the market research .So how did they contact their first customer , they contacted them at a scientific conference , without knowing them previously .So they approached their first customer directly without using their network . They used the license agreement as an incentive to get the first customer as the license agreement was made free .

Now the next question as usual had two parts .

How did you utilize the first customer?

The first part being

How did the spin off use the first customer to improve their product?

They believed that they got a lot of feedback from their first customer and they used those feedbacks to improve the product and they also believed that the amount of feedback received from their first customer was sufficient .

How did the spin off use the first customer to get the next series of customers?

So did the first customer refer them to the second customer , the answer was no maybe not enough trust was build during the interaction process was a suggestion

The next Belgian company to be interviewed was also from the Leuven region

4.5.2 Qaelum

Qaelum is a high-end start-up of the University Hospitals of Leuven and a fast growing company active in the field of quality management for medical imaging. We specialize in quality assurance of breast cancer screening programs and patient radiation dose monitoring for any digital modality. Our solutions allow healthcare institutions (hospitals, clinics, etc.), private practices and OEM partners to perform more relevant quality control and improve workflow efficiently¹⁷.

The interviewer was asked the following questions

How did you contact your first customer?

The founder were a part of the Leuven hospitals. They were quite aware of the market areas their product will appeal to .The product when being developed was really new in nature , the product basically concentrated on patient dose monitoring The market research was done by the co founder himself .So how did they found their first customer ? through the existing academic relations .So what was the incentive offered by the company to attract their first customers , they offered low process to compensate for the first bugs and customized the developments for free .

Now the next question as usual had two parts

How did you utilize the first customer?

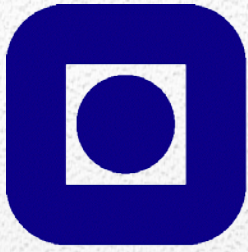
The first part being

How did the spin off use the first customer to improve their product?

They actually got a lot of the feedback from their first customer .The believed that these customers make the correct suggestions and help the business to go into the right direction .The biggest problem of researching in an academic setting is that 100*% of the business plan thought about does not match to the real life scenarios .So discussions with the first customer helps in shaping the direction the business is going to also the first customer can propose scenarios which the founder did not think of

How did the spin off use the first customer to get the next series of customers?

The interviewee believed that the first customer although did not refer to the second customer but did refer to other customers ,so there was case of trust being build and was utilized by the company to get its next series of customers



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Chapter 5

Analysis and discussion

Abstract *In the analysis and discussion part an explanation building method has been used to relate the study back to the research questions and also the theory used to support the research*

5. Analyses and discussion

5.1 Case Study analysis strategy and techniques

What is a case study ? there are multiple understanding of what a case study is according to Bromely (1990).

“It is a systematic inquiry into an event or set of related events which aim to describe and explain the phenomenon of interest”

As pointed out in (Yin 2009),that the analysis part is probably one of the most difficult yet neglected part in doing case studies. The four general strategies as suggested by Yin to do case study analysis are

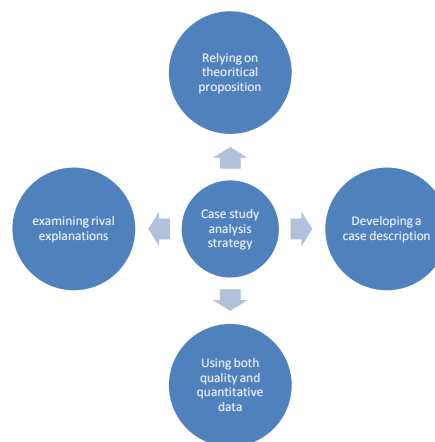


Figure 35 Case study analysis strategy

Relying on theoretical propositions, is a method by which the author has arrived at the case study .The original objective and design of the case study was based on such propositions, which in turn reflected the formation of the research questions ,the review of literature and the propositions .As the propositions would guide the data collection ,in this case the formation of research questions and would give priorities to relevant research strategies (yin 2009).The other

strategy suggested by Yin is to develop a case description .In this strategy a descriptive framework is developed for organizing the case study .This study is less preferable than the previous stated strategy .It is helpful when the researcher has collected a lot of data without even forming the research questions.The third strategy is to use both qualitative and quantitative methods. This is method is certainly for the advanced users.Explaining rival explanation ,it is the last general form of strategy ,it actually can be used with all other forms of strategy .It is a way by which any rival explanation is used to prove the proposed hypothesis right and the rival explanations wrong .Now the strategy used here is **relying on theoretical propositions**. The reason for doing it is as it is given in the flow chart below.

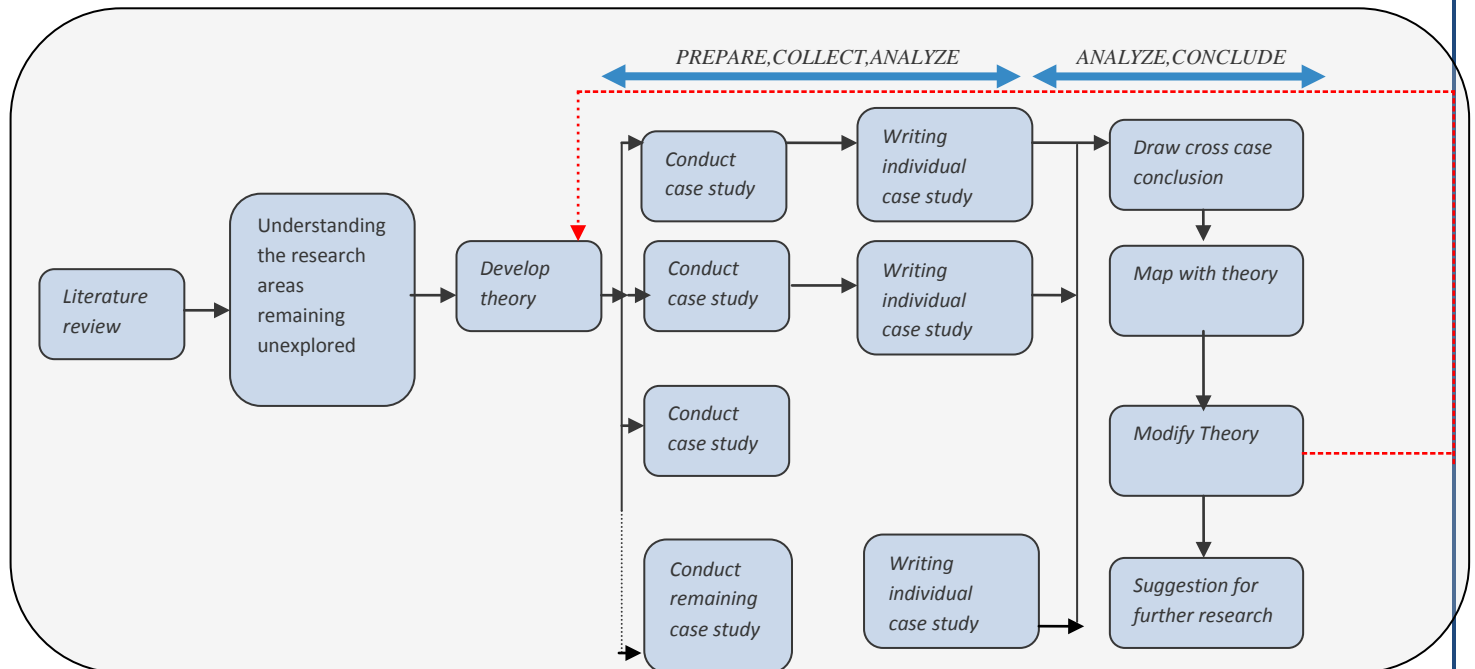


Figure 36 The design for analysis

Yin 2009 he has pointed out 5 techniques to do case study analysis ,the five techniques are as follows

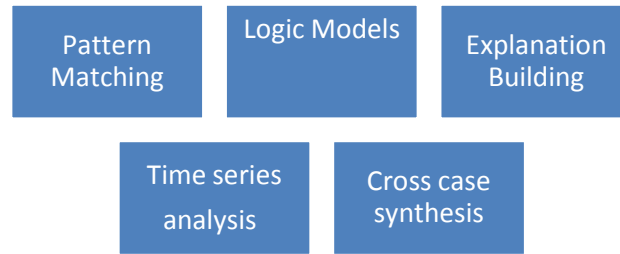


Figure 37 The different methods of doing case study analysis

One of the technique is to do pattern matching .By pattern matching technique one empirically based pattern is matched with a predicted one.The other one is time series analysis .Now by this method one can find the trends in a particular time series and can derive conclusions from them to support their hypothesis The other one being logic models .By this method a cause and effect relationship is explained in a sequence of cause effect patterns .The effect for on is being put into the cause of another The other method being explanation building .By this method a complex analysis is performed using causal links in a descriptive manner.The last method is applied when having multiple case studies and each case is treated as an individual case and the findings from them are aggregated together .Now the method used here is pattern matching , the reason for using is three basic archetypes have been proposed based on two pivotal issues one being *Mode of Acquisition of customer* and also *Utilization of the first customer* .These three archetypes are considered as the Hypothesized Models and they will be matched with the observed models . The two pivotal points are described below

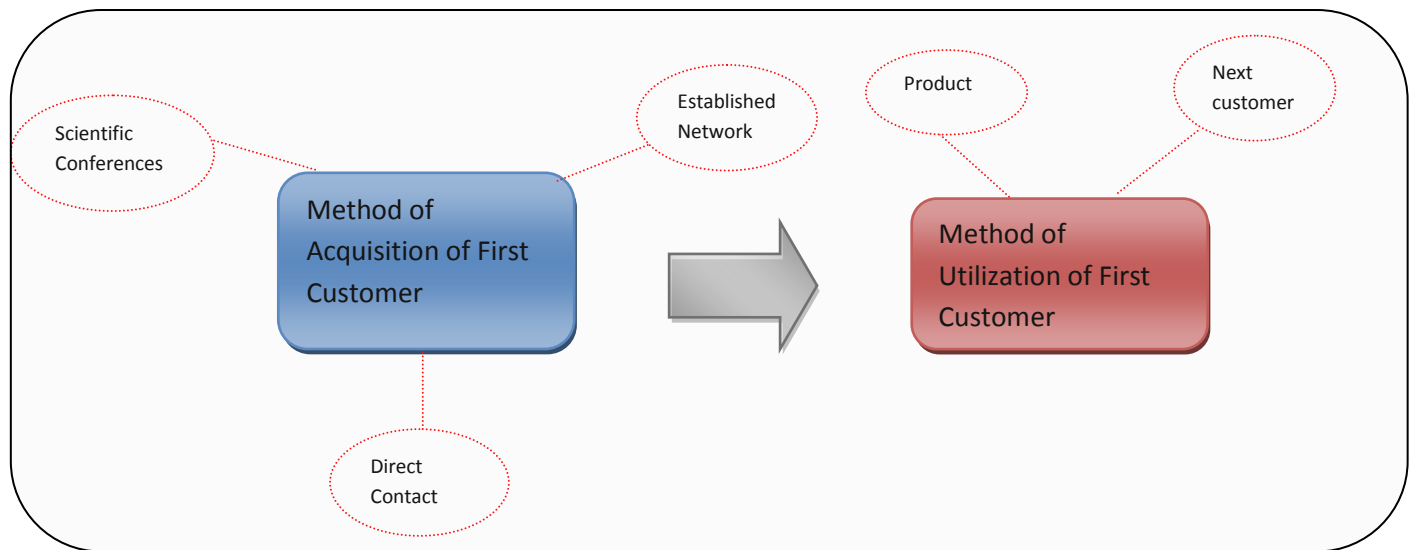


Figure 38 Two pivotal points for building the archetypes

5.2 The analysis

In this section we propose the three archetypes and describe them in details

5.2.1 Archetype 1

The model of the archetype has been described in the figure below and the relevant theory for each part has been described after that

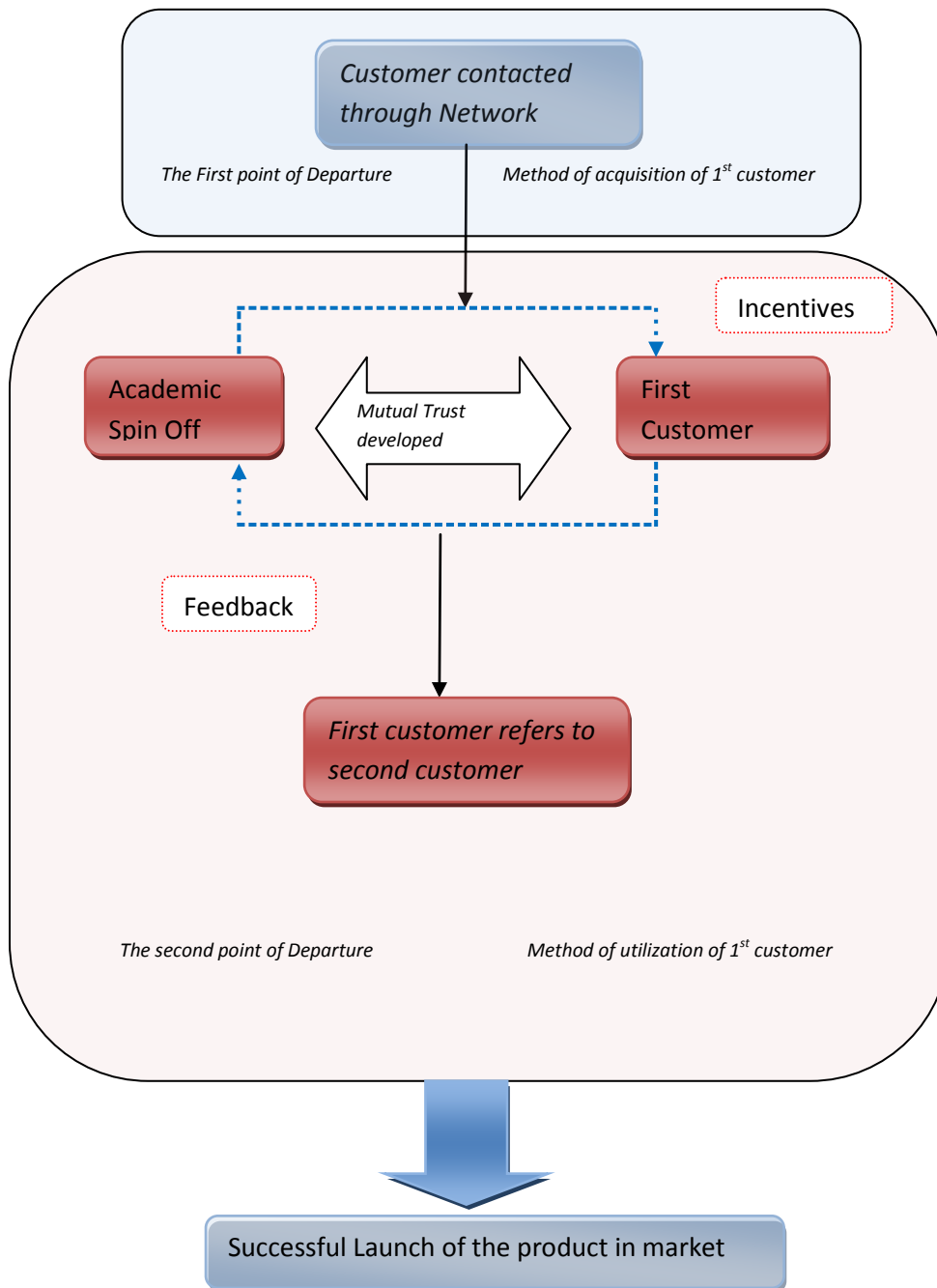


Figure 39 Archetype 1

Now the relevant theoretical propositions for the two point of departure has been referred here

1st point of departure method of acquisition of first customer Now the first point of departure actually presents the idea that an entrepreneur uses its network to access resources this has been pointed out by likes of (Pérez and Sánchez 2003), Walter et. al 2001 , Greve (1994), where as Walter et. al 2001 hypothesized that *Network Capability is associated with the spin off's performance*. For example Klyver et. al 2008 states that one of the most important resources that a social network can provide is information here the information can be implied to information related to finding potential customers

2nd point of departure method of utilization of the first customer Now the second point of departure presents that how spin offs utilize their first customer from two perspectives first to improve their product and also to get the next set of customers through the mutual trust build during the process of interaction . (Von Hippels 1988) *points out that customers can be an early source of technological knowhow for hi tech start ups .Now these relationships between the customers and the new ventures are very much base on mutual trust which has been highlighted by* Klyver et. al 2008 that one of the most important things that an entrepreneur can gain from a social network is credibility and recognition , also if we refer back to the theoretical section in governance of social network a detailed description of how entrepreneurial orientation embedded in social networks has been described .This way of collaborating with the customer even after selling can regarded a form of relationship marketing on an entrepreneurial front , as

pointed out by (Day et.al 1998).Close relationships with customers (Craig 1990 ,Gronroos 1990)over time produce tighter ties with its customer in terms of knowledge related ,information related or social in nature , and this gives the company immense advantage .Also (Fay 1994, Reicheld and Sasser 1994) points out that satisfied customers will refer new prospective customers

5.2.2 Archetype 2

The second archetype just been the complete opposite of archetype 1 , it's is just the opposite or in better way to say it is polarized towards direct marketing and that resulting in less trust being built archetype 2 as described below

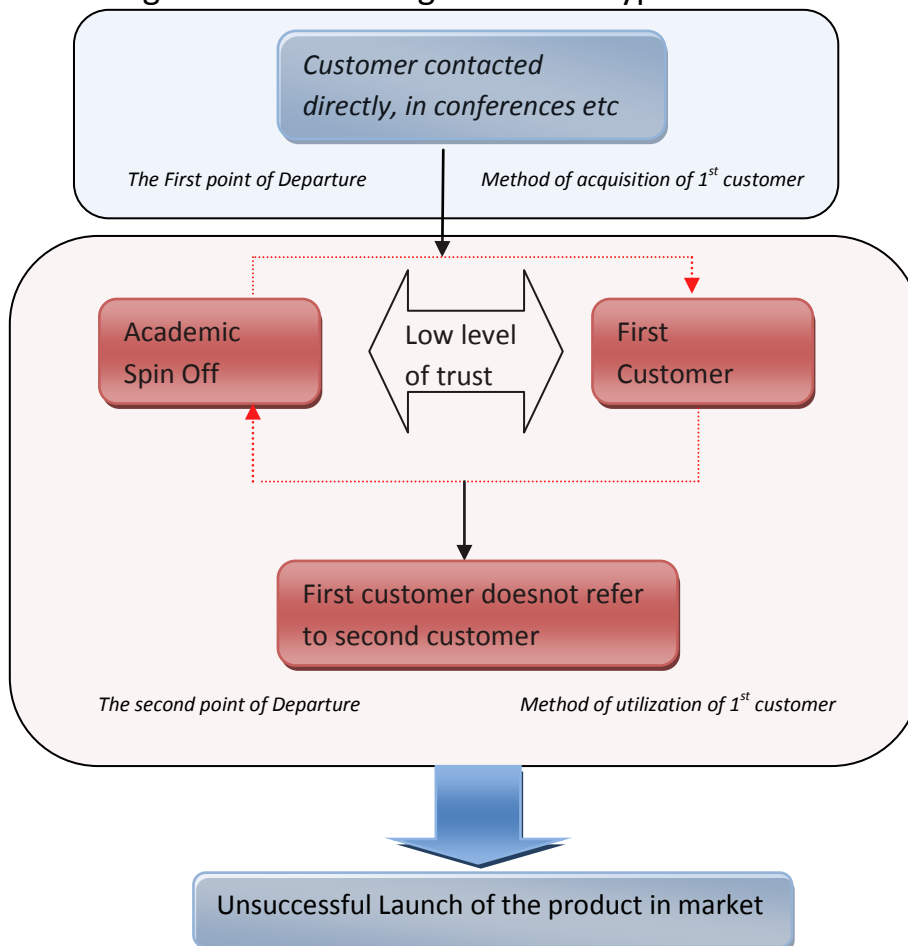


Figure 40 Archetype 2

The reason we have not used any theory to support this model because this is the rival explanation to archetype 1, so any theory used to describe archetype 1 will be just the opposite this theory .

5.2.3 Archetype 3

Now as said before all the archetypes are based on two dimensions the first being the social network orientation of the organization and the second being the first customer orientation of the organization, thus archetype 3 is based on the fact that the organization have high social network orientation but low first customer orientation .The outcome of such method might or might not lead to a successful product launch in the market

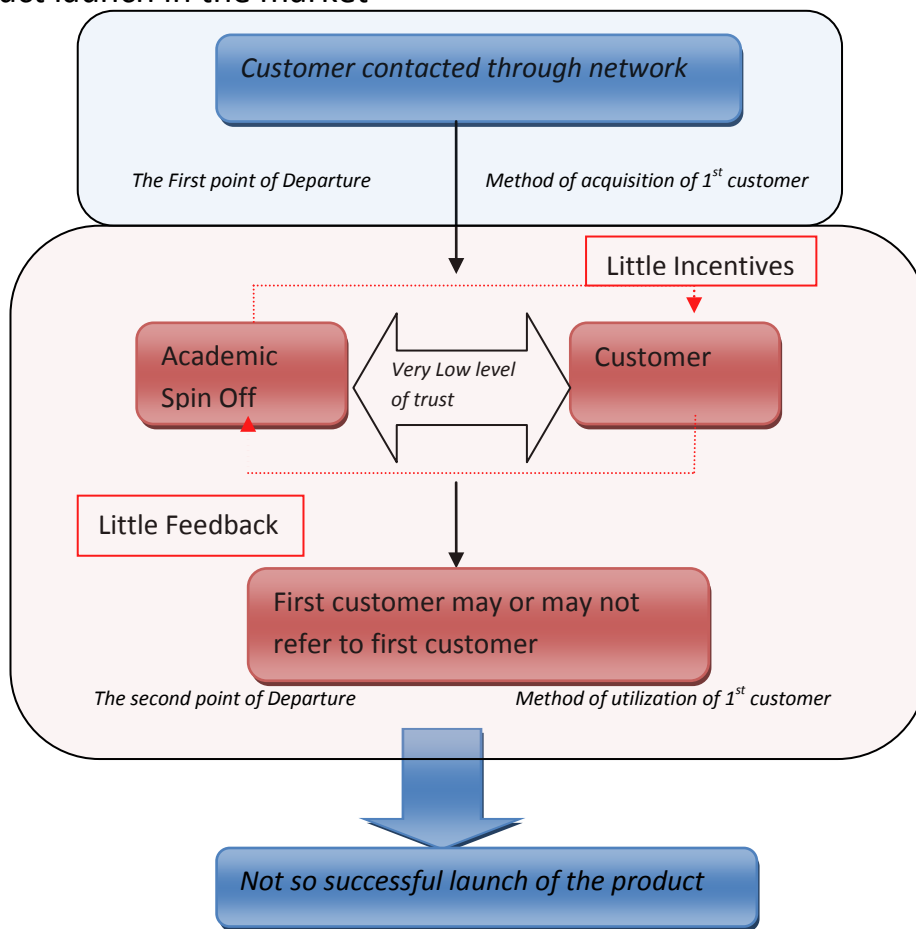


Figure 41 Archetype 3

The archetype 4 is built around on two dimensions the network orientation of the firm and the customer orientation of the firm .And here we are considering that the social network orientation is low as they are contacted directly and the customer orientation being high since exchange of incentives and feedback takes place .The model is described below

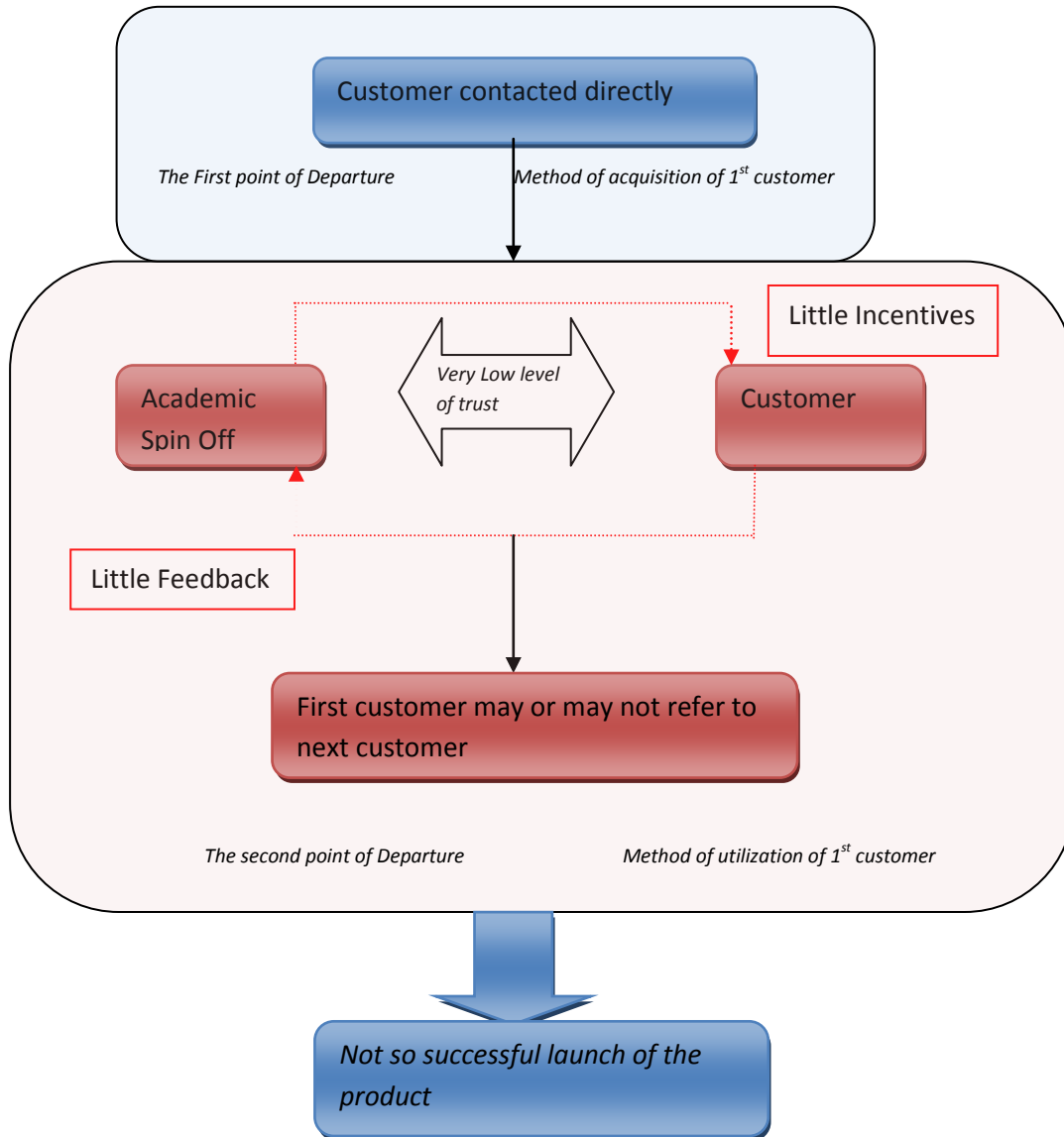


Figure 42 Archetype 4

5.3 The observed pattern

In this section ,we discuss the observed patterns .Now the observed patterns are here grouped according to their country of origin ,now the reason why they have been grouped according to the country of origin is because entrepreneurial orientation has been influenced by culture , it has been pointed out by (Klofsten and Evans 2000).The different pattern networking has also been pointed out by .Now we will try to analyze the observed pattern from the two points of departure s pointed above .The outcome is then mapped to 2*2 matrix and the different archetypes defined above are mapped .We start with the author's country of current residence

5.3.1 Norway

The number of companies interviewed were five in Norway from Bio Pharma to Telecommunication .They all originated either from the research conducted at NTNU or University of Tromsø .

1st point of departure method of acquisition of first customer Out of the five companies interviewed 3D Radar AS, Breivoll inspection technologies AS and inspection technologies AS and Misa AS had used their existing industrial network to approach their first customer whereas Memofact AS approached their first customers directly while attending a scientific conference .

2nd point of departure method of utilization of the first customer Now from this perspective the three companies 3d Radar, Breivoll inspection technologies AS, inspection technologies AS did not offer any incentives to attract their first customer their competence and the superiority of the product was the main USP for their product .In return either they received continuous feedback or did a joint

co development of the product with the customer , this in turn increased the level of trust between the customer and the company . Now a standalone case can be Misa AS who did not receive any feedback from the first customer and neither did they give any incentive to the first customer so the trust part of the relationship was really lacking reason why they had problems in product launch .Whereas the case of MemfoACT is seen they from the first approached the customer directly in a conference and then did not get much feedback from them, even the idea of a price incentive was suggested and not put into practice reason why their behavior was matched with Archetype

<i>Name of Company</i>	<i>Mode of contact with first customer</i>	<i>Incentives</i>	<i>Feedback</i>	<i>Reference to second customer</i>	<i>Outcome of launch</i>	<i>Archetype</i>
3D Radar AS	Through Industrial contacts	Better price margin , Improved product	Continuous	Yes	Successful launch	Archetype 1
Memofact AS	Directly through conferences	Price incentive	continuous	No	Has not been launched	Archetype 4
Breivoll inspection technologies AS	Through direct contact	No incentives	Co-development with first customer	Yes	Successful launch	Archetype 4
Misa AS	Through Industrial contacts	No incentives	No feedback	No	Not such successful launch	Archetype 3
Tromsø Telemedicine consult AS	Through Industrial contacts	No incentives	Continuous	Yes	Successful Launch	Archetype 1

Table 8 List of companies interviewed in Norway

Now if the firm behavior is mapped into a 2*2 matrix where the two dimensions being

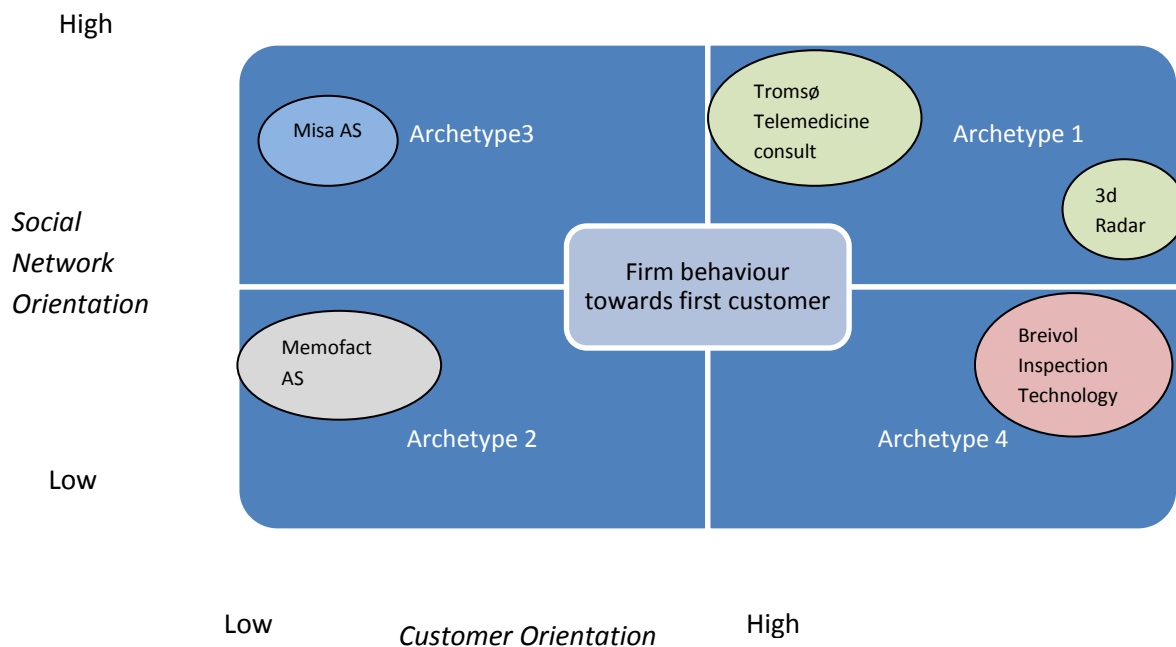


Table 9 Mapping of model followed by companies in 2*2 dimension

5.3.2 Switzerland

The number of companies who responded to be interviewed were six , they ranged from being renewable energy based companies to robotics and automation based companies .Some of the interviews like said was conducted via phone like before the analysis begins from two different points of departure

1st point of departure method of acquisition of first customer Now out of the six companies which were investigated four of them had used their previously established contacts to get hold of their first customer Ecospeed AG, Regioconcept AG, K Team, Chem Aide GmbH. But on the other hand Bluebotics SA and Cetra Fides GmbH had contacted their first customer directly through scientific conferences

2nd point of departure method of utilization of the first customer Now in here except Ecospeed AG no one else offers any incentives but they all receive feedback except Chem Aide GmbH who received very little feedback from their customer

<i>Name of Company</i>	<i>Mode of contact with first customer</i>	<i>Incentives</i>	<i>Feedback</i>	<i>Reference to second customer</i>	<i>Outcome of launch</i>	<i>Archetype</i>
Ecospeed AG	Through Industrial contacts	Reduced license fee	Yes	Yes	Successful Launch	Archetype 1
Regioconcept AG	Through Industrial contacts	No incentives	Yes	No	Successful Launch	Archetype 1
K Team	Through Industrial contacts	No incentives	Yes	Yes	Successful Launch	Archetype 1
Bluebotics SA	Direct contact	No incentives	Yes	Yes	Successful Launch	Archetype 4
Chem Aide GmbH	Through Industrial contacts	No incentives	Somewhat	Yes	Challenging	Archetype 3
Cetra Fides GmbH	Direct contact through conferences	No incentives	Yes	No	Challenging	Archetype 3

Table 10 List of companies interviewed in Switzerland

Now if the firm behavior is mapped into a 2*2 matrix where the two dimensions being

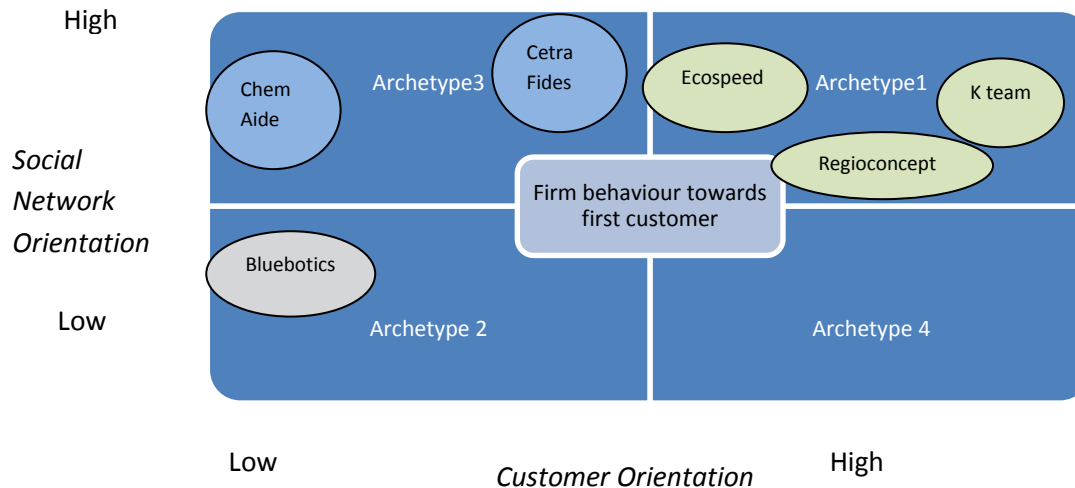


Figure 43 Mapping of model followed by companies around a 2*2 matrix

5.3.3 Sweden

The number of companies who responded to be interviewed were four, they were from bio pharmaceuticals firms to software firms. The analysis is done from the usual two point perspective

1st point of departure method of acquisition of first customer Here the number is even in terms of companies who utilized their network and the ones that directly contacted their first customer Xbrane Bioscience AB and Medfield Diagnostics AB used their industrial contacts whereas Gavagai AB and Bluetest AB used Direct contact method to contact their customer

2nd point of departure method of utilization of the first customer Again in here the situation is even, as Xbrane Bioscience AB and Medfield Diagnostics AB both offered incentives in form of Free test period and Reduced prices, whereas Gavagai AB and Bluetest AB offered nothing. In terms of feedback received from the customer everybody got something or the other except Bluetest AB

Name of Company	Mode of contact with first customer	Incentives	Feedback	Reference to second customer	Outcome of launch	Archetype
Xbrane Bioscience AB	Through Industrial contacts	Free test period	Yes	Yes	Successful Launch	Archetype 1
Gavagai AB	Direct contact	No incentives	Yes	No	Not so successful	Archetype 4
Bluetest AB	Direct Contact by customer	No incentives	No	No	Not so successful	Archetype 2
Medfield Diagnostics AB	Through Industrial contacts	Reduced prices	Yes	Yes	Successful Launch	Archetype 1

Table 11 List of companies interviewed in Sweden

Now if the firm behavior is mapped into a 2*2 matrix where the two dimensions being

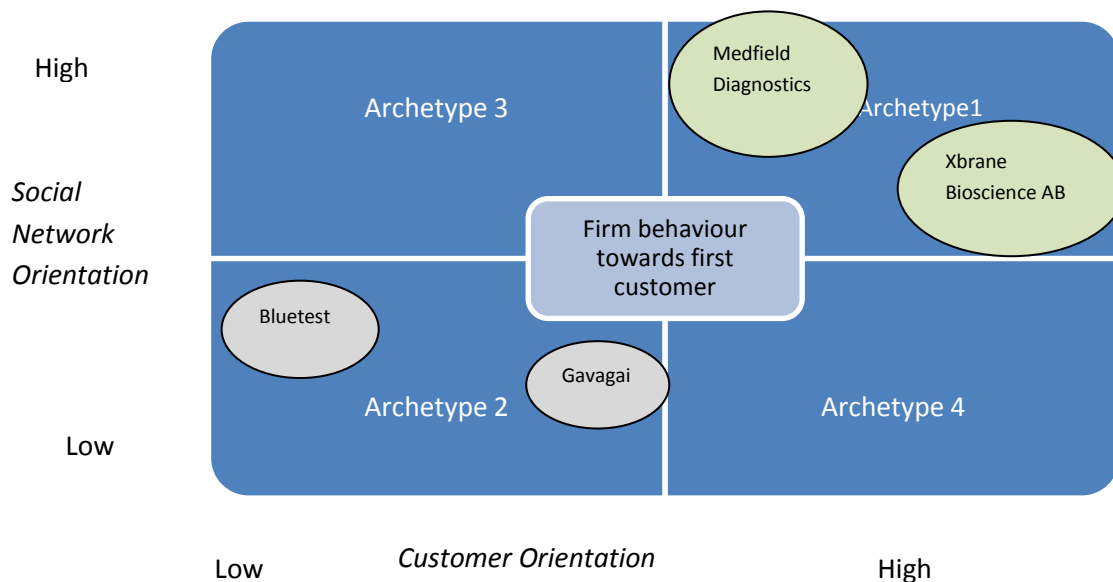


Figure 44 Mapping of the model followed by companies in Sweden around the 2*2 dimension

5.3.4 Belgium

The two companies interviewed were basically from the Leuven region and belonged to the bio pharmaceutical industry. The analysis is done from the usual two point perspective

1st point of departure method of acquisition of first customer here the two companies pose stark difference as Fugeia contacted their customers directly whereas Quelum contacted through their industrial contacts

2nd point of departure method of utilization of the first customer Here both the companies give incentives to their first customer and both of them got enough feedback from their first customer

<i>Name of Company</i>	<i>Mode of contact with first customer</i>	<i>Incentives</i>	<i>Feedback</i>	<i>Reference to second customer</i>	<i>Outcome of launch</i>	<i>Archetype</i>
Fugeia	Direct contact through conferences	Free License Agreement	Yes	No	Challenging	Archetype 4
Quelum	Through Industrial contacts	Customized developments for free	Yes	yes	Successful	Archetype 1

Table 12 List of companies interviewed in Belgium

Now if the firm behavior is mapped into a 2*2 matrix where the two dimensions being

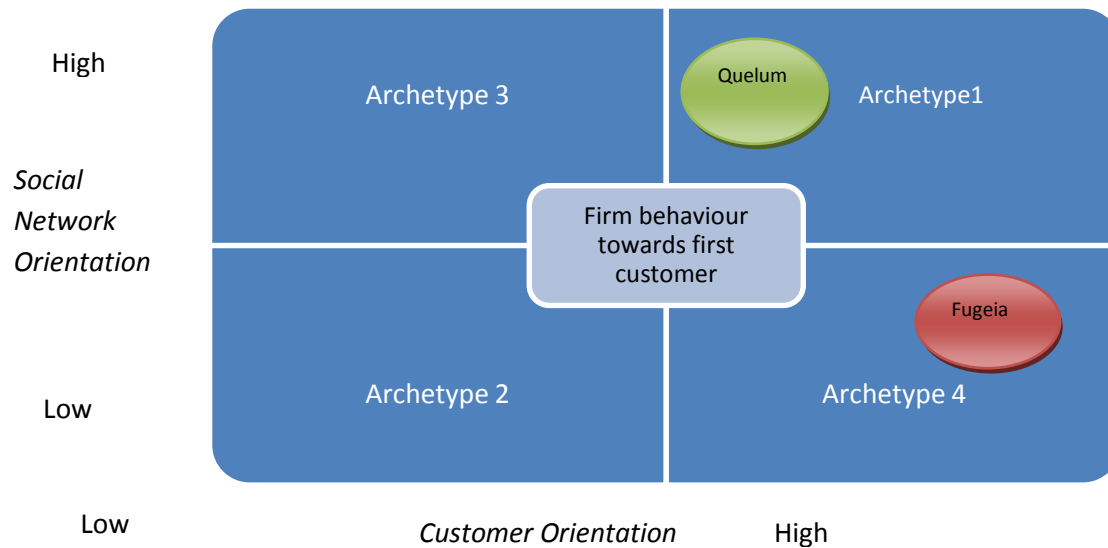


Figure 45 Mapping of the model followed by companies in 2*2 dimension in Belgium

5.4 Discussion

In this section we discuss the research findings but before we do so we also describe the shortcomings in the study and after we note the new research questions arising out of the research conducted .

5.4.1 Shortcomings of the research

The main shortcomings of the research are divided into two parts .The first part being the limitations of the research in relation to the external validity of the research methodology and the next part being the probability of biasness of the interviewees, We discuss them in details in the following section .

Now the first part is related to the shortcoming of external validity meaning the research is only limited to the European continent , as entrepreneurial orientations are always affected by cultural settings (Thomas and Muller 2000, Hayton et. al 2002, George and Zahra 2002) .Now there were no different pattern or orientation noticed among the countries used for data collection here in this

research question .As 4 different archetypes or pattern which were hypothesized before analyzing were noticed .

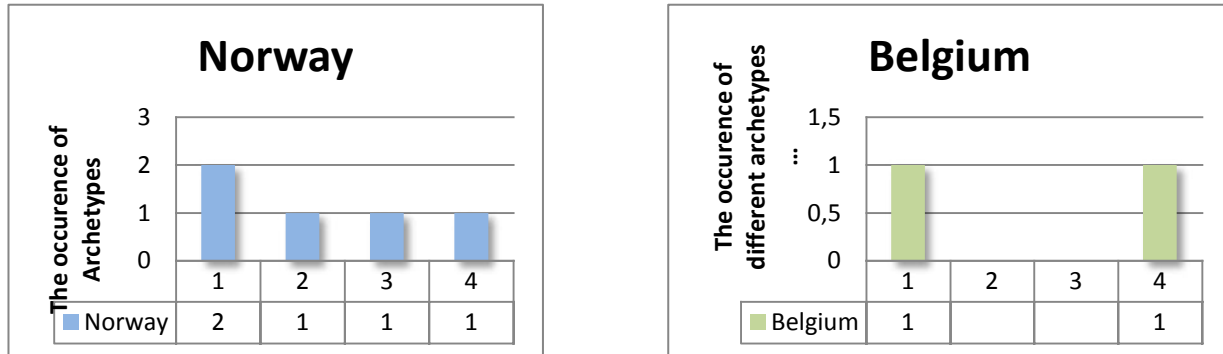


Figure 46 Occurrence of different archetypes in Norway and Belgium

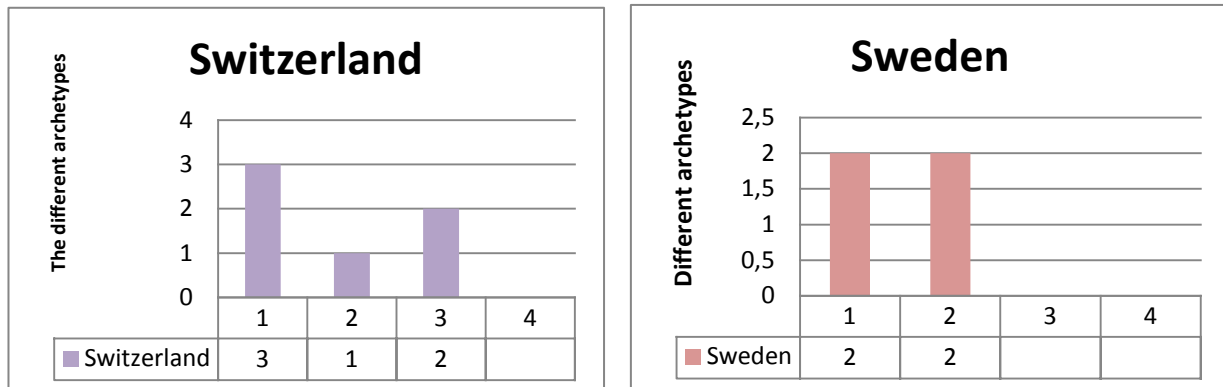


Figure 47 Occurrence of different archetypes in Switzerland and Sweden

It can be seen from the above figures that the occurrence of these archetypes is almost present in all the countries but cannot be guaranteed to be present in countries from another continent .This aspect needs to be addressed further . Also the second shortcoming being the biasness of the founders and the co founders , they would often regard their business to be successful because they are proud of their creation and believe that they have been successful ,internal validity of the research comes under scrutiny here .

5.4.2 Mapping of the research outcome with selected theory

Now if we refer back to Chapter 3 the section allotted to describe the selected theory ,we will see we put emphasis on social network perspective of entrepreneurship and also the EM perspective .In the empirical research conducted we found that out of 17 companies interviewed

Archetype Followed	Number	Social Networking Orientation	First customer orientation
Archetype 1	8	High	High
Archetype 2	1	Low	Low
Archetype 3	3	High	Low
Archetype 4	5	Low	High

Table 13 Results of different Archetypes

It can be seen the maximum number of companies follows Archetype 1 where the social network orientation is pretty high meaning the entrepreneur utilizes their networks to contact with customers .If we refer back to our **Research Question 1 which is *How did the academic spin off find the first customer?*** We have basically noticed two general modes the common one being through the help of an established network and the second one being through a direct contact with the customer and most of the first part of the theory is devoted how an entrepreneur utilizes the social network to gather resources .Though the theory cited is done in much detail only to understand the dynamism that occurs during utilization of the network .**Again If we refer to Research Question 2 and 3** which actually deals with how the spin off utilized the first customer in respect to improvisation of the customization of the first product and also being referred to

the next series of customer . We have come up with results of some companies failing to get feedback from their customers but mostly succeeding in getting continuous stream of feed backs and few being referred to second customers .We have referred to our theory in about this entrepreneurial marketing orientation and also Ruokolainen, (2008,2005) he proposes that that start up companies that uses first customer reference grows faster .He in his article says that *“Relationships are needed to find first customer reference and knowledge is needed to execute the first customer reference successfully ,the problem is how to employ the practical experience gained and verified competencies from one customer reference to the other”* .Thus second part of our study is being verified that the trust created during the interaction with the first customer with the organization helps in referring to the next customer .The customers need the trust because according to (Huth and Speth 1992) NTBF , face more perceived risk than their established competitors because the scale of the consequences if the wrong decision is made by the customer .*Thus it is assumed that a sellers credibility can reduce a buyers’ perceived risk if the start up technology can prove its capability for keeping its worth* (Huth and Speth 1992).Most of the companies irrespective of national boundaries that had picked up customers from an already established network where they had gained reputation because of their ability , competence had one foot inside from the beginning , reference can be drawn to the governance mechanism of social networks in Chapter 3 where the importance of trust has been severely highlighted .Now an mutual interactive process just strengthens the process of trust creation and helps in getting referred to the second customer

5.4.2 Conclusion

The conclusion that can be derived here is based on the following analysis is that companies following Archetype 1 have launched their product more successfully than companies following other archetypes. The reason being the trust shown by the customer at the first point of departure and the trust developed within the customer and the company during the second point of departure. Most of the founders and the co-founders have around an average of 10 years of experience and have built up their network through years of interaction with their industry counterparts and have gained valuable trust during the process, so if they are recommended as a company to any other customer it is nothing but a transfer of trust. Now during the second point of departure, trust is built up like a give and take fashion; the company offers some incentives to the first customer to attract them and the company in return gives feedback to improve the product to fit their needs, but care should be taken not to over-customize their product then it becomes very specific in terms of the first customer and becomes a very horizontal technology increasing the transaction cost. If we notice the cases of two companies Ecospeed AG and Reigoconcept AB and Bluebotics SA. In the former case Ecospeed customized too much to over-complicate the product for their first customer whereas the second case companies like Reigoconcept AB and Bluebotics SA kept the feedbacks to a general level so as not to over-complicate the product too much. Now the trust building process is described in detail below

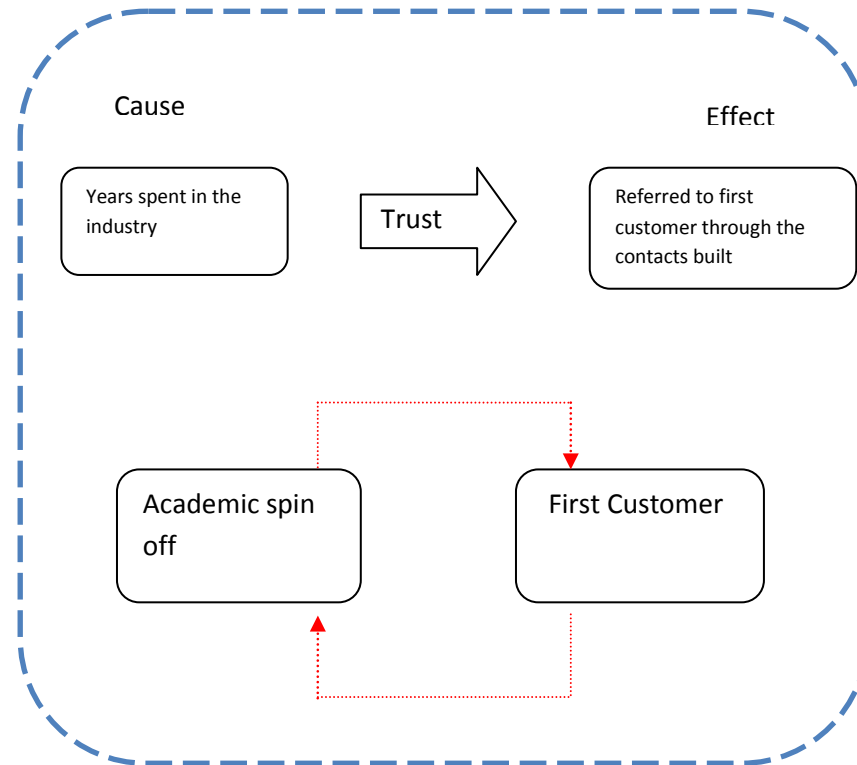


Figure 48 The process of trust creation a holistic view

Thus we can propose from here that

The more the spin offs orientation is towards social networking and their first customers the more is the chance of the company to be successful to gain critical mass, attain sufficient customers. But since the nature of work is exploratory such conclusions can only be kept in for of conclusion a firm hypothesis and its validation requires solid quantitative analysis

5.4.3 New research questions that has surfaced

The new research directions that has arisen from this research are as follows

The next research step should be *Trying to map the same research question to other continents specially Asia* to see different entrepreneurial patterns if there are any *Trying to analyze the mechanism of trust creation* between spin off company and the first customer in the second point of departure what kind of relationship it is based on mutual trust formed from mutual give and take relationship ,a detailed study of it would help would be entrepreneurs to forge a more solid an meaningful relationship with their first customer .Now here we have studied the market entry of spin off companies based out on new products , but some companies have basically radically new products and some have incrementally developed new products (products already available in the market but changes such as in efficiency , less priced etc).*Now the market entry for these two different type of products can be different* .So such studies can also be performed regarding the business models followed by companies. That can become an efficient tool for would be entrepreneurs .

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Appendix I

The Research Questions

1. Has the founder been a part of a university, another research organization ,a spinoff company ?
2. When you were developing the product did you think of the market areas your product will appeal to
3. Was your product a radically new product that did not have an existing market ?
4. Did you do a market research before launching your product ,did you do it by yourself or did you hire anybody else ?
5. How did you find your first customer?
6. When you found your first customer did you attract your customer by providing special incentives?
7. After you got your first customer how much of feedback did you get about your product from your customer?
8. How did you utilize those feedback inputs to customize your product according to the needs of your customer?
9. Do you believe you got enough feedback from your first customer ,so that you had to do less customization for your second customer ?
10. Did your first customer refer to your second customer?
11. So by following the above methodology do you think your product has had a successful launch in the market?

Appendix II

Body of Letter sent

Hi ,

I am a student of M.Sc in Project Management under the department of Industrial Economics and Technology Management at Norwegian University of Science and Technology .I am doing doing my master thesis in the following subject "How Academic spin offs acquire their first customer ".For that purpose I want to do a short interview about your company X.

Your inputs will definitely help me to improve the quality of my research .Thanks a lot for your time

Best Regards

Swarnava Mitra