

**THE REPUBLIC OF TURKEY
BAHÇEŞEHİR UNIVERSITY**

**HOW STARTUPS SUCCEED?
ANALYZING TURKISH STARTUPS
BASED ON THEIR LIFECYCLE STAGES**

Master's Thesis

LATİF ÇAKIROĞLU

İSTANBUL, 2017

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Name/Last Name of the Student: Latif Çakıroğlu

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The thesis has been approved by the Graduate School of Social Sciences.

Assist. Prof. Dr. Burak KÜNTAY
Graduate School Director
Signature

I certify that this thesis meets all the requirements as a thesis for the degree of Master of Arts.

Assoc. Prof. Dr. Ela ÜNLER
Program Coordinator
Signature

This is to certify that we have read this thesis and we find it fully adequate in scope, quality and content, as a thesis for the degree of Master of Arts.

Examining Committee Members

Signature

Thesis Supervisor
Assoc. Prof. Dr. N. Öykü İYİGÜN

Member
Dr. Selçuk TUZCUOĞLU

Member
Assist. Prof. Dr. Gül Selin ERBEN

ABSTRACT

HOW STARTUPS SUCCEED? ANALYZING TURKISH STARTUPS BASED ON THEIR LIFECYCLE STAGES

Latif akırođlu

MBA

Thesis Supervisor: Assoc. Prof. Dr. N. Öykü İyigün

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Startups create value for countries' economic growth in both financial and employment field. Many startups rise and fall every year around the world. Startups try to find new ways to create their own existence, survive and growth in the market by trying various methods during the suffering journey. In searching commonly used methods and their positive affects for success of startups, this research is focused to discover how Turkish startups succeeded and what shared approaches they used during startups' lifecycle stages to overcome faced challenges.

Gathered data which is provided by Turkish startups co-founders during in-depth interviews, analyzed with qualitative approach and discoveries are presented based on lifecycles of startups. Turkish startups' co-founders dedicate themselves accepting suffering and hardworking in mind, apply innovative ways for every stage's specific needs. Startups uses innovation in the core of product, running business and reaching target customer segment. Following cost-effectiveness and monitoring operational and financial metrics common applications among startups to respond actively to the market. Ability of self-motivation, communication skills and creating funding by getting believers around let them establish, survive and grow their businesses.

Keywords: Turkish startups, success, startup lifecycle, growth metrics.

ÖZET

GİRİŞİMLER NASIL BAŞARIYOR? TÜRK GİRİŞİMLERİNİN YAŞAM DÖNGÜLERİNE DAYANARAK ANALİZ EDİLMESİ

Latif Çakıroğlu

Genel İşletmecilik

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Girişimler, ülkelerin ekonomik gelişimleri için hem finansal hem de iş verme alanlarında değer yaratıyorlar. Her yıl dünya genelinde girişimler yükseliyorlar ve yok oluyorlar. Girişimler bu çileli yolculukta piyasadaki varlıklarını oluşturmak, hayatta kalmak ve büyümek için farklı yöntemlerle yeni yollar bulmayı deniyorlar. Girişimlerin başarısında pozitif katkı yaratan, çoğunlukla kullanılan yöntemlerin arayışında, bu araştırma Türk girişimlerinin nasıl başardığına ve yaşam döngüleri boyunca karşılaştıkları meydan okumaları aşmada hangi ortak yaklaşımları uyguladıklarını keşfetmeye odaklanmıştır.

Derinlemesine röportajlar aracılığıyla Türk girişimlerinin kurucu ortakları tarafından sağlanan veriler, nitel araştırma yaklaşımıyla analiz edilmiş ve keşifler girişimleri yaşam döngülerine dayalı olarak sunulmuştur. Türk girişimlerinin kurucu ortakları kendilerini acılı ve çok çalışma durumunu kabullenmeye adanarak, her döngünün kendine has gereklilikleri için yenilikçi yollar uyguluyorlar. Girişimciler yenilikçiliği ürünün özünde, işi yürütmede ve hedef müşteri kitlelerine ulaşmada kullanıyorlar. Maliyet verimliliğini, operasyon metriklerini ve finansal metrikleri izlemek, piyasaya aktif olarak cevap verebilmek için girişimler arasında yaygın olarak izleniyor. Kendi kendini motive edebilme yeteneği, iletişim becerileri ve etraflarında kendilerine inananları toplayıp fon yaratabilmeleri, işi kurmalarına, hayatta kalmasına ve büyütmelerine izin veriyor.

Anahtar Kelimeler: Türk girişimleri, başarı, girişim yaşam döngüleri, büyüme göstergeleri

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ABBREVIATIONS

AARRR	:	Acquisition, Activation, Retention, Revenue, Referral
B2B	:	Business to Business
B2C	:	Business to Customer
C2C	:	Customer to Customer
CEO	:	Chief Executive Officer
CLV	:	Customer Lifetime Value
CPA	:	Customer Profitability Analysis
GEM	:	Global Entrepreneurship Monitor
HEA	:	High-expectation Entrepreneurship Activity
İTÜ	:	Istanbul Technical University
KOSGEB	:	Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı
MA	:	Management Accounting
MVP	:	Minimum Viable Product
NEA	:	Necessity Entrepreneurship Activity
OEA	:	Opportunity Entrepreneurship Activity
PBX	:	Private Branch Exchange
PMS	:	Performance Measurement System
R&D	:	Research and Development
SaaS	:	Software as a Service
SME	:	Small and Medium Enterprises
NPS	:	Net Promoter Score
PMS	:	Performance Measurement System
SME	:	Small and Medium Enterprises
TÜBİTAK	:	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu
TÜİK	:	Türkiye İstatistik Kurumu

1. INTRODUCTION

With the help of technology and sophisticated global services, creating new ventures and entering markets are getting easier. Many startups rise and most of them fall every year. This volatility in market get attention of many researchers. Although main questions about these field are “Why most startup attempts fail?” and “How successful one’s came this way?”, researchers also try to understand if entrepreneurship good for economic development. There are attempts to find repeating patterns and paths for creating successful ventures, based on certain limitations.

In this research literature examined in subjects of entrepreneurship and economic relations, how researchers define success, methods for economical survival, relation between innovativeness and survival, how founders’ general and entrepreneurship related education and experiences effects success, what lifecycles that startups get through and what performance metrics are used by entrepreneurs. In addition to general literature, Turkish ecosystem examined by global and local statistical reports. This research aimed to find how Turkish startups succeeded and in order to find data, founders surveyed by open ended questions in in-depth interviews. Qualitative methodology chosen mainly to reveal differences between global repetitive patterns and local excitability of them for being successful. This subject selected to provide contribution on relatively rare studied Turkish startup ecosystem.

2. LITERATURE REVIEW

2.1 DEFINITION OF ENTREPRENEURSHIP

Origin of entrepreneurship word comes from a French word that means “to undertake” (Ahmad and Seymour 2008). Entrepreneurship concept considered differently through time and scholars have developed various definitions of entrepreneur. First, Schumpeter (1934) has defined entrepreneurs as “innovators who follow a path that breaks the ongoing status of existing products/services”. The corporate literature on entrepreneurship has been greatly affected by this definition (Warnecke 2013). Gartner (1985) attempted to find differences in personality and background between entrepreneurs and non-entrepreneurs and defined entrepreneurship as the “creation of a new organization”. The main difference between entrepreneurs and non-entrepreneurs is the entrepreneurs' socio-cultural, economic, political and educational backgrounds. Entrepreneurs' unique background influences their motivation, aim and creativity (Lee et al. 2005). Others consider entrepreneurship “as a way of thinking or acting” - being creative, innovative, risk-taking, or resilient (Foss and Klein 2012, p. 220).

Although different approaches make entrepreneurship concept “fuzzy”, definition of startup term also has different versions depending on changes in entrepreneurs acts and their interests. While Blank (2013) defining startup as a temporary organization which searches for scalable, repeatable and profitable model, Ries (2011) also focuses on company's products or services to be innovative and their creation atmosphere being in an extreme uncertainty. Entrepreneurs are unique in relation to the past (Ashoka U and The Algernon Sydney Sullivan Foundation 2012). Entrepreneurship is an important resource to develop new visions and management methods for existing companies and newcomers (Carnier 1996). In this manner, business enterprise can be connected to a wide range of associations including non-benefit organizations (Lee et al. 2005). Entrepreneurs who are vital for small and medium-sized organizations, as well as founders, producers, reproducers and converters of an enterprise with its own standards and values. (Yetim and Yetim 2006).

2.2 HOW ENTREPRENEURSHIP AFFECTS ECONOMIC GROWTH?

Theoretical literature suggests that entrepreneurs may contribute to growth through a diverse range of behaviors, including innovation, combination of resources and increased competitive pressures (Özdemir and Karadeniz 2011). The hypothetical relationship between entrepreneurship and economic growth, and the relationship between new job creation and growth with experimental evidence has shown in the study of Wong et al. (2005). The relationship between entrepreneurship and economic growth can not be fully established because of misuse of innovation and new initiatives that have been produced by duplicating another initiative (Minniti and Levesque 2006).

It becomes crucial to understand the determinants of entrepreneurial activities that is found, to boost up the economy (Wennekers and Thurik 1999). Entrepreneurs play an important role in seizing opportunities for investment in different regions and coordinating physical inputs into production. Regional entrepreneurial capital, measured by the rate of entrepreneurship is therefore an important determinant of regional economic performance. Entrepreneurship rate is defined as the effect of economic success on individual abundance, company profit rate and economic growth on individual, corporate and social based (Wennekers et al. 2002).

Some researchers separate between demand and supply sides of entrepreneurship (Audretsch et al. 2002). The resources available to establish a business express the demand part of entrepreneurship, while the preferences, skills and resources that are imposed on the individuals in society refer to the supply part. Wong et al. (2005) refer to these as both a “Schumpeter” effect and a “refugee” effect, and reflect this in their empirical design by employing subcategories of entrepreneurship defined in the Global Entrepreneurship Monitor dataset. The Global Entrepreneurship Monitor (GEM) defines themselves as “the world’s foremost study of entrepreneurship”. They have 17 years of data from more than 100 countries. In each economy GEM looks at the entrepreneurial behavior and attitudes of individuals and the national context and how that impacts entrepreneurship.

GEM, which identified three main motives and motivations for individuals to be

entrepreneurs, also measures three independent indexes to determine the extent of national entrepreneurship (Minniti et al. 2005).

- a. High-expectation Entrepreneurship Activity (HEA): High-expectation entrepreneurship has been defined by GEM as start-up entrepreneurs with a maximum of 42 months old and who aim to reach 20 employees in 5 years 9.8 percent of entrepreneurs in the world want to create 75 percent of jobs (Autio 2005). These ventures can also be characterized by their smaller size, higher availability of idle resources and lower availability of financial resources (Moreno and Casillas 2007).
- b. Opportunity Entrepreneurship Activity (OEA): These entrepreneurs are defined as individuals who get job opportunities and start to work as a career option. (Sternberg and Wennekers 2005). The entrepreneurs included in this definition include HEA entrepreneurs but they are better at capturing opportunities differently from them and there is no high-growth expectation like HEA entrepreneurs in this group. Relative to the HEA entrepreneurs, these individuals expect to achieve much lower growth rates, either due to perceived environmental constraints or to limited objectives or motivations on the part of the entrepreneurs.
- c. Necessity Entrepreneurship Activity (NEA): Individuals see entrepreneurship as their last chance and start a business because all other work options are either non-existent or unsatisfactory (Minniti et al. 2005). The importance of “informal” necessity entrepreneurs has been extensively described by De Soto (1989).

When GEM reports are examined, while high-expecting entrepreneurs in developed countries are positively related to economic growth, it appears that these countries do not have a contribution from opportunity-based or necessity-based entrepreneurs, as well as there is an important difference in the factors affecting economic growth between developing countries and developed countries (Valliere and Peterson 2009).

The contribution of small and medium-sized entrepreneurs to economic growth, which accounts for more than 99.8 percent of total entrepreneurs in the manufacturing sector in

Turkey, is so important that it can not be disregarded. (Bayhan and Özdemir 2009).

2.3 SUCCESS DEFINITION AND DETERMINANTS

There are many studies that aim to identify success determinants of new firms (Nerlinger 1998, Van Praag 1996, Wever 1984). When these studies examined, their outcomes are not straightforward. Many explanatory determinants handled but different authors end up with different results. For this reason, drawing general results is not easy. Researchers focus on many different variables. Although they use similar factors, they focus differently. Some use only new entrepreneurs, some concentrate on specific business areas. Origins of the firms are also creating differences. Concept of “success” perceived in very different ways (Schutjens and Wever 2000).

Frequently used new venture success factors are profit, return on investment or a major income generating for entrepreneur. These factors are highly attached with accounting data. When it comes to evaluate new firms, using accounting data is hard to find due to nature of the startups. There are also other indicators such as added value, the growth of turnover or number of employee (Schutjens and Wever 2000).

Success is very important for companies to stay in business life (Van Praag 1999). The first success of a firm is its birth. Significant amounts of creating new business also fail. The person undertaking activities to create business is described as nascent entrepreneur, and founding effort is called nascent entrepreneurship (Reynolds and White 1992). There are few studies in this area, maybe the important reason is lack of sample, because nascent entrepreneurs are not registered, which makes them hard to compare to small business owners (Reynolds 1987).

Generally, the success studies used two dimensional performance model: success versus failure (Lussier and Halabi 2010). As mentioned before, predictors of performance vary depend on the researchers’ focus, more specifically whether they use two leveled or multileveled performance (Dahlgqvist et al. 2000, Cooper et al. 1994). There is also scarce of study which use multileveled performance. The study of Cooper et al. (1994) uses

non-accounting data and divides performance into three main outcomes: failure, marginal survival and high growth. They explore factors including human capital and financial capital variables with using industry that firms operate as control variable. Bosma et al. (2004) studies how human and social capital factors affect startup performance in terms of survival, profit and generated employment.

There is no such a thing that every entrepreneur starts in same way. There are many type of entrepreneurs and many different business activities. Some start working full-time in new venture with pre-orders, some entrepreneurs start with holding a full-time job and seek opportunities more securely. According to Cooper (1982) the efficiencies and deficiencies of the starters are themselves the efficiencies and deficiencies of the company. As Schutjens and Wever (2000) come to the conclusion that there are three main determinants of success: The Importance of work experience, business partner and preparation.

2.4 LIFECYCLE

Lifecycle is an important characteristic of a system. The cycle of life describes above all the length of life and dynamics of power changes in the course of life (Pawliczek 2015). Important parameters of system can be described as its size, energy, activity and success. Rapidly rise after birth and growing until reaching to the maturity. Existence remains while vital parameters sustained in a balance. When balance is broken, system existence starts to end up and its components dissemble into new system. Lifecycle can be also described by Gaussian-like curve. Lifecycle term can be used related to product, service, project, management, employee, economy, enterprise and many more concept (Pawliczek 2015).

Miller and Friesen (1984) describe enterprise lifecycle as mutual development of revenue and expense in five phases:

- i) Establishment (start up): In this phase, there are only expenses, company consumes investment

- ii) Growth: Company still in loss and there are more expenses than revenues
- iii) Stabilization (Maturity): Company makes profit, there are more revenue than expenses
- iv) Crisis: Company starts to loose money because of reduced income that fail to cover expenses.
- v) Termination: Company could not find a way to cover the expenses and crisis continues, therefore business closed.

In literature many scholars label these phases differently, but logic generally stays same as generic cycle. The length and sub-stages of phases can be different depending on the focused context with respect to economic approach, environment, innovation activity or any other factors considered (Pawliczek 2015).

2.4.1 Customer Development Model

Structural testing, and feedback from customers to reality, Blank (2013) has created customer development model that is transforms business model hypotheses by structured process. Failure is adopted in this model because it is the best method to learn and develop the business model (Blank 2013).

In the customer development model, each step is represented as a circular track with a recursive arrow in order to highlight that startup development includes failure and often moving backward in order to test something again. Every step is organized according to the Build-Measure-Learn-Loop. In a traditional product introduction plan moving backward is not acceptable. This leads to moving forward in the production process without having got the business model right. Customer Discovery, Customer Validation, Customer Creation and Company Building are the stages of startup. The” escape velocity” is required to pass the next step in a startup. A startup can escape velocity when it has “enough measureable progress in finding the business model as defined by board and team” (Blank 2013).

i) Customer Discovery

Customer discovery is the first phase of customer development process. Founders of

startup should produce some hypothesis about their vision of business model for every component of business. After that they also try to find ways to examine or test these hypotheses with in real life. Blank and Dorf (2012) pointed out that it is important for founders to get early feedback from potential customers, gain vision and test their hypotheses. Generated scenarios should be testable and swiftly controllable. When founders believe they achieved to produce testable hypotheses enough to cover their business model, process moves into second stage, validating by customer. These test should include minimum viable product (MVP). There is no such a thing that MVP should be same for every business. MVP could be sometimes presentation that give customer insight about product's value proposition or maybe product that includes basic core features, depending on the business model. In this phase, used MVPs are called low-fidelity MVPs (Blank and Dorf (2012)).

ii) Customer Validation

Customer validation is the second phase of the customer development process and this step includes many numbers of quantitative and qualitative researches. These researches aim to find out whether founders' visions met with the market. This concept described as product-market fit. Product-market fit proves that business has a repeatable and also scalable model that has enough volume of customer to build a profitable company (Blank and Dorf 2012). During this phase founders use high-fidelity MVPs to validate customers by testing company's ability to scale and gaining customers. High-fidelity MVP can be described as actual product that focuses on unique value proposition and should provide enough features to customer usage even some may still not developed. High-fidelity MVPs are used for testing customers' willingness to pay and other hypotheses about the product while able to keep development costs and burn rates low .

iii) Customer Creation

In this stage, founders try to scale their sales and gain as many profitable customers as possible. Sales spending and heavy marketing should lead to high growth and success. To reduce risks and getting the necessary funding to scale healthy, customer segments and all details of business model needed to be validated in customer creation phase.

iv) Company Building

When a startup fully capable of executing the business model, it becomes company. Structured organization is needed to achieve scale and cope with sales. According to Blank (2013) when startup achieve to get this phase, founders may not be the right people lead the company. In order to grow steadily and structure the departments, executives hired.

Each step has its unique way to execute. Once there is a problem with the hypotheses or results from the continuous test, founders should go previous or maybe the first stage to re-identify business model and testing. In customer development model, participants are expected to fail and learn from their failure. Failure is not a bad thing and also a very good resource of learning. Cheating for passing stages or not being prepared as if needed could end up premature growth, risking more than needed and waste of many resources.

2.4.2 Marmer Stages

Marmer et al. (2011) provided an extensive report on startups' performance called Startup Genome Report. In their report six distinct stages defined as discovery, validation, efficiency, scale, profit maximization and renewal or decline. Report covers first 4 stages and makes definitions of them. In discovery stage startups are focused on validating whether they are solving a meaningful problem or pain point that anybody will be interested to be customer for. In this stage founding team gets together, creates value proposition, they do customer interviews and MVPs. Team joins incubator or accelerator and usually fund by family and friends. Stage usually takes 5 to 7 months.

Validation stage purpose is finding paying customers for early validation of business model. Team refines core features of the product and get initial user growth. Founders seek for product-market fit and observe analytics metrics, if necessary they make changes in business model and try to get seed funding. This phase takes 3 to 5 months.

Efficiency phase includes refining business model and improve customer acquisition process. In order to achieve growth without leaky budget, startups should be able to acquire customer efficiently by doing conversion funnel optimization, repeatable sales process, gathering new channels. This time takes 5 to 6 month on average.

Scale stage aim to grow aggressively. Startups usually get funded by large investment rounds to acquire massive customer base. Executive hires starts to implement and establish departments. This stage usually takes 7 to 9 months.

2.5 BOOTSTRAPPING

Bootstrapping has many definitions in literature but there is an understanding on that bootstrapping is a collection of methods for minimizing the amount of outside debt and equity financing needed from banks and investors (Winborg and Landstrom 2001, Harrison and Mason 1997). Looking at the definition combination of methods could be anything which leads reduce overall capital necessity, improve cash flow, taking advantage of personal resources of financing. Due to lack of available public information which lead information asymmetries, financing sources view small firms as risky investment and offer limited amount of money at higher price (Shane and Cable 2002). It has been seen that it is difficult and expensive to increase capital from banks and investors for small and new venture firms, that can be found by the financial and economic literature on new or small enterprises is examined within the scope of capital constraints. (Berger and Udell 1995, Rajan and Zingales 1995, Stiglitz and Weiss 1981). Bootstrapping is a requirement for small companies because it helps to eliminate the difficulties of obtaining external debt and equity capital. This approach contradicts the pecking order model, which suggests that internal financing schemes should be searched at the beginning (Myers 1984). Many entrepreneurs start with limited capital, which is the capital acquired from their own savings or close proximity, and therefore has to bootstrap their venture to thrive. (Smith and Smith 1998).

Indeed, Bhidé (1992, p.110) suggests that the biggest challenge for entrepreneurs is not raising money, but “having the wits and hustle to do without it”. Timmons (1999, p. 37) states that “bootstrapping is a way of life in entrepreneurial companies”.

Winborg and Landstrom (2001) having started working on bootstrapping methods with a sample company and found 32 commonly used bootstrap methods which are tested them

in 262 firms and reduced this number to 25 as a result of experimental work. These 25 techniques are grouped according to 6 categories of preloads. (1) owner-provided financing and resources, (2) accounts receivable management methods, (3) sharing or borrowing of resources from other firms, (4) delaying payments, (5) minimization of resources invested in stock through formal routines, and (6) use of government subsidies. Getting research grants, making customer funded research and development, turning a consulting project into a commercial product, using public development tools, special deals of accessing to the hardware could be listed under the product development related methods.

Delaying payments, making barter arrangements, using personal credit cards, getting discounted advance payment from customers, renting below market space, leasing assets, purchasing used equipment are also can be listed as business development related techniques.

Based on Winborg and Landstrom (2001) findings, four types of bootstrap methods can be identified for small companies. These are; customer-related methods, delaying payments, owner-related financing and resources, and joint-utilization of resources with other firms.

2.5.1 Customer-based and Delaying-payment Methods

Ebben, and Johnson (2006) stated that as enterprises lack of reputation due to its early days, it is hard to convince customers pay before they are satisfied with their purchases. As a firm's reputation develops, customers should be more comfortable with shorter payment terms or other stipulations such as interest on late payments (Ebben and Johnson 2006). Long et al. (1993) found evidence to support this theory, concluding that smaller firms with less-established reputations tend to offer relatively more credit than larger firms with more established reputations. Therefore, small firms should be forced into providing credit terms early on, but this should decrease over time as customer relationships and firm reputation develop. It can be deduced from the resultant resource dependence theory that customer-based and delaying-payments methods can show rise over time. Becoming important for customers as a company can provide comfort to the

company about payments and using some systems like accelerate the billing process with prepayment incentives to cope with customer and supplier constraints (Ebben and Johnson 2006).

The default of the payment threat is high and the difficulty of getting supplier credit may be related to the little record of loan payments of companies. (Aaronson et al. 2004, Vandenberg 2003, Ng et al. 1999). Such companies can not afford to negotiate early payments and interest penalties. (Ng et al. 1999). Vandenberg (2003) noted that there is a positive relationship between access to trade credit and company size, and so small firms will gain credibility of suppliers with a clean credit history over time.

2.5.2 Owner Related Methods

Owner related methods are highly related with founders personal saving and personal credits which taken for granting some cash into firm. Reduction of owner-related bootstrapping methods' usage should start when the companies can obtain to further sources such as customers, suppliers, banks and investors. Most of the studies examining the early entrepreneurship period have focused on personal characteristics and in a large number have come to the conclusion that entrepreneurs do not want to take risks. (Cooper et al. 1988, Brockhaus 1980). Small business owners with a certain financing do not want to risk these situations with credit card debt or foregone salary. Especially if the money in their hands is provided from their immediate surroundings, such as family and friends, the risks they face are reduced (Ebben and Johnson 2006).

2.5.3 Joint-utilization Methods

Joint utilization of equipment allows to use it without noticing the cost of the equipment. In addition, when using this equipment, it can establish a partnership relationship with a company and gain credibility. It could be also having asset with partner firms to use mutually, it could be hardware, office space, development tools, or even sharing employees. In the case of resource dependency theory small companies need to reduce their joint resource utilization rates with other companies as they progress and access to other resources increases. Empirical evidence demonstrates this notion as Vandenberg

(2003) found that the practice of buying supplies in collaboration with other small firms to take advantage of bulk purchasing discounts was inversely related to firm size.

2.6 INNOVATIVENESS EFFECT

Innovativeness means tending to innovate, introducing something new or different. Many theoretical arguments suggest positive relation between innovativeness and firms' survival. Schumpeter (1934) states that, innovativeness makes firm more powerful in term of market power. By the help of innovativeness companies can differentiate their service and products, so they can position themselves by escaping competition. Innovativeness also can reduce production costs (Cohen and Klepper 1996). However, there are also many arguments that the link between survival and innovativeness may be negative. Innovativeness needs time and financial resource allocation to move on. Pursuing innovativeness could lead a startup to riskier and more complicated environment (Samuelsson and Davidsson 2009). Entrepreneurs who believe that they are exceptionally innovative may have a particular exit strategy in mind (DeTienne et al. 2015) and may, as a result, seek to increase the firm's risk profile to achieve the desired exit.

Younger firms have no defined routines or slow processes. They can adapt more quickly and act swiftly with respect to firms that have complicated department routines. This swift approach makes innovativeness beneficial for younger firms thanks to their non rigid routines (Brüderl and Schüssler 1990, Freeman et al. 1983). Hyytinen et al. (2015) states that, "the interaction of innovativeness and entrepreneurs' higher appetite for risk further reduces the survival prospects of their startups." Cefis and Marsili (2012) also states "the ability of a firm to innovate is an important determinant of its exit decision. We find that firms that have innovated are less likely to be forced to close down their activities."

2.7 ENTREPRENEURSHIP EDUCATION

As a result of field studies, two concern areas were found, one of which is that the research tends to overcome the theoretical studies (Henry et al. 2005). On the other hand, there was a prejudice against the researches carried out temporarily while the theoretical base

was under development. The main issues, which the field needs to address, originate from the quantity of issues to be investigated, and in addition the differing scope of controls from which these issues may be inspected. The consequence of this is every specialty sees entrepreneurship from its own particular point of view without adopting cognizance of strategies in different specialty (Henry et al. 2005). As a discipline, there is increasing apprehension that entrepreneurship is divided among experts who make little use of their work (Ucbasaran and Westhead 2001). Consequently, while a large assemblage of information has been created, a few observers are concerned that this has not really been aggregate.

Henry et al. 2005 accepted that the educational needs of entrepreneurs may change at various phases of advancement. One of the classifications acknowledged by Gorman et al. (1997) was the objective market for every course or program, while directing examination in the entrepreneurship literature. Actually, the use of audience segmentation may be expected to change based on the underlying assumption, educational objectives, topic and academic approach to the target audience (Gorman et al. 1997). Development stages such as knowledge, pre startup, startup, growth and maturity will affect the educational needs of the person (Bridge et al. 1998, O’Gorman and Cunningham 1997, Van der Sijde et al. 1997, Monroy 1995, McMullan and Long 1987). Attracting regard for the way that the phase of advancement of an individual, or his/her business, may have an effect upon the way of entrepreneurial instruction that may be gotten it gives a chance to teachers and educators to enhance the entrepreneurial learning process (Henry et al. 2005).

The progress of new venture development has been a focal research topic in the field of entrepreneurship (Brush et al. 2008, Aldrich 1999, Low and Abrahamson 1997, Stearns and Hills 1996). New entrepreneurs must find various ways to come up with the challenges they may face, knowing that many initiatives have failed in the beginning (Kirchhoff 1994). These contain building up the business environment, making juristical adjustment, evolving new organizational procedure, and defining business strategy (Aldrich 1999, Stinchcombe 1965).

In order to expedite the growth of start-up entrepreneurs, it has been noted that it is useful to examine the successes or failures previously learned by the founders (Oe and Mitsunashi 2013). In this way, information on successful launches and solutions of problems will be obtained. (Beckman et al. 2007, Chandler et al. 2005). This connection has been verified some researches however not in others. As a result of the research conducted with 48 Korean new entrepreneurs, it was seen that those who had previously experienced a similar field were more profitable (Jo and Lee 1996). Another result is that the previous management and organizational experience does not affect profitability or sales success Davidsson and Honig (2003). It is seen that current experience does not affect income except for a few exceptional examples in high technology (Newbert 2005). Tornikoski and Newbert (2007) found complicated results. It is seen that the effect on the new entrepreneurship of the founders' experiences is important. However, the founders' training levels and work experience had no effect on the initial stage.

Entrepreneurial aims may be affected by college education in two ways. First, it is related to taking an entrepreneurship course in college (Oe and Mitsunashi 2013). Kolvereid and Moen (1997) indicated that during the period of college education, students who study entrepreneurship mainstream or entrepreneurship courses are more likely to be entrepreneurs than students who do not. They also stated that entrepreneurship courses did not only make entrepreneurial aims but also could bolster or frustrate the arrangement or acknowledgment of aims. Some of the people who took entrepreneurship courses in university have built up their organization and its ratio is 40 percent (Upton et al. 1995) and it is indicated that in Malaysia they have a higher motive to become entrepreneurs (Cheng et al. 2009).

The second way, it is important whether or not to encourage entrepreneurship in the educational system of university (Şeşen and Pruett 2014). Franke and Lüthje (2004) pointed out that the students who evaluate positively in this university environment are more entrepreneurs than the ones who find negative and inadequate in this direction. Similarly, Schwarz et al. (2009) pointed out that the educational environment is a powerful influence on the desire to become an entrepreneur. The effects of entrepreneurship trainings on desire to become entrepreneurs have been examined for

three countries by Packham et al. (2010). As a result of this study, it was found that this training had positive effects in France and Poland, but it was found to have negative effects on German male students.

On the other hand, developments in Turkish educational system to promote entrepreneurship are inadequate (Şeşen and Pruett 2014). Entrepreneurship courses are offered in some universities with business departments, while the other part of the students are graduating without taking any entrepreneurship courses (Patir and Karahan 2010). Only a few Turkish universities have entrepreneurship research centers (Ertuna and Gurel, 2011). Entrepreneurship courses at Turkish universities include business plans, basic tools of entrepreneurship, and basic knowledge of entrepreneurship, but the entrepreneurship syllabus does not include innovation, entrepreneurial typologies and examples (Gurol et al 2008). In addition, Gurol and Atsan (2006) pointed out that higher education institutions in Turkey can not sufficiently understand the entrepreneurial potential of young people of this country. It is mentioned in a GEM report; there is a positive pattern in primary and secondary education about business enterprise in Turkey, when the quality and amount of college level is inadequate (Karadeniz 2010). Hence, generally entrepreneurial activities are necessity-driven in Turkey.

2.8 ENTREPRENEURSHIP EXPERIENCE

The impact of training on performance can be explained by the fact that the information gained can be used to improve the managerial capacity to develop a superior business or to develop a industry-specific strategy so that resources can be used more efficiently, costs can be reduced and revenues increase and consequently performance improves (West and Noel 2009, Kim et al. 2006, Honig 1998). As indicated by human capital theory, instruction may cultivate either particular or general aptitudes skills (Reuber and Fischer 1999, Szilagyi and Schweiger 1984). Education is categorized as industry-specific knowledge and general business knowledge (Soriano and Castrogiovanni 2012). Soriano and Castrogiovanni (2012) have examined the impact on enterprise performance of two different forms of education.

2.8.1 Industry-specific Knowledge

Industry-specific skills, which can be learned through formal education or courses, can be developed with technology, industry-related processes or products. Administrative skills can be developed with these skills to create a business and technical plan (Haber and Reichel 2005). These skills enable chief executive officers (CEOs) to effectively identify markets, opportunities and customer needs by contributing to the ability to identify opportunities and learn from business communities, thereby reducing costs and improving the company's performance (Florin et al. 2003, Castrogiovanni 1996, Dyke et al. 1992).

Industry-specific knowledge can be defined as training received by those who wish to obtain more detailed and technical information specific to that sector, as well as general information about the characteristics of products or processes in a sector (Soriano and Castrogiovanni 2012). This type of information can be obtained from institutes and centers such as the Chambers of Commerce, Trade Unions and Trade Organizations, which are common in the European Union. Industry-specific knowledge which is considered to have contributed positively to SMEs (Small and Medium Enterprises) performance and is believed to be a positive impact on productivity and profitability, may be obtained before or after the startup of an enterprise (Castrogiovanni 1996).

2.8.2 General Business Knowledge

General business knowledge, which is an education that can be acquired in university education and business schools, is a form of human capital that promotes management on an enterprise or activity on a specific project. General business knowledge may be obtained before or after the startup of a business. CEO-owner's general information will help them make fewer mistakes during startup or at startup, so they will have ideas on how to find solutions to problems they may encounter during execution (Soriano and Castrogiovanni 2012). Mintzberg (2004) has stated that abstract concepts can not be fully understood without being concrete to experience, and therefore how to managed can not be learned without experience. It is thought that the CEO-owners who continue their education after the start-up education will have a wider vision compared to those who have completed their education and started to work life, and it can be concluded that post-startup education is very useful here (Soriano and Castrogiovanni 2012).

2.8.3 General Experience

The experience of a company's CEO or owner in his working life is just as important as the information gained in his / her education life (Kim et al. 2006). Experience has been defined by Castrogiovanni (1996) as the knowledge and skills gained by examining SME-like firms and their problems which are encountered by the CEO-owner. They noted that these experiences have influenced SME performance by enabling CEO-owners to better evaluate opportunities and use resources effectively. The skills acquired through experience can not be acquired in a teaching center (Castrogiovanni 1996).

2.8.4 Inner Circle

The immediate surroundings of the CEO-owners and their family members are defined as inner circle advisors (Samuels et al. 2008, De Koning and Muzyka 1999). The immediate surroundings where the CEO-owners regularly communicate and the people in his / her family are defined as inner circle advisors. Inner Circle advisors usually consist of a limited number of people, very close to the CEO-owner, who share their experience with only the CEO-owner. Soriano and Castrogiovanni (2012) stated having an entrepreneurial environment is an important opportunity to learn about the processes and pitfalls of managing an enterprise. Being a member of an enterprising family is considered to have given a vision that influences the knowledge, skills and values necessary to manage a firm effectively. Advisor experiences can be seen as a human capital for an SME because it is thought that the vision obtained from people who have experienced similar things before in the inner circle affects the performance. The presence of a CEO in the inner-circle is quite beneficial for an entrepreneur.

While industry-specific knowledge can be obtained with specific educations taken before starting work, general business knowledge is acquired when the work is in progress and it is seen that education has positive effects on profitability and productivity. This effect on performance of the education does not apply to situations in which industry-specific knowledge is taken while continuing to work, or when general business knowledge is acquired prior to startup (Soriano and Castrogiovanni 2012). Soriano and Castrogiovanni (2012) found that the only relationship between experience and profitability & productivity in the same industry is that productivity is not an effect on experiences but

productivity is positively influential. The contribution of the managerial experience to the acquired experiences can make unnecessary missions out of the way and make them realize the most effective and adaptable work. The acquired experiences can make unnecessary missions out of the way and make CEO-owner realize the most effective and adaptable work (Soriano and Castrogiovanni 2012).

Soriano and Castrogiovanni (2012) reached three results in their study. First one is whether education affects performance or not, industry-specific education has been found to have effected profitability and productivity before SME establishment and business knowledge after SME establishment, which is both positive. The second result in the study was that the experience of the CEO influenced productivity but did not affect profitability. Last one is, it was found that both profitability and productivity were positively affected by the experience of the CEO which is gained from the inner circle advisors. Budgetary, social, technological, physical resources are the resources that must be possessed to reach the goals of new entrepreneurs. (Brush et al. 2001, Lichtenstein and Brush 2001, Greene and Brown 1997).

A study on a specific type of resource in the field of new enterprise- knowledge has indicated that knowledge resources which are very important resources for new ventures because it is the first resource acquired for a successful new venture, give the information about new company establishment, how to manage people and processes in the enterprise, how the company can make progress, use of technology and new resource management (Wiklund and Shepherd 2003, Brush et al. 2001). Entrepreneurship and entrepreneurship management is defined as an understanding of new possibilities Schumpeter (1934) and Penrose (1959). Entrepreneurs must create a logical framework before they start recruiting, making new equipment purchases, establishing partnerships, or selling products / services and it should be in the startup. Thus, entrepreneurs will develop their ability to understand and see new opportunities to come to an aggressive position on the commercial arena. Similarly, for an opportunity to be seen, the structure of the types of resources required by this opportunity must be understood before seeking new resources to enter the market or providing a competitive abstraction. In the study they conducted, West III and Noel (2009) investigated the relationship between the performance of new

initiatives and the information obtained at the initial stage. Knowledge about the industry, knowledge about the type of business, and knowledge about the beginnings of new ventures are three types of information that are important in terms of procedural knowledge (Wiklund and Shepherd 2003).

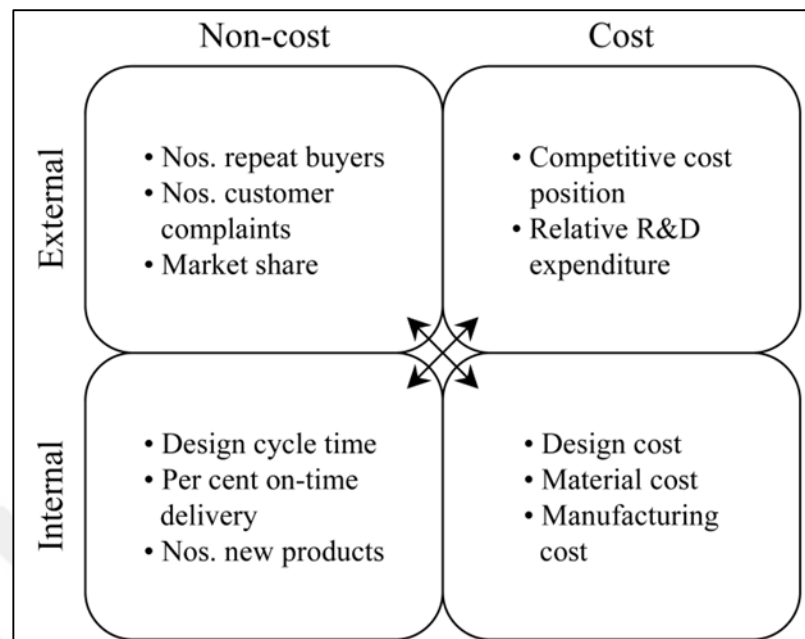
2.9 PERFORMANCE SYSTEMS AND GROWTH METRIC

Neely (2005) described the extensively accepted performance measurement systems as follows: “A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions”. It is to ensure that financial and/or non-financial, long and/or short-term, internal and/or external, supporting ex post and/or ex ante decision-making processes and analyzing the information on the performance of the organizations on this, with this definition of Bisbe and Malagueño (2012) it can be seen in summary of the important features of Performance Measurement System (PMS).

i- Performance Measurement Matrix

One of the widely accepted frameworks is the performance measurement matrix. Performance measured was classified as being “cost” or “non-cost” and “internal” or “external” by Keegan et al (1989), which is showed in Figure 2.1.

Figure 2.1: Performance Measurement Matrix



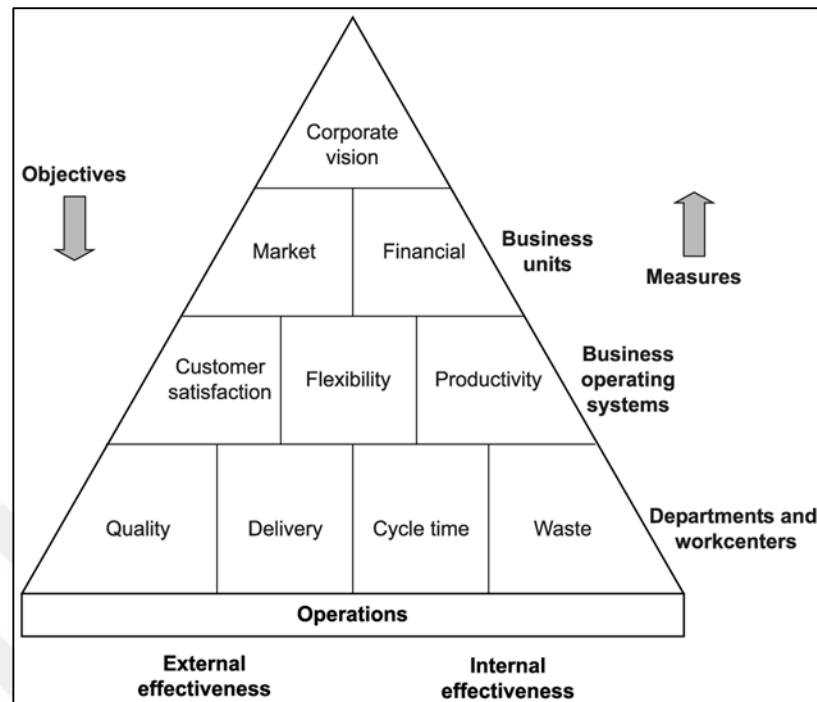
Source: Keegan et al. (1989)

This framework reflects the need for a more balanced measurement system and its flexibility and simplicity made it easy for practitioners to use.

ii- Performance Pyramid

This pyramid, which is indicating the demand for the use of internal and external measures, was created by Lynch and Cross (1991) and it is called performance pyramid. it underscores the cascading order of measurements beginning with the company vision on the top and more particular measures at the bottom (Figure 2.2).

Figure 2.2: The Performance Pyramid



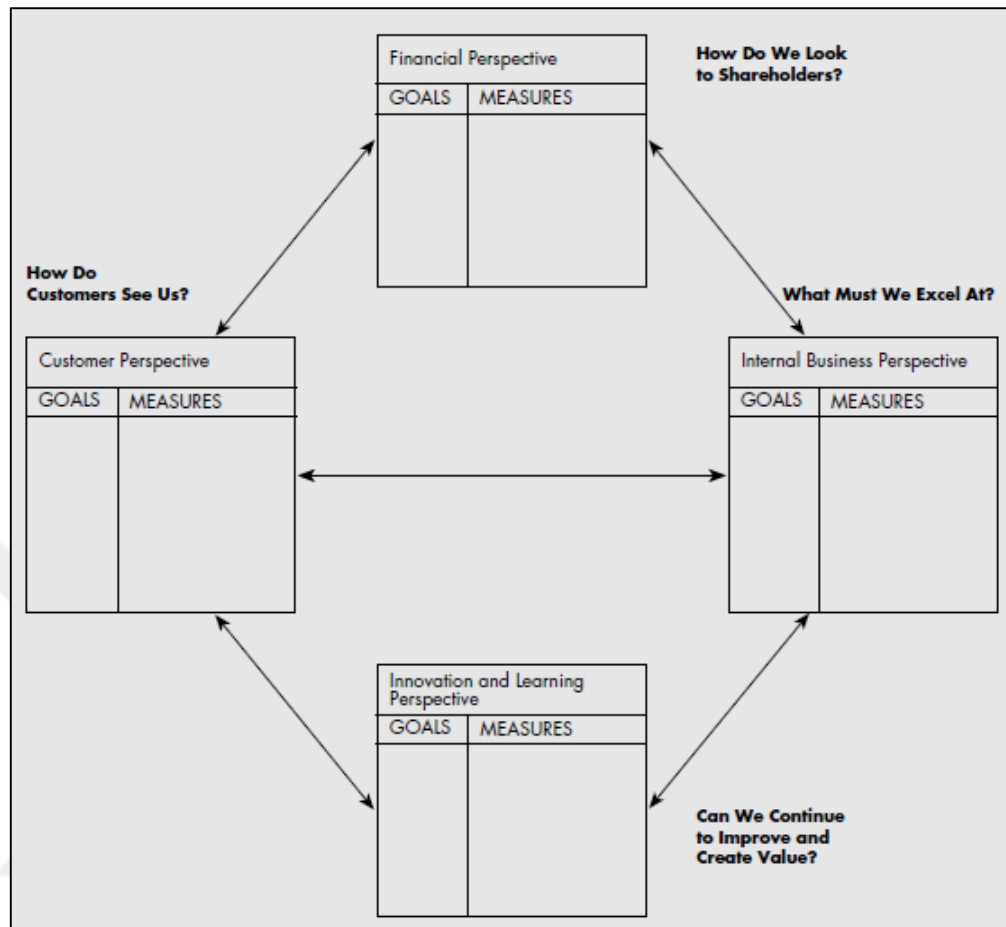
Source: Lynch and Cross, 1991

Neely et al., 2007 stated that it has the advantage of being compared to the performance measurement framework, which groups functional clusters and provides guidance and support for simplicity reduction and chatter.

iii- The Balanced Scorecard

In recent studies, 80 percent of companies use balanced scorecards, so the most famous performance measurement framework ever made is the balanced scorecard (Neely et al. 2005) and it is shown in Figure 2.3. The balanced scorecard originates of four different perspectives: (1) The customer perspective, (2) the financial perspective, (3) the internal business perspective and the (4) innovation and learning perspective. It is emphasized that every measure should be connected to strategy and support the key objectives in causation. Thus, once the initial target is established, the measures that determine whether the specified goal has been achieved are defined Kaplan and Norton (1992).

Figure 2.3: The Balanced Scorecard



Source: Kaplan and Norton, 1992

The strategy map connects the performance measures and the strategy so that the four perspectives are connected to each other and to the strategy of firm through the strategy map Kaplan and Norton (2000).

2.9.1 Customer Metrics

Kaplan and Norton (1992) have incorporated the customer category into balanced scorecards and have indicated the importance of customer metrics for strategic use. Customer metrics are not valued as financial measures, and this is the most prevalent in management accounting (MA), so problems arise in determining the amount of problems. Bates and Whittington (2009) reviewed 18 MA studies and found that only one was included in customer profitability analysis (CPA) and customer lifetime value (CLV), whereas Blank and Dorf (2012) and Ries (2011) indicated that customer metrics played

a very important role in the decision-making and implementation of the business model. It is known that concepts such as CLV provide more information to customer metrics by combining customer information and financial indicators. Customer metrics are an important indicator of product-based customer satisfaction and the status of company progress (Croll and Yoskovitz 2013).

2.9.1.1 Customer satisfaction

Customer satisfaction is the most important customer metric (Kaplan and Norton 1992), and customer satisfaction is seen as an important indicator in non-financial performance surveys (Matook 2013, Chenhall and Langfield-Smith 2007, DeBusk et al. 2003). Examples of observable customer metrics used to measure customer satisfaction include viral coefficient and CLV (Petersen et al. 2009, Gupta and Zeithaml 2006).

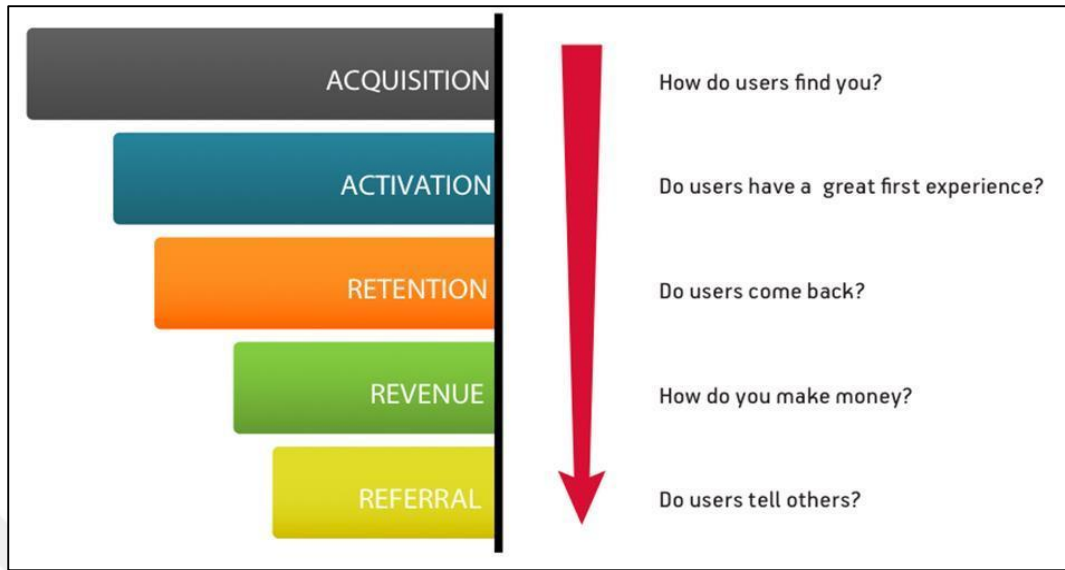
2.9.1.2 Customer lifetime value

Customer Lifetime Value is a prediction of all the value a business will derive from their entire relationship with a customer (Gupta and Zeithaml 2006). The rate of clients who end their association with the organization in the given time frame (churn rate), is utilized to figure the CLV. CLV is used to determine high profitable customers, as well as to determine the level of expenditure to be made by the firm to win new customers, which is called customer acquisition cost.

2.9.1.3 Pirate metrics

Dave McClure (2009) has developed a concept that resembles a known sales funnel, giving an overview of the steps that customers will take, and he is the entrepreneur and founder of running "500 startups". "AARRR" is the first letter of his concept (Acquisition, Activation, Retention, Revenue, Referral) which said loudly sounds like the battle cry of a pirate. Because of this he coined the phrases, the pirate metrics or AARRR-funnel (Figure 2.4).

Figure 2.4: AARRR-Funnel



Source: McClure, 2009

It is stated by McClure and other researchers that the implementation and analysis of this metric could be used by entrepreneurs to identify success points in their products and how they affect performance when there is a change in the product. An important detail for the pirate metric is that this metric deal with conversion rates rather than numbers, and these conversion rates can be calculated for each step separately or for the entire funnel. Various marketing and performance measurement specialists defend the success of this metric. For example, the retention step is considered a key metric because it means that customers like the product.

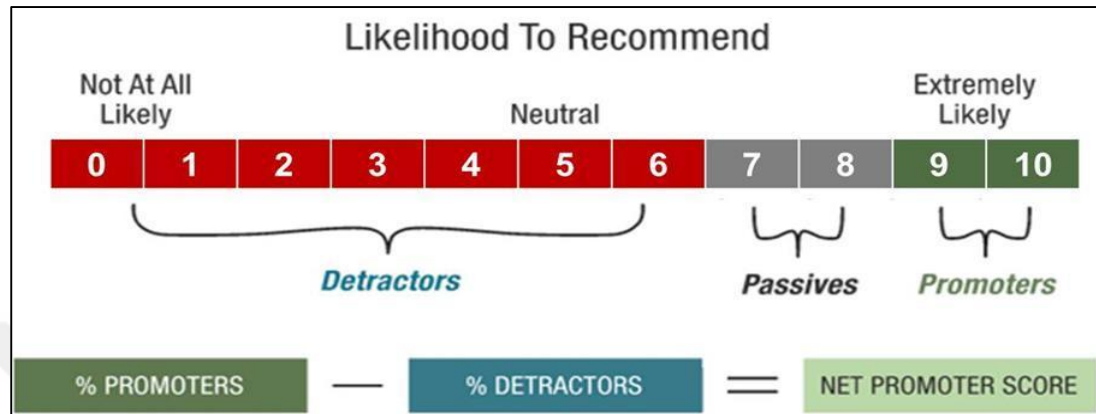
2.9.1.4 Referral metrics

Draper Fisher Jurvetson which is a venture capital company, coined the term "viral marketing" and the meaning is network assisted word of mouth (Croll and Yoskovitz 2013). Bass (1969) who found that word of mouth prompts to a S-formed growth trajectory (Bass diffusion curve) evaluated the idea of word of mouth which can explained as the effect of clients recommending an item to loved ones.

Reichheld and Markey (2011) developed the net promoter score (NPS) which defines probability of word of mouth. NPS is based on a direct question: "How likely are you to recommend our company/product/service to your friends and colleagues" The answer's annotating is generally in 0 to 10 scale. Customers who give a rating of 0-6 are called

detractors, while customers who give 7 or 8 responses are called passive satisfied customers. 9 or 10 responses are considered as promoters (Figure 2.5).

Figure 2.5: The Net Promoter Score



Source: Darika, 2012

Some scholars say this metric is the key driver for business growth, while others have supported this proposal in quantitative terms. For example, even one customer dissatisfaction has diminished firm value, and dissatisfied customers have lost potential customers because they share it with the people around them (Petersen et al. 2009, Hogan et al. 2003).

In addition, it has been noted that customers who earn by referral are twice as likely to earn more than those earned by advertisements or promotions (Villanueva et al. 2008).

2.9.2 Financial Metrics

Up to this title non-financial metrics are mentioned in performance metric systems. However, Kaplan and Norton (1992) and some researchers have emphasized the importance of financial metrics. The periodic financial statements show that the quality, response time, sales and market share developed by managers demonstrate how they can be converted into lower operating costs and higher turnover. Financial metrics based on the profit/loss and balance sheet and these metrics is discussed in performance measurement and management accounting literatures. Maltz et al. (2003) stated that the following should be noted when examining financial metrics output within the scope of

performance measurement systems: “There were no major surprises in the most common financial measures. Sales, profit margin, revenue growth, cash flow, and net operating income were the most important measures as seen by the respondents and were widely used in academic research.” (Maltz et al. 2003, p.194).

As noted in the Expert workshop conducted by Berlin Startup Insights, cash flow, liquidity, burning rate and duration of cash outflows play an important role in showing the amount of investment they can make to small and / or young companies and how long they can continue without profit to improve their investments (Tan and Smyrniotis 2011, Maltz et al. 2003). Tan and Smyrniotis (2011) stated in the SME study that for the managers who want to keep their business, it is more important indicator of having cash instead of getting cash from the profits (Jarvis et.al. 2000).

2.9.3 Operational Metrics

Operational metrics that are defined in the literature in a non-obvious manner are very much related to the value-added process of the business (Tan and Smyrniotis 2011). Operational metrics derived from key processes that a company undertakes to create, acquire and earn value, which are more important for businesses in the manufacturing industry, while companies in the service sector also use these metrics for process improvement (Osterwalder and Pigneur 2011, Kaplan and Norton 1992).

2.10 TURKISH ECOSYSTEM

This part of literature designed to present statistical information about Turkish small and medium sized enterprises, government related support programs, licensed angel investors and their investments for recent years.

2.10.1 Small and Medium Sized Enterprises

According to TÜİK data, SME initiatives given numbers in Table 2.1 constituted 99.8 percent of the total enterprise in 2014 (TÜİK 2016).

Table 2.1: Number of SMEs According to Sectors

Economic activity (NACE Rev. 2)(1)	Size class	
	Total-Number of enterprise	SMEs (1-249)-number of enterprise
Turkey	2.677.316	2.672.458
Section B Mining and Quarrying	3.715	3.642
Section C Manufacturing	332.834	331.050
Section D Electricity, Gas, Steam and Air Conditioning Supply	1.513	1.459
Section E Water Supply; Sewerage, Waste Management and Remediation Activities	3.333	3.252
Section F Construction	171.268	170.826
Section G Wholesale and Retail Trade; Repair Of Motor Vehicles and Motorcycles	1.047.752	1.047.257
Section H Transportation and Storage	411.174	410.958
Section I Accommodation and Food Service Activities	233.450	233.111
Section J Information and Communication	32.756	32.685
Section L Real Estate Activities	25.175	25.168
Section M Professional, Scientific and Technical Activities	161.647	161.547
Section N Administrative and Support Service Activities	33.390	32.554
Section P Education	16.430	16.273
Section Q Human Health and Social Work Activities	30.781	30.594
Section R Arts, Entertainment and Recreation	21.505	21.493
Section S Other Service Activities	150.593	150.589

Source: TÜİK, 2016

When the enterprises in small and medium size manufacturing enterprises are classified according to their technology levels, 59.7 percent of them are working with low technology (TÜİK 2016). In the SMEs that are active in the manufacturing industry, there are 992 SMEs with high technology, 30.053 SMEs with medium-high technology, 102.215 SMEs with medium low technology and 197.493 SMEs with low technology (TÜİK 2016).

2.10.2 Government Supports

2.10.2.1 KOSGEB

In 2015, the support provided under the KOSGEB Support Programs Regulation increased by 12.3 percent compared to the previous year. The number of net businesses supported under KOSGEB Support Programs Regulation increased by 12.2 percent

compared to the previous year. As Table 10.2 shows, the support programs for which the businesses make the most use; General Support Program is the first, Entrepreneurship Support Program is the second, Research and Development, Innovation Industrial Application Support Program are in the third place (KOSGEB 2015).

Table 2.2: Application Results of KOSGEB Support Programs for 2015

Support Program Name	Support Amount (TL)	Number of Business
Supports given within the scope of KOSGEB Support Programs Regulation (Official Gazette No. 27612 dated 15.06.2010)	341.476.876	389.961
Research - Development, Innovation Industrial Application Support Program	53.699.340	974
General Support Program	158.734.818	25.995
SME Project Support Program	2.277.595	144
Entrepreneurship Support Program	126.665.386	118.282
Thematic Project Support Program	13.171	23
Developing Business Market SME Support Program	86.566	3

Source: KOSGEB, 2015

Distribution according to sectors, the amount of support utilized by enterprises in the manufacturing sector accounted for 43.1 percent of the total support amount. In addition, 38 percent of the supported enterprises operate in the manufacturing sector. Trade sector is the second sector in terms of both the number of enterprises and the amount of support. In the distribution according to scales, it is seen that 57.8 percent of total support is used by micro-scale enterprises, 27.2 percent by small-scale enterprises and 14.7 percent by medium-scale enterprises.

2.10.2.2 TÜBİTAK

It has stated that, between 1995 and 2014, 14.344 Projects Supported and 4.14 Billion TL Support, 7.57 Billion TL R&D by TÜBİTAK (TEYDEB 2014). Between 2004 and 2014; while the number of supported SME projects increased five-fold, the number of projects

supported by large-scale companies increased four-fold. In 2014, 514 large-scale companies and 1400 SMEs were supported. Between 2004 and 2014, while the amount of grant support paid to SMEs increased about 6 times, the amount of grant support paid for large scale firms increased about 3 times. In 2014, the amount of support given to large scale firms was 162.1 million TL while the amount of grant support given to SMEs was 273.3 million TL.

Sectorial distribution of support between 1995-2014: information and communication technologies 25 percent automotive 22 percent, defense 14 percent, machinery and manufacturing technology 14 percent, health 6 percent, chemistry 4 percent, food agriculture and livestock 4 percent, energy 2 percent, 1 percent in mining, and 5 percent in other sectors. According to the TEYDEB report of the year 2014, the number of projects supported in 2014 is 3091 and the number of completed projects is 1231. It is stated that in the same report, within the framework of the 1512 Entrepreneurship Gradual Support Program, 350 calls were made for the 3 calls made in 2012-2014, 3216 business applications were received, 350 companies were founded and supported, and 21.7 million TL was paid. Protocol was made with 11 large scale firms to provide additional support to entrepreneurs supported under 1512 / B Call.

2.10.3 Angel Investors

Undersecretariat of Treasury gives license to angel investors that provide investors support and tax deduction related grants. Due to license program they also provide yearly based development reports. In Table 2.3, license application counts are presented:

Table 2.3: License Applications of Individual Participation Capital

License Application	Years	Numbers
Number of licenses issued	2013	155
	2014	120
	2015	69
	2016 (September)	56
Total		400

Source: Republic of Turkey Prime Ministry Undersecretariat of Treasury, 2016

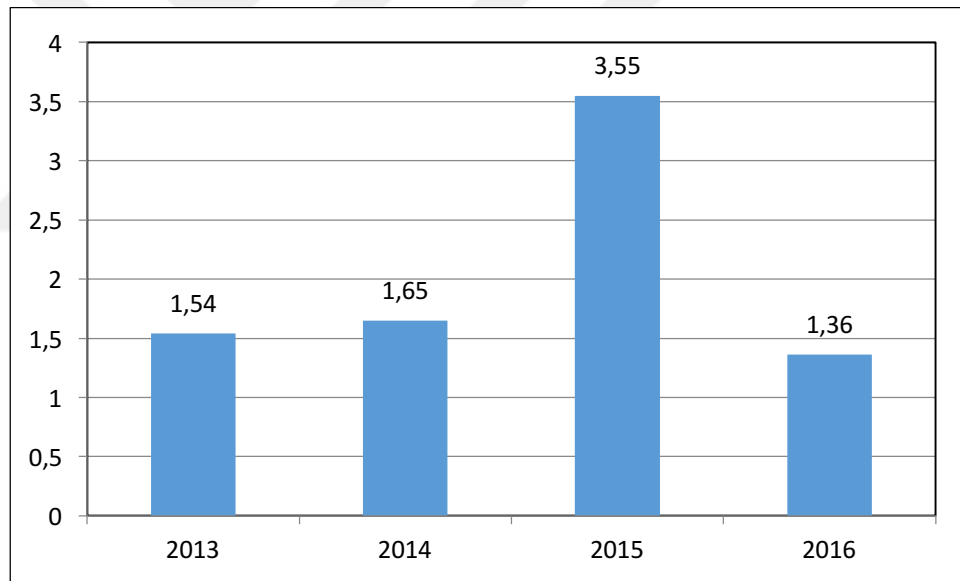
Distribution of licenses according to high income / wealth and experience is shown Table 2.4.

Table 2.4: Licenses According to High Income/Wealth and Experience

Investors type	Number of Investors
Experienced	132
Individual Wealth	151
High Income	117

Source: Republic of Turkey, Prime Ministry, Undersecretariat of Treasury, Secretariat 2016

Figure 2.6: Yearly Angel Investments (in Millions, TL)



Source: Republic of Turkey, Prime Ministry, Undersecretariat of Treasury, Secretariat 2016

These stats are official numbers, in reality startups are funded mostly by their inner circle. Angel investors who have license also make investments out of government program registry.

3. METHOD

This research is conducted by using qualitative analysis approach. Qualitative analysis is a broad approach that contains variety of methods. The aim of this qualitative research is analyze qualitative data which focus on Turkish startups challenges faced through the success and try to discover their repetitive behavior how they overcome and succeed. This research's goal is generating concepts that explain the way Turkish startups resolve their business problems to succeed by the data that gathered directly from selected co-founders of operating startups with in-depth interviews that formed with open-ended questions. With open-ended question, researcher targeted to convey broad concept of topic and get detailed answer and observe if underlying reasons will be reflected to data in a similar manner context. Open-ended questions also provide chance to reveal related issues that maybe not pre-structured through the interview outline and help for better understanding for researcher to discover similarities between behaviors.

3.1 SAMPLING

This research involves only startups that operate in Turkey. Interviewed startups selected from variety of business focuses and types which are established at least one and a half years ago. They mostly provide technological products and by the help of high-tech services and target different business segments with different business logic acceptance. A survey form, which is created by the researcher and has 11 broad open-ended questions, is asked to ten different selected startups' co-founders. 7 of the 10 in-depth interviews held in company offices or branches in İstanbul, the other 3 interviews conducted by phone calls. In Table 3.1, Interviewed startups are listed:

Table 3.1: List of Interviewed Startups

Business Type	Location	Founding Year	Company Name
Mobile Marketplace	İstanbul	2014	Company A
Cloud PBX SaaS	Denizli	2013	Company B
Marketplace	İstanbul	2014	Company C
Translation Service	İstanbul	2013	Company D
Risk Evaluation	İstanbul	2014	Company E
Mobile Chat Service	İstanbul	2010	Company F
Marketplace	İstanbul	2013	Company G
Mobile Application Making Platform	Antalya	2014	Company H
Software Development Agency	İstanbul	2013	Company I
Human Resources Management Platform	İstanbul	2014	Company J

3.2 PROCEDURE

As seen in the Table 3.1, 10 different startups that uses varied business models and customer segments selected for data gathering. Interviewees reached by researcher and thesis subject and brief information about process explained. After agreed available timetable to meet, interviews conducted separately. 7 of the 10 in-depth interviews held in company offices or branches in İstanbul, the other 3 interviews conducted by phone calls. Interviews took about 40 to 60 minutes changing with co-founder's willingness to tell issues that they related to the open-ended questions. During the interviews, researcher took notes and questions mentioned in a manner of fluent conversation that gave chance to co-founders express their opinion freely and not structured way. To get reliable and

freely expressed answers, interviewees told that this interview will not be recorded and company names or trade secrets will not be revealed in any way to protect their privacy.

Survey form consists broad 11 open ended questions which are listed below:

Question 1: How did you fund your startup? Did you get investment?

Question 2: Did you applied for government grants?

Question 3: How do you define startup success?

Question 4: What was your main motivation while starting a business?

Question 5: Did you used customer development model or lean startup related methodologies?

Question 6: Did you used methods for lowering expenses?

Question 7: Do you think innovativeness is vital for your work? How do you use this approach in your business?

Question 8: What is your education history?

Question 9: What is your previous work experience?

Question 10: How do you monitor your business? What metrics do you follow?

Question 11: What was the main reason that you think made your startup successful?

4. FINDINGS

After the period of interviews conducted, interview scripts listed with brief company information and given answers to open-ended questions by the help of notes that have been taken during meetings. Following part shows gathered qualitative data from selected 10 Startups.

4.1 INTERVIEWS

Table 4.1: Company A

Business Type	B2B, Mobile Marketplace
Business Description	Mobile platform that connect mentors and mentees
Founding Year	2014
Founder Count	3
Company Location	Istanbul
Interviewee	Co-founder
Interview location	Company Office

A1: We took seed funding from an angel investor for MVP, investor also provided some workforce, application developer.

A2: No. Our business is not suitable for grant programs I think; we don't have any plans to apply.

A3: High growth in terms of users and being known is very important for us. We currently don't have financial metric to see ourselves successful.

A4: My motivation was about making my own business and business should be touching many people.

A5: We used lean startup methods First we created our product and couldn't validate the customer. Then pivoted. For recent business stages took like one month for discovery.

We developed application in 6 months. And validation took about 3 to 6 months. Development never ends, so we are iterating each small idea in our business.

A6: Yes, to cut our expense we used incubator's office. We took freelance jobs time to time to create fund. Applied some programs to take free server usage like Microsoft BizSpark and used personal credit cards.

A7: We use innovation in business model by taking classical approach in an innovative way and making it easier for both side of customers. Innovation also important for reaching and attracting customers and it affects our survival.

A8: I'm a Civil Engineer but before starting business I attended KOSGEB's entrepreneurship programs, Founder Institute's learning groups and also İTÜ Çekirdek's trainings. They helped me a lot during the company building times.

A9: I have some sector related experience and one of our co-founder is a mentor. Third co-founder is technical background and we think this is good match for our application business.

A10: We don't have any employee, just founders. We only monitor Daily/ monthly active users and user acquisition cost. It will be long way and we believe our metric size will increase.

A11: Finding right founders to believe same idea is important. Our chemistry made us able to create successful business.

Table 4.2: Company B

Business Type	Virtual PBX Saas, B2B
Business Description	Providing telecommunication convergence technology by voice over IP technology, virtual IP based phone-box by cloud hosted software
Founding Year	2013
Founder Count	4
Company Location	Denizli
Interviewee	Co-founder, CEO
Interview location	Istanbul Branch Office

A1: We all started with co-founder's savings. Tried to get investment but never settled.

A2: Our company founded in Denizli techno park area and we have advantage for some kind of taxes. Company also runs TÜBİTAK granted Project and EU granted projects.

A3: We don't have success definition based on employee count or profit. First we focused on brand awareness and reaching lots of people as soon as possible, relatively gaining market share on traditional telecommunication corporates is important success key for our company.

A4: We saw opportunity in terms of gaining customer from our target segment. We expect high growth for user base and achieve it by our tech skills.

A5: For start we followed lean startup methodology. Our Discovery stage took about 2 months. Proof of concept took 4 to 5 months then customer validation stage about 4 months.

A6: Yes, we are established in techno park area for tax advantage and reaching skills with low cost. Some payments made by co-founder's credit cards, we use shared office for low rent. Also being in university techno park area gives us ability to hire low-cost employees.

A7: Our whole business process involved with innovation. Product's itself is high-tech and for cost reduction it is very important for us to find new ways to operate. Without ur innovative solutions, we can't scale or fight sales price of huge telecommunication companies. We simply can't survive.

A8: I have master degree on business administration but didn't take any course or education on entrepreneurship. My education helps me run company a lot.

A9: I worked in three different companies before. Also have failed software development company attempt. Previous company was developing products for new ventures and also our 7 or 8 developed product/business failed. I was monitoring those businesses closely and see their business fails thought me a lot.

A10: We continuously monitor revenue, data usage of customers (also an income item) and support ticket count that hard to operate and cause us lots of manpower.

A11: Our high-tech innovation based product let us operate in giants' league and give service tiny budgets comparing to them. Also good communication and customer support efforts makes our customers loyal and helps getting new customers by happy customer referrals.

Table 4.3: Company C

Business Type	C2C Marketplace
Business Description	Peer to peer car sharing platform
Founding Year	2014
Founder Count	3
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Company Office

A1: Yes, we get seed funding from angel investors. Before that we used founder's savings and gave minor shares to family and friends.

A2: Our business not suitable for government grants and we don't think apply to these programs.

A3: It is very important to be known and get market share as soon as possible in this new area that we are running business. So high growth in terms of both ends of user which are car owners that provide supply and paying customers that rent cars. We are running marketplace and we need to be grow both side balanced.

A4: We saw opportunity in our target operational segment and it was easy to enter for us. Also running your own business is tempting.

A5: We didn't use any methodology, but while developing our web platform we used some Project management methods. Regularity issues are more difficult to solve and our first focus was making our process legally insured.

A6: In terms of developing our web platform, outsourcing was very helpful. We get good results with low budgets. Also for marketing we tried to find low cost ways to reach potential user and seek for word-of-mouth viral expanding strategies. Some ways that we have tried went well.

A7: Our approach to business is innovative way and let us differentiate in the eyes of customers. Without innovative new approach this model and also our company couldn't

exist. We have to find new ways in our business process in details also. Everyday we seek for new ways to achieve this vision.

A8: I studied naval construction, not even close what I am doing right now. Never took entrepreneurship courses either.

A9: This is my first company and first job. I have no experience or network in current market.

A10: We have no employee so we don't use metrics for employees. But both providers and paid customers we monitor retention, reuse of platform. We have referral system and also watch referral counts.

A11: I think most important thing is believing in team and ready to suffer. This journey has many ups and downs, everybody need to motivate each other and run for executing ideas together.

Table 4.4: Company D

Business Type	B2B Translation Service
Business Description	Fast translation service for enterprise
Founding Year	2013
Founder Count	3
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Company Office

A1: We started with co-founders' money and some angel investments from my sister and mom. Then we attended to MasterCard Challenge and Turk Telekom's PILOTT program which both we have won and got prize money. After 1 year we also angel investment.

A2: We applied for TÜBİTAK 1507 program and accepted. Still not started due to TÜBİTAK's uncertain situation, we will decide soon.

A3: Our success definition is about reaching break/even point swiftly and achieving this milestone with good revenue stream that has efficient profit margins.

A4: I wanted to have my own business and saw opportunity in translation area and jumped.

A5: We know about lean startup and customer development model but maybe some of business process lookalike. At first our target segment was academicians and personal accounts but we failed at this. Then we changed our target to enterprise customers. During this transition, it took 4 months to reach minimum viable product and 6 months to validate customer/market. Development never ends, we are still developing our software.

A6: Our life is about bootstrapping. At first we entered startup challenges to win prize and won 2 of them. We don't pay salary to co-founders. We also make lunch and dinner in office that we use incubators free shared office. Before that we were using Starbucks or similar coffee shops for office. We usually use open source free tools for project management and sales software. Also have paid services but we are seeking ways to pay less by examining their pricing policy levels. For reaching customers instead of door to door meetings, we use LinkedIn to find shared contacts in potential customer, and reach the right contacts.

A7: Innovation is very important us. We try to find new effective ways to reach customer, differentiate our service, translator optimization, lowering costs and also increasing speed and quality. This approach saved us many manpower while serving business. It is very costly to use human where you have chance to replace it with technology. Cost effectiveness is vital for us and we can't survive without innovation.

A8: I studied Mechanical Engineering in Yildiz Technical University, but self-thought web development and machine learning areas. After starting this company, I also took business canvas course, user experience and finance courses in incubator.

A9: This is my first startup and working experience. I didn't have any sector specific network and it hurt a lot at the beginning. We waste so much time and money by targeting wrong segment.

A10: We follow many metrics but important ones are revenue, sales funnel convergence rates, customer lifetime value, quality score, revision requests and enterprise account churn rate.

A11: Hustle. You need to be open learning new things everyday. It is not happening by saying I know, being humble is important. Learning defining the problems correctly and solve quickly is also very important skills to make any business succeed.

Table 4.5: Company E

Business Type	B2B
Business Description	Geographical risk evaluation platform for insurance enterprises.
Founding Year	2014
Founder Count	2
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Company Office

A1: We started with our savings, then took investment from Girişim Fabrikası.

A2: Yes, we are data analysis experts and product's core includes high-tech R&D methods. We run projects with TÜBİTAK programs and grants.

A3: We are in a limited market in terms of potential enterprise customers count and already have 20 percent market share. So market share isn't a good metric for us, revenue per employee, efficiency driven development and lowering cost for competition.

A4: It is about doing own business and also working conditions were bad in our sector, not enough technical work satisfaction too. We saw opportunity and capable of doing outstanding work.

A5: In terms of lean startup or customer development model we don't follow certain way. For software development we have two week sprints. We have ongoing development operation and iterations. If we look back our minimum viable product took 1 month and validation took 6 to 9 months...

A6: For 2 years we have never paid office rent or server fee. We are using incubator's shared office and Microsoft BizSpark Plus program. We are small team and most of cost about founder's salary so we didn't pay anything to ourselves. We don't use paid software solutions, searching for free options.

A7: Innovation is very important to our business. If we were 10 percent better from our big enterprise competitors' solutions, it wouldn't be enough advancement for customer to choose us. We are now 10 years advanced in our sector, by it's performance and efficiency. Our product innovation also let us run with low cost and profitable.

A8: I studied city planning and geographical information systems. My partner has master degree in computer science. In Girişim Fabrikası incubation center, we attended customer development courses, İTÜ GATE gave us financial modelling seminars.

A9: I worked 6 years in related business. This is my first startup, but I didn't have connection network in our current customer base.

A10: We regularly check product to see if it is running smoothly, usage statics, monitoring customer satisfaction monthly on mail and face to face meetings. We also monitor yearly recurring subscription rate.

A11: Working hard, maybe working harder than needed. 12 to 14 hours a day, without holiday and weekend. Suffering and being able to suffer is important.

Table 4.6: Company F

Business Type	Mobile Chat App
Business Description	Mobile application that connects and give opportunity to discover new people around the world
Founding Year	2010
Founder Count	1
Company Location	Istanbul
Interviewee	Founder, CEO
Interview location	Phone Call

A1: I started with my savings. Never seek for outsider fund.

A2: No, I don't think they are suitable for my business.

A3: For me success means having a huge user base and exit by selling company. In this mobile application game, I don't need any employee, I am developing product all myself.

A4: My motivation was having my own business so I can make what I want. Relax working schedule and target global market.

A5: I didn't think that way, even I know the concept. I'm working lonely so I didn't make any plans. Just developed the application.

A6: Since I am the only worker, my office is my home. Sometime I used shared office to split the rent. I also make side-projects and freelance jobs to finance myself.

A7: My innovation only on products platform and technology. It is very straight forward business.

A8: I studied engineering in İTÜ but never took entrepreneurship related courses.

A9: I worked for many companies in 10 years. In these job I also developed similar technologies, online messaging, video conferencing and so on. This knowledge make my first production time very little, it was big advantage.

A10: I regularly follow active user based on daily, weekly and monthly. Total application download count, retention and churn rate is also important. I make money on advertisements in application so ad impression, click and revenue per click and impression rates are my revenue metrics.

A11: I entered the market very early, even before WhatsApp. Being early company in business means low user acquisition cost. If I would start today with similar application, I can't get enough user base to make money.

Table 4.7: Company G

Business Type	B2B Marketplace
Business Description	Marketplace platform that connects performers with occasional performer seekers.
Founding Year	2014
Founder Count	3
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Phone Call

A1: We used our savings, family and friends' savings. Also took seed funding from angel investors. Also we organized a group that we call "Academy", members are influencers in our sector and they are not just mentors, they put money at their own risk and gave us operational feedbacks.

A2: I am against government supports. It is an addictive attitude, makes companies lazy, I even know many owners just seek for grants, not profit over customers. The point is creating a value and get money from customers' pocket.

A3: We don't have money oriented goals in mind. When its investigated, the ones who achieved great works never started for money, main motivation is being able to reach vision then money follows. We want to be first company in mind when art and performance subject. Being seen and being trademark is our success definition. Gaining market share will provide our needs. These finding and hiring performers process includes physical touch, we want to make it remotely accessible.

A4: I want to create value and disrupt some classical sectors since 18 years old. This is possible only creating a new venture, and what we did was that. We looked for eternal sector to disrupt so we have chosen entertainment focused marketplace idea.

A5: I don't think these kind of tactics will work in Turkey or any developing countries. These countries have very little early-adopters and minimum viable product that present value proposition couldn't be enough to sell.

A6: We used incubator's shared office until we have funded. Our HR policy is based on interns. We accept long term trainees with low salaries and educate them. It is beneficial for both sides of the table.

A7: Our core model is innovative and disruptive. That provides our existence. By creating new ways for secure payment models, both sides are happy in our marketplace. Our marketing efforts are new, but we are seeking innovative ways to create word of mouth effect and cost effective results.

A8: I have degree on Civil Engineering from Middle East Technical University. I wanted to attend Master programs on Business Administration but then I choose to spend savings on creating this company.

A9: I have studied abroad for 4 years, construction projects. I have no sector related experience but I have involved with creating communities and non-profit organizations.

A10: We are working wit 15 people in office, it is important that these people blend with our values. We don't use metrics to follow them, just everyday face to face feedbacks. For marketplace we monitor comment count, comment percentage, satisfaction, singular customer count, convergence rate, average paying customer.

A11: Self confidence and self motivation. Being patience is very important. We have mental stop loss point to drop business. We have growth goals, and also getting second funding ideas. When we get second funding, we will change our office environment and increase benefits of employees. These dreams stay us alive and running.

Table 4.8: Company H

Business Type	B2C, Mobile Application Making Platform
Business Description	Software solution that enables non-technical people create mobile applications on their own.
Founding Year	2014
Founder Count	2
Company Location	Antalya
Interviewee	Co-founder, CEO
Interview location	Phone Call

A1: I sold my car, accepted to Turk Telekom's PILOTT incubation program and some gained grant. Later we took money from angel investors.

A2: We are in Antalya techno park and benefit from tax related issues. We also ran KOSGEB program for one employee salary and needed hardware equipment.

A3: Success mean high growth in user base. We primarily focused on creating an ecosystem around us that everyone creates something. Our product does this work and also for satisfying our investors we have monetary goals.

A4: Doing my own work concept is tempting. When we see opportunity in mobile sector, we entered immediately.

A5: Our discovery stage was when we were working outsource projects as freelancer. Everybody was needed similar specification that kind of content management system on web, but there was no such solution for mobile applications. We regularly talked to market and developing our minimum viable product took about 5 months.

A6: We are in techno park, we attended Turk Telekom's PILOTT program. When we go İstanbul for customer meetings we stay at friends. While developing product we hired

outsource software developer, and as founders took another freelance jobs to afford both ourselves and outsource developer.

A7: Innovation is important and core of our product. There are many mobile application makers right now in the market. Innovation is essential to competition. We are developing our version 3 to catch up new technologies, adding creative and user friendly features for differentiating our platform.

A8: I have master degree on Business Administration and Computer Engineering degree. In PILOTT incubation we took lean model, pitching and some finance courses.

A9: I worked as a software developer for 14 years. I had many hats, developer, product owner, project manager and one other failed startup. Failing a startup before teaches a lot.

A10: We have a dashboard for detailed metrics but general metrics that we monitor are new user, recurring income, application usage, application created, monthly subscriber, applications average usage time. We have also freemium model that everybody can create mobile application for free but we put our ads. So produced applications' usage metrics are also important for us. We have auto-call system for cancelled subscription.

A11: Motivation and communication skills made us successful. Ability to handle stress, motivating ourselves and others, Our practical and fast execution know-how also provide us to enter markets fast. We tried to the end, patience and not giving up is very important. Also after taking outsider money from investors made us reliable and in emotional debt. We work for them too.

Table 4.9: Company I

Business Type	B2B Software agency
Business Description	Developing tailor-made solutions based on enterprises' needs.
Founding Year	2014
Founder Count	3
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Company Office

A1: We have funded our business with only founders' money.

A2: Never applied and don't think to apply.

A3: Building a strong team is important for us. Now we are working on low profit and high efficiency to grow employee size. After reaching a good team size, we are planning to produce our products.

A4: We want to create something and when we saw opportunity, started this business. I don't want to work for someone else.

A5: We are doing custom projects, not product centric business so we use development methods like agile and scrum meetings.

A6: We are currently using shared office. Our selecting project to accept developing, but if we are not good enough to cover salaries, we drop this attitude to fund team salary.

A7: Innovation is about employee satisfaction ways for our business. We try to learn new technologies and apply them into projects.

A8: I studied Computer Engineering and also got MBA. MBA helped me a lot for understanding business logic.

A9: I worked as a developer for 4 years. Also failed a startup before.

A10: For production we use agile Kanban and scrum daily meetings, not tools. For customer side we pay attention to be close and reach us for every solution needs, so they can give us every software based jobs.

A11: Making quality projects and being close to customers are essentials for our success.

Table 4.10: Company J

Business Type	B2B SaaS, Human Resources Management Platform
Business Description	Human Resources and Performance management tools hosted on cloud and served as Software as a Service
Founding Year	2014
Founder Count	2
Company Location	Istanbul
Interviewee	Co-founder, CEO
Interview location	Company Office

A1: We used founders' money, seed investment and also some angel investment.

A2: We tried to get three times but never accepted for programs.

A3: We are not revenue oriented but paid customer count is our main performance criteria for success, penetrate to market.

A4: I worked for startup before and I also want to create business for myself. When I think I found the right idea, started this venture.

A5: We used lean startup methodology. Our discovery phase took 4 to 5 months, developing MVP took about 2 months and 8 months after customer validation. We are continuously developing and iterating product.

A6: We used incubator's shared office and meeting rooms. For hosting applied Microsoft BizSpark program for free usage. We also benefit from incubator's attorney and financial advisor.

A7: Applying global trends to local market needs innovation in itself. There is no successful path to follow in Turkey to sell small businesses software as a service product. We use social media to reach small business owners and talk to them via phone and sell our service. Our 90 percent of sales on phone, remaining 10 percent is by face to face meetings. For fairs we attended low priced student tickets and distributed our brochures without paying huge standing prices.

A8: I am a Geology Engineer but took courses about lean startup, finance, investment pitching courses at incubator.

A9: I worked as software developer for 5 years.

A10: For our team we use face to face feedbacks. For product we mainly focused on monitoring monthly recurring revenue and churn rates.

A11: Dedication and following business continuously. Our approach to customer and after sale makes them love us. There is no SaaS provider that gave them support live, on the phone or integrated with insurance company or meal ticket companies. Our culture and support power differentiate us from other programs and cloud services. We are always visible and reachable.

4.2 REPRESENTING BY GROUPING

When gathered qualitative data listed, qualitative analyzing approach applied to discover shared applications and distinctions of interviewed startups. In order to simplify linkage between findings and literature review topics, findings represented by eight main topics.

a. Success Definition

In researches, success definition perceived in variety manner as to attempt, survive and high growth. In open-ended question based interviews, researcher found that most of the Turkish co-founders describe success as high growth. Gaining and retaining trademark perception is declared key criteria for success. High growth definition also changes for startup to startup. If Company D is considered, it is the only interviewee that declared success definition as reaching break even point and survive. While for Company I growth in team size accepted as definition of success, for others success is about expanding target user base swiftly and gain substantial market share and being known as a trademark. In the group of startups that accept high growth as success definition, there are both companies took investments and only founder-funded ones.

b. Entrepreneurship Type

In this research interviews, only Company I interviewee themselves as high-expectation entrepreneurship activity that aims to employ 20 or more employees for coming years. Other interviewees declared themselves as opportunity entrepreneurship activity that they have chosen starting business in possible career options when opportunity became visible. Main motivation for opportunity seizing declared as creating added-value, monetary goals told as secondary. Running own business and leading it with personal vision to create value is commonly repeated sentence while interviews conducting among startups.

c. Lifecycle and Business Frameworks

Lifecycle refers to differently varying on context. To simply describe, recurring phases among some processes taken as lifecycle steps. There are both cycles for creation business and running business. Creation cycles defined as customer discovery, customer validation, customer creation and company building. Running business related cycles

explained as discovery, validation, efficiency, scale, profit maximization. In this research, founders asked for if they had been aware of these cycles and made plans for them. Then duration took for every stage or phase they had been get through asked. All interviewed founders informed that they are aware of lean startup customer development model and lifecycles. Both Company A and B stated they followed lifecycle methods from the scratch and continue to pursue them. Testing every step in this methodology gave them ability to test validity and understand if approaches will work. Companies C, E, F and G declared that they didn't follow customer development methodologies and don't think to follow certain models. Their business approach doesn't include linear progress but more like asynchronous development that needs to be continuously develop product, retain market share and contacting customer. Company G also stated that they think these stage base methodologies and tactics don't work in developing countries. Company I stated that since they are developing tailor-made developments for customers, these cycles don't apply to them.

d. Bootstrapping

Bootstrapping refers to list of many methods to minimize of need outside money in order to run business. When interviewees asked for if they use bootstrapping methods, it has been revealed that wide spectrum of ways heavily used by Turkish founders. Common ways to decrease costs are using shared offices and incubators' free offices, applying support programs like Microsoft BizSpark for using cloud servers and licensed software free of charge. Try to find open sourced free software solutions instead of paid ones is also common among Turkish startups. Company A and Company H uses this method not only reduce costs but also create some fund by doing freelance or outsource jobs as co-founders. Company D and Company H apply for startup challenges with prizes to create extra funds. Company B and H are established in techno park area that provide benefit on income tax. Companies B, D, E and H runs government grant backed projects for some employee salary and hardware expenses. At the marketing side, lowering cost of reaching customer, Companies C, D, E and J are trying new ways and channels. Employing interns, using social media and packaging product process with benefits to create word of mouth effect are common practice.

e. Innovativeness

Beside Company I, which is not a product company, every interviewee puts innovation at the core of their product. Product innovation used for differentiation, performance enhancement, scalability, running with low cost and efficiency. Company E states that If they were 20 or 30 percent better from competitors they can't even exist, they sell their service by the help of innovative product that 10 years advance in sector. Company D asserts without help of their innovative solution, business operation needed too many manpower to handle and no way to create profit. Companies E, G, H and J are heavily working innovate process of reaching targeted customer segments. All the companies that interviewed in this research strongly states that without innovation they can't exist market in terms of survive and differentiate themselves.

f. Education and Experience

Beside co-founders of Company B and Company H which are studied business administration, interviewees mostly attended engineering programs and didn't take any business administration or entrepreneurship courses during university education. And most of the engineering degrees is not related to their current business areas. Company A, D, E, H and J stated that they have been thought customer development model, lean startup methodologies, pitching, financial modelling and business plan related courses while they attended incubator programs. They stated that they are open to learn any information related to to business when needs emerged. Although most of the interviewees' education do not align with business areas that they run, they mostly have related technical working experience. Related working experience lead them to see and seize the opportunities and provided ability to capture technical knowledge.

g. Performance and Growth Metrics

Although interviewees asserted they heavily use metrics to follow their business, none of the them choice to monitor internal customers, employees, based on metrics but prefer face to face communication. They also prefer face to face regular meetings or phone calls to check customer satisfaction. When it comes to financials, startups use variety of

metrics to follow both income and expenses. Commonly used areas for regular monitoring are retention, sales funnel and product usage related, operational based custom detailed metrics.

h. Cause of Success

Company B, C, G, H and state that communication and motivation are essential for success. Communication between founders, employees and close contact and being visible and reachable by customer can be considered as main similarity among interviewees. Self-motivating skills and motivating both other founders and employees is very important for them. As Companies D, E, G, H and J stated, being able to suffer and working hard is also general acceptance. Company F states that their early existence in market was key of their success, due to current customer acquisition cost and highly crowded market, they couldn't start if they try again. Company D, G and H state that being open to learning, being humble and never giving up and keep continuing to hustling are needed behaviors to reach success.

5. CONCLUSION

This research aimed to discover similar applications of how Turkish startups succeeded based on their lifecycles by gathering qualitative data from directly founders of the Turkish startup by open-ended questions during in-depth interviews. Common behaviors of successful startups can be investigated by their three lifecycle stages. In establishment stage, Turkish co-founders see opportunities in market while they are working for similar technical background. They mostly use their savings and make family and friends believe in them and get angel investment to create business. For their product or service, they heavily embrace innovation to differentiate in the market. Ability to get believers around them and having technical background for creating high-tech differentiated products and services are main reasoning for their establishment success. Although they create funds by their own savings and find outer sources like government grants and investors, founders continue to seek innovative ways for lowering cost and need of outer financial needs. They also look for prize oriented incubator and startup challenges, freelance jobs and outsourcing projects to successfully deliver company's service into market. During growth phase, Turkish startups use different operational metrics for monitoring business closely. Their definition of success understanding mostly based on expanding their customer base and gaining market share as possible as soon. Although they use general metrics for their financials such as revenue and recurring income, for operational metrics they have many detailed metrics to follow based on company's product or service related usage. Innovation used for two sides of business in this stage. Firstly, for running on low costs, founders seek for free or discounted server usage related support programs. They also apply for government grants to get financial backing for business expenses and continue to use attended incubator programs' offices or shared offices. These methods provide them not only covering some expenses, but also ability to focus solely on startup's main objective: running core business and survive. Secondly, founders use innovation on reaching target customer segments. The new ways they have found for customers are mainly focused on lowering customer acquisition costs, such as trying to create new channels like social media and networking websites and cold calling, that haven't tried before for specific business orientation. Creating business partnerships between related businesses and processes to create referral word of mouth machine to supply customers are heavily aimed application among startups in growth stage.

Determining absolute lines between lifecycle phases is a very hard task. Interviewed startups mostly in between growth and stabilization stages which are partly overlapped. In stabilization phase, successful Turkish startups mainly focus on methods to retain previous customers and continue gaining new with lower costs. Operation related metrics followed for retention rates and forecasting future if it is seeming healthy. They plug new processes for lost customers to re-gain, such as auto calling systems to find out reason behind leaving. Regular face to face and direct calls to monitor customer satisfaction is mostly used among interviewees. Co-founders follow their previous stage behaviors to cut expenses and keep outer financing needs lower for possibility of necessity on the way. Besides stage based repetitive actions, interviewed co-founders states that, common reason behind their success is related to their self-motivation, ability to handle stress and suffering, dedicating themselves to each step and gathering believers around them. Founders' motivation on applying methods without caring their efforts, lead them to establish, innovatively differentiate and run business at lower costs, gaining and retaining customers objectives become alive and executed successfully. Trying methodologically find working methods and own them with motivation is seemed key winner indicator.

This study conducted by ten startups that operates in Turkey and based on general lifecycle stages. Due to cultural differences on handling business and entrepreneurs' state of mind, conducting similar approached study for other countries could produce varied results. Keeping cultural effect in mind, this study also could be applied on many geographies to enrich startup success focused researches. Future researchers may also consider extend and validate this study's discovered information by applying quantitative methods by broadly participated surveys on focusing specific stage, business type and also with different limitations to enrich researches for Turkish startup ecosystem.

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