Content Marketing in Online Marketing Strategy and IT Startups: Case Study of Five Portuguese and Four Egyptian Tech Startups

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A dissertation submitted in partial fulfillment of the requirements for Master in Management (MiM)

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2015
**Biographical Introduction**

Dina M Mansour. An Egyptian female who came to Portugal in late 2013 to pursue her master’s study. She won an Erasmus Mundus Scholarship: Fatima Alfihi program. She holds two bachelor degrees in business, one from Egypt, Suez Canal University and one from USA, Rochester Institute of Technology.

Dina had the pleasure to work in many fields during her professional career. Her experiences include teaching, training, marketing and sales consulting, research and reporting, in addition to translation. She worked mainly with multinational companies and organizations.

In Portugal she worked as a short-term consultant in Sonae S.A. and a startup in UPTEC. It was through UPTEC that she developed deep interest towards helping IT Startups and tech entrepreneurs given their distinctive criteria.

Living in Portugal and Europe has certainly taught Dina a lot and showed her an interesting part of the world. She was lucky to deal with many cultural backgrounds and this added more experiences to her repertoire.

She intends to pursue her PhD in management, the field of Startups in Emerging Economies. She feels she can help many entrepreneurs in Egypt and other emerging markets to harness their core capacities and build their business ideas, even with their struggling conditions.
Acknowledgment

Thanks to Fatima al Fihri Erasmus Mundus Scholarship program by the European Union, without your financial help, it wouldn’t have been possible.

Thanks to Mr. Ricardo Martins who opened my eyes to the whole world of Content Marketing, I didn’t know it existed before your guidance and I fell in love with the field only after you have inspired me.

Heartfelt thanks to Prof. Luís Cardía. His collaboration provided an interesting turn to this research in addition to the valuable knowledge given his a rich field experience.

Similar thanks to Mr. Fady Ramzy. In spite of his tight schedule, he made time to provide his much valued input and rich expertise which contributed greatly to this research.

Thanks to the busy entrepreneurs who made time for me and allowed me to interview them. They provided me with all the information I needed without holding back and for that I will always be thankful.

Thanks for my supervisor Prof. Hortensia, you were a mother to me before you were an academic supervisor and I am grateful I had the opportunity to work with you.

Thanks to my mentor Robert Croog. Your constant guidance and unlimited giving helped me more than the words can say.

Thanks to my friends who have been there in my hardships before my prosperity. Fatin Hamza, Ahmed ElKhouly, Seham Nazih, Yosr Allouche, and Paulo Silva. I will forever be in your debt.

MANY and SPECIAL thanks to my parents and sisters. You were not physically present but that didn’t stop you from always supporting me and taking care of me.

ربي يخليك ييا امي ومحيمنيش من حنينك ابدا وافضل طول عمرتي عايشة بحسك في الدنيا وفلك الوعاسع

And for the only man I love..I can’t wait to start my life again with you.
Abstract

Content Marketing (CM) is a new concept in marketing that hasn’t been adopted in the theory yet. Most businesses adopt at least one of its tools, despite of not being aware of its practice. The purpose of this study is to explore how the Content Marketing (CM) can be applied in SMEs, particularly in technology-based startups (IT Startups). Compared to SMEs and startups in general, IT Startups are insufficiently studied in the literature. An initial framework based on literature review was constructed to illustrate the relationship between the practice of CM and IT Startups, considering their specific characteristics.

Then an empirical research was carried out to understand realize in which way IT Startups are using marketing and what opportunities can CM provide them. A multiple case study has been implemented. Thirteen interviews were carried out in total. The sample included high-tech startups, low-tech startups and experts in the field both in Portugal and in Egypt.

The study showed that: Content Marketing as a concept is still unknown by most companies, the entrepreneurs with training management are more aware of the importance of marketing than their counterparts with technological training and, finally, the lack of skills in the area of marketing in technology-based startup is a greater difficulty than the limited financial resources. There were no significant differences between companies of both countries.

Finally the study concludes with a proposal of a framework for the application of Content Marketing in technology-based Startup. Practices of monitoring and evaluation were also presented.
Resumo

O Content Marketing (CM) é um novo conceito na área do marketing que ainda não foi consagrado pela academia. A maioria das empresas adota pelo menos uma das suas ferramentas, ainda que não de forma consciente. O objetivo deste estudo é explorar como é que o Content Marketing (CM) pode ser aplicado nas PMEs, em particular nas startups de base tecnológica. Em comparação com as PME e as startups em geral, as Startups de base tecnológica não estão suficientemente estudadas na literatura. Um framework inicial com base na revisão bibliográfica foi construído para ilustrar o relação entre a prática do CM e as IT Startups, atendendo às suas características específicas.

De seguida, uma pesquisa empírica foi realizada para perceber de que forma as startups de base tecnológica estão a usar o marketing e quais as oportunidades que o CM lhes pode proporcionar. Foi usado um estudo de caso múltiplo tendo sido realizadas treze entrevistas no total. A amostra incluiu high-tech startups, low-tech startups e especialistas da área tanto em Portugal como no Egito.

O estudo evidenciou que o CM enquanto conceito ainda é desconhecido pela maioria das empresas, que os empresários com formação em gestão têm mais consciência da importância do marketing do que os seus homólogos com formação tecnológica e, finalmente, que a falta de competências na área de marketing na startup de base tecnológica representa uma dificuldade maior do que os recursos financeiros limitados. Não se observaram diferenças significativas entre as empresas dos dois países.

Finalmente o estudo termina com a proposta de um framework para a aplicação do content Marketing na StartUp de base tecnológica. Práticas de monitorização e avaliação foram também apresentadas.
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1. Introduction

1.1. Content Marketing Background
In 1891, August Oetker, a German pharmacist, developed Backin baking powder at his pharmacy. He published special recipe booklets and printed recipe suggestions on the packaging to help cooks. The goal was to communicate the quality and reliability of this brand-name product (Oetker.de, n.d.). In 1895 John Deere for heavy equipment launched a consumer magazine “The Furrow” to give farmers agriculture tips. The Furrow magazine is the first example of corporate storytelling. The magazine was distributed for free to educate farmers on new technology and how they could be more successful business owners (Gardiner, 2013; Pulizzi, 2012a). Then in 1900, Michelin, the tire company, launched its free-of-charge guide to motorists to improve mobility and facilitate their travels. It provided a handful of practical information and tips, such as how to use and repair tires (L’ACGCM, 2009). As it appears, manufacturers have been using educational content for a longtime.

The phrase “Content Marketing” was officially used for the first time in 1996 by John F. Oppedahl at the American Society for Newspaper Editors (Doyle, 1996; Stevens, 2014). In 2010 the Content Marketing Institute (CMI) was born. It was founded by Joe Pulizzi, who was described by a higher-up from Kraft Foods as the “the godfather of our burgeoning profession of Content Marketing.” (Fleischer, n.d.). Marketers today agree that content is nothing new. It has been used as a marketing tool for a long time in things like white papers, advertorials and case studies (Basney, 2014).

Businesses may not have a documented or verbal Content Marketing (CM) strategy but they are definitely engaged in CM (Content Marketing Institute and MarketingProfs, 2015; Kho, 2014). CM has different tools which are deployed across several types of media, all will be explained shortly.
While performing the empirical research, the author of this study had the pleasure to interview Expert Luís Cardía from Porto Business School as an expert to validate findings from the case studies.

One of his most important observations regarding the newness of Content Marketing is that “The reason CM hasn’t been discussed in the academia is that it hasn’t been adopted or validated yet by veteran academics because it is a newborn discipline, it is practiced only by field practitioners and it hasn’t been tested on the academic level yet. Relationship marketing was a novice discipline as well but it has been adopted by academics. It is based a lot on the art of telling a story and building a brand through telling a story. However, CM is practiced by various field practitioners without knowing the concept and many academics as well talk about some of its techniques without referring to the concept by its known name, i.e. CM.”

1.2. High-Tech SMEs Background
In recent years, high-tech SMEs in particular have scored high on EU policy agenda due to their key role in facilitating the ‘knowledge-based’ or ‘smart’ economies (Gliga and Evers, 2010). A clear-cut and broadly accepted definition for high-tech SMEs does not exist, and definitions of the high-tech firms remain vague as the notion of high technology is ambiguous. Hence a broadly accepted definition for high-tech SMEs does not exist, neither in the academic area nor in economic policy in general (European Commission, 2002; Grønhaug and Möller, 2005).

High-tech SMEs are usually highly innovative and/or using sophisticated and complex production technologies. They pursue an innovation strategy to win a technology race in a new niche and attempt to gain competitive advantage by being the first to develop and exploit new unproven technologies. High-tech innovative startups are also usually characterized by high levels of uncertainty as the core products and technologies around which they are built are of unknown value. Those firms are subject to complex dynamic processes which defy attempts at prediction embodied in business conjectures, i.e. uncertainty. For example, there is insufficient information to understand the environment
or for investors to understand the new firm with an emerging technology. (Burton et al., 2002; European Commission, 2002; Garnsey and Heffernan, 2003; Gliga and Evers, 2010; Mohr et al., 2009 in Gliga and Evers, 2010).

Grinstein & Goldman (2006) drew three main characteristics to identify a technology firm from other types of firms: First, the deep involvement in and orientation towards R&D activities. Second, innovativeness and entrepreneurship are key traits in the organizational conditions. Finally, corporate-culture and work relations are usually informal, open and cooperative.

Gliga & Evers (2010) held a study which proposed a research framework to capture the strategic marketing issues in high-tech SMEs, and identified some key strategic marketing challenges facing high-tech SMEs. Their study’s conclusion is that a high-tech firm must transform their internal capabilities and transform from being an initially technology-driven firm to a market-driven firm after having tested its applications and found the most successful market opportunities to satisfy the customers’ unique requirements.

1.3. Content Marketing and High-Tech SMEs: The Gap
Let’s begin by reviewing the literature in regards to Content Marketing (CM). The term content was observed to indicate several meanings other than the direct CM concept. Content in the literature was heavily examined in relation with Social Media as important content platforms (Content Communities). Followed by Social Media, content was discussed relating to website design, digital content, and User-Generated Content (UGC).

Kaplan & Haenlein (2010) talked about Content Communities as the platform where text and/or video media content between users is shared. Kietzmann et al. (2011) formulated an integrative framework for companies to effectively use Social Media (Facebook, YouTube and LinkedIn). Forouzandeh et al. (2014) conducted a study through data mining on Facebook. CM was defined using Pulizzi’s definition in collaboration with other author’s on the Content Marketing Institute. The study’s conclusion referred to CM only as “providing customers with information about the brand which isn’t necessarily commercial and this leads customers to trust the content provider”. Content in Yang & Kankanhalli
Rowley (2008) defined Digital CM as “the management process responsible for identifying, anticipating, and satisfying customer requirements profitably in the context of digital content, or bit-based objects distributed through electronic channels. Rowley’s study examined different types of digital content across various industries such as music, news, journalism and more. User Generated Content (UGC) is another content-related term in which consumers are increasingly able to directly influence marketing outcomes by contributing their own user-generated content (Moens et al., 2014; Wunsch-Vincent and Vickery, 2007).

Peer-reviewed publications which address CM as a concept are only a handful. There is also a small group of unpublished Master theses which talked about CM and its relationship to online branding and other variables. For instance Forouzandeh et al. (2014) pointed out that CM is professionally mainly studied by the Content Marketing Association and that several authors started to include it in their research, and others write how-to guides to propose application methods for the concept. This is true. As an attempt to acknowledge the concept there are several academic publications which introduce simple guides. For instance, Eric Gagnon (Gagnon, 2014) from the Business Marketing Institute wrote a simple how-to guide about developing a content-based program and the publication was published in the International Management Review. Larry Light, the CEO of a marketing consulting company wrote a paper about Brand Journalism and how to engage customers with relevant content (Light, 2014), the paper was published in the Journal of
Brand Strategy. Furthermore, Kristin Harad, a Certified Financial Planner, wrote an article about CM strategies to educate and entertain customers. She provided useful strategies for brands to create and share their content. The article was published in the Journal of Financial Planning.

This sample proves that the CM as a concept is examined and studied in the field more than in the theory.

Only two peer-reviewed articles were found to talk about CM as a practice but from a B2B perspective. They will be examined shortly.

We can conclude that the reviewed literature talked about content from a different perspective than the CM concept. It didn’t talk about creating original educating content, utilizing storytelling in developing content in order to build a brand character, decreasing dependability on direct-selling traditional techniques. Most of the literature discusses Social Media as content platforms and how their utilization can help businesses and SMEs. Others provide simple how-to guides and nearly no peer-reviewed publications talk about the real CM. In addition, using the real concept of CM to direct technology-driven businesses to use it wasn’t explored.

The next section reviews the literature concerning Marketing and SMEs.

SMEs in general take their marketing decisions in a usually unplanned and unstructured fashion. Their marketing is generally reactive rather than planned. As they operate in a dynamic environment, SME managers have an inherently innate method of conducting marketing, which enables them to focus on achieving their competitive advantage through added value marketing initiatives (Carson, 1993; Gilmore et al., 2001; Grant et al., 2001; Murray et al., 2002; Stokes and Wilson, 2010).

From traditional marketing to online marketing, academics have been discussing e-commerce and online marketing since the new millennium. There was a considerable effort
towards SMEs and how they can integrate the new e-commerce strategy in their existing marketing strategies.

The studies also included how the internet contributes to building an SME’s competitiveness, B2B e-commerce, the strategic benefits of emailing, adopting the internet in response to the growing customers’ needs and more (Beckinsale et al., 2006; Chapman et al., 2000; Egan et al., 2003; Levy and Powell, 2002; Scupola, 2002).

Gilmore et al. (2007) conducted a study which indicated that e-marketing is still in its infancy for some SMEs in Northern Ireland. Although the use of the internet by SMEs has generally grown since 2000 it appears that its overall impact is still low.

There is an evident shortage in the literature about High-Tech SMEs and High-Tech SME marketing, if compared to the literature about SMEs and SME Marketing. Chell & Allman (2002) and Oakey (2003) talked about SME entrepreneurs who come from a technical background and how they manage their business. Findings were somewhat similar as they concluded that effective entrepreneurship by scientists and engineers is not possible without use of management skills because they clearly assist entrepreneurial success.

We can conclude that the literature was short in term of CM as a practice, and talking about the marketing practices of high-tech SMEs. More importantly, no studies were found which linked both together; i.e. CM as a practice to help high-tech SMEs.

1.4. Research Problem and Motivation

First of all, there is a personal motivation for this research. The Author has her internship at UPTEC, the Porto University-backed incubator. She worked as a junior short-term consultant with an IT Startup, and observations about the marketing practices formed her motivation to pursue this kind of research.

Main observations were about how the tech entrepreneurs are too involved in their technology and more importantly, they cared more about attracting investors and carrying
out presentations more than carrying out actual marketing. Meeting with other entrepreneurs from neighboring startups, the same observation was repeated. i.e. entrepreneurs cared more about attracting investors and early cash-flows with short-term sales strategies rather than real brand-building marketing activities. Furthermore, they were also deeply involved in their technology, extremely motivated about it, and they didn’t really care if their solution makes sense to other people or not.

It was important to know whether those observations were country-specific, i.e. IT startups in Portugal, or industry-specific, i.e. IT startups around the world. Simple search and consulting a few mentors in UPTEC and outside, the problem was observed to be an industry-related kind of problem. i.e. tech entrepreneurs who start and run an IT startup given limited or no business knowledge, limited funds, and extreme motivation towards their solution. All gave the researcher an idea about this problem will be interesting topic of research.

Using her personal networks in Egypt, her home country, since she was a marketing trainer for three years, yielded the same observation; even when the tech entrepreneurs in Egypt work with a lot less resources and more struggles.

So, clearly the researcher’s main motivation was to assist tech startups and tech entrepreneurs regardless of the background, given the challenges they confront in running their businesses.

It was then time to turn to theory and search for similar evidence. Picking up from what other lecturers left off will give a general sense of the problem this research wants to address. After this the specific problem of this study will be specified.

Scupola, (2002) and Gilmore et al., (2007) both held studies to examine the usage extent of internet and e-commerce by SMEs. Both recommended further research to better understand the status quo of the internet adoption among SMEs in Europe, and to investigate how their use of the internet and e-marketing has developed.
El-Gohary (2010) synthesized most of the past literature on Online Marketing and found clear research gaps in the field. The gaps he found mostly concerned Online Marketing performance and adoption by SMEs. To fill such gaps and extend previous studies, according to him, there is a need for conducting more research to investigate the relationship between implementing E-Marketing and small business enterprises’ performance, he suggested.

Csordás and Gáti, (2014) held an exploratory study on using Facebook for Content Marketing by a group of Hungarian food SMEs. According to them, their research bears a certain number of limitations. First, only one small area within the SME sphere was examined (SMEs in food and catering) and their results need confirmation from other fields and sectors.

Finally, Gliga and Evers (2010) proposed a research framework to capture the strategic marketing issues in high-tech SMEs. Their study suggested valuable avenues for future research. Firstly, that more research is required in examining the SMEs management and response to the industry dynamics of shorter and more unpredictable product life cycles. Secondly, use of qualitative methods to provide more narrative insights into this issue was suggested. They suggested case studies as they would yield relevant empirical evidence by investigating this area of research in terms of the most effective marketing tools and techniques to assist high-tech SMEs in accomplishing their goals. Finally, the study encouraged researchers to explore relationships between performance of high-tech SMEs and their marketing resources and capabilities. So we know that current knowledge about the subject matter is insufficient and it is necessary to go further.

Now, let’s specify the nuts and bolts of the Research Problem.

**Problem #1:** Content Marketing hasn’t been adopted by academics yet. Perhaps because it is quite new, it hasn’t been endorsed by veteran lecturers yet or that it is somewhat broad and includes various sub-categories such as the types of content and types of media. Hence,
the concept Content Marketing is still a widely unexplored area in the literature pertaining nature, practices, impact and applications.

Problem #2: How Content Marketing can be applied by High-Tech SMEs through integrating it into their modest Online Marketing programs. The World Wide Web is profusely providing young entrepreneurs with endless how-to and self-help guides regarding marketing for the novice entrepreneur.

This study strives to be the first in the academic literature to link the new concept of Content Marketing, from an academically proven viewpoint, to High-Tech SMEs which are an obvious European and global trend nowadays. This type of SMEs has very specific characteristics as this study proves from the literature. Successful technology startups and innovative young companies from the broader reaches of Europe are contributing to the world economy (Mizroch, 2015). Startup Europe Partnership⁠¹ conducted a preliminary study to map the European Startup ecosystem. One of the main findings that tech startups (Software, E-commerce, Mobile) were the most popular and received most funding from investors (Onetti, 2014; PEDALConsulting and Ud’Anet, 2014).

1.5. Research Question
According to what has been demonstrated, the main Research Question of this study is:

“How can IT Startups integrate Content Marketing into their Online Marketing Strategy, given limited business knowledge and limited funds?”

Sub-questions
- What are the main Online Marketing activities carried out by the high-tech startup? Across which types of media?
- What is the extent of familiarity with Content Marketing as a concept?
- What is the extent of developing original content? Across which types of media?
- What challenges seem to be more aching for a high-tech startup? Limited business knowledge or limited funds?

¹ An initiative establish by European commission in 2014 dedicated to developing European startups.
1.6. Related Definitions

In this section, definitions which have been examined across the entirety of the research are stated. Each of which is explained in its relative section.

Content Marketing

Content Marketing as defined by the Content Marketing Institute:

“Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly-defined audience — and, ultimately, to drive profitable customer action.” (CMI, n.d.)

Inbound Marketing

Inbound Marketing as defined by HubSpot:

“Instead of the old outbound marketing methods of buying ads, buying email lists, and praying for leads, inbound marketing focuses on creating quality content that pulls people toward your company and product, where they naturally want to be. By aligning the content you publish with your customer’s interests, you naturally attract inbound traffic that you can then convert, close, and delight over time.” (HubSpot n.d.)

Outbound Marketing

Outbound Marketing as defined by HubSpot:

“Marketing methods where a marketer pushes his message out far and wide hoping that it resonates with that needle in the haystack. Examples include traditional leads-generating methods, trade shows, seminar series, email blasts to purchased lists, internal cold calling, outsourced telemarketing, and advertising.” (Halligan, 2010)

Digital Marketing (DM)

DM as defined by the Digital Marketing Institute (DMI):
“The use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them” (Smith, 2007 in Wymbs, 2011).

DM as defined by the Institute of Direct Marketing:

"Applying these technologies which form online channels to market, that's Web, e-mail, databases, (plus mobile/wireless & digital TV). To support marketing activities aimed at achieving profitable acquisition and retention of customers... within a multi-channel buying process and customer lifecycle. Through recognizing the strategic importance of digital technologies and developing a planned approach to reach and migrate customers to online services through e-communications and traditional communications.” (The Institute of Direct Marketing, 2005 in Chaffey, 2015).

SME

While there is no single uniformly acceptable definition of a small firm (Storey, 1994), in 1971 the Bolton Committee has characterized small firms with three main characteristics:

Firstly, in economic terms, a small firm is one that has a small share of its market. Secondly, it is managed by its owners or part-owners in a personalized way, and not through the medium of a formalized management structure. Thirdly, it is also independent as it isn’t a part of a larger enterprise and that the owner managers are free from outside control in taking their main decisions (Bolton, 1971).

In 1996, a recommendation establishing a first common SME definition was adopted by the European Commission. This definition has been widely applied throughout the European Union. In 2003, the Commission adopted a new definition in order to take account of economic developments since 1996 (European Commission, 2005; Small and Medium Enterprise (SME) - Definitions, 1996). An SME is defined based on number of employees and annual revenues or turnover. A micro firm is a firm that has 0-9 employees and earns less than €2 million in annual sales. A small firm has 0-49 employees and earns less than €10 million; finally, a medium firm as one that has 50-249 employees and earns less than
€50 million. Regarding type, according to the Commission’s report on the new SME definition, most SMEs are autonomous since they are either completely independent or have one or more minority partnerships (each less than 25%) with other enterprises. Other types of SMEs include partner enterprises and linked enterprises.

**IT Startup**

As far as this study is concerned, our proposed definition for an IT Startup is:

“A firm of 4-49 employees which is fully funded by owners or shared to a non-controlling percentage with investors and earns less than €2 million in annual sales. The firm is comprised of a majority of technical employees with a main purpose to produce an innovative and scalable high-tech product or service using innovative high technologies, and it operates in an uncertain environment of unpredictable events.”

**1.7. Expected Contribution**

This study strives to contribute to theory and management practices with its findings. By examining and testing Content Marketing applications, this study wishes to contribute to theory through acknowledging Content Marketing as a concept. Not only acknowledging it as a concept, but also proving its potential through applying it on IT Startups. Furthermore, the conceptual framework established in this study will draw important relationships between the IT Startup given its characteristics and challenges as demonstrated literature and empirical findings and CM as an applicable management practice. Finally, this study can contribute to the theory with its proposed definition for the IT Startup. Given there is no consensus about a given definition.

**1.8. Dissertation Structure**

Following this section, the next chapter will address the Literature Review. First Content Marketing as a concept will be defined, researched and examined in the literature. After this SMEs and high-tech SMEs will be examined and researched in terms of defining
characteristics and marketing practices. An initial theoretical framework which links the two variables and literature gaps is constructed.

The Literature Review chapter is then followed by Chapter 3: Methodology. This study followed a qualitative exploratory multiple-case study approach. The rationale behind the choice was illustrated. The methodology assures data validity and reliability.

After this in Chapter 4: Data Presentation and Chapter 5: Discussion & Analysis, the empirical findings are presented and discussed. The findings are then categorized into themes and linked to the gaps found in the literature. A conceptual framework is constructed to build on the initial theoretical framework and include the findings. Analysis of data is then conducted and finally conclusions in Chapter 6 are drawn. Conclusions will summarize the research project in terms of purpose and findings, then research limitations are discussed along with recommendations for further research.
2. Literature Review

2.1. Content Marketing

2.1.1. Background
After Oetker’s Backin, Deere’s The Furrow, and Michelin’s guide for drivers, in 1904 Jell-O, a then famous gelatin-dessert company, distributed its first recipe book door-to-door to teach housewives about gelatin-based desserts. Salesmen distributed the book for free and suggested creative and useful ways to use its the product. Before this time, Jell-O was basically unknown and unused (Cohen, 2013a; Moon, n.d.). We learn from this that manufacturers have been using educational content and storytelling unofficially for a longtime.

The phrase “Content Marketing” was officially used for the first time in 1996 by John F. Oppedahl at the American Society for Newspaper Editors (Doyle, 1996; Stevens, 2014). Forbes first talked about Content Marketing in 2011. The columnist Susan Gunelius predicted that 2012 will be the year of content if one wants to build its business brand to reach new levels of success in the New Year. She provided some strategies adapted from 30-Minute Social Media Marketing, McGraw-Hill 2010; and Content Marketing for Dummies, Wiley 2011 for businesses to achieve success in Social Media and Content marketing in year 2012 (Gunelius, 2011). In 2012, another columnist wrote an interesting article about five brands that “confirm Content Marketing is the Key to your Customers”. The piece had evidence from the practices of five large brands in various industries educating and engaging customers (Gutman, 2012).

“...Content is critical for us because it’s the currency that drives our relevance and therefore consumer consideration for our brand. And content for us lives first and foremost in the offline world through our hotel guest experience... Then we extend it to online to continue the dialogue with existing guests and their network (our prospects).”

Dan Vinh; VP Global Marketing, Renaissance Hotels at Marriott International. (Gutman, 2012)
2.1.2. Content Marketing Definition

In 2010 the Content Marketing Institute (CMI) was founded by Joe Pulizzi.

Originally a journalist, he has been working in publishing for a long time. He worked with a business media company in Cleveland and for more than seven years he helped advertisers create their own content in custom magazines, newsletters, webinars and white papers, where he relied heavily on Search Engine Optimization, Social Media and lead generation programs. He then started a business to match brands with content agencies and freelancers, and after that he started the CMI with a main goal to advance the practice of Content Marketing (EContent, 2014).

Marketers today agree that content is nothing new. It has been used as a marketing tool for a long time in things like white papers, advertorials and case studies (Basney, 2014).

Content Marketing is defined by the Content Marketing Institute as:

“Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly-defined audience — and, ultimately, to drive profitable customer action.” (CMI, n.d.)

“Content marketing’s purpose is to attract and retain customers by consistently creating and curating relevant and valuable content with the intention of changing or enhancing consumer behavior. It is an ongoing process that is best integrated into a business’ overall marketing strategy, and it focuses on owning media, not renting it.” (CMI, n.d.)

2.1.3. Content Marketing, Inbound Marketing, Outbound Marketing and Digital Marketing

Content Marketing (CM), has been used interchangeably with Inbound Marketing. HubSpot, renowned Inbound Marketing and Sales Software provider, defines Inbound Marketing as:

“Instead of the old outbound marketing methods of buying ads, buying email lists, and praying for leads, inbound marketing focuses on creating quality content that pulls people toward your company and product, where they naturally want to be. By aligning the
content you publish with your customer’s interests, you naturally attract inbound traffic that you can then convert, close, and delight over time.” (HubSpot n.d.)

Brian Halligan of HubSpot also defines Outbound Marketing as

“Marketing methods where a marketer pushes his message out far and wide hoping that it resonates with that needle in the haystack. Examples include traditional leads-generating methods, trade shows, seminar series, email blasts to purchased lists, internal cold calling, outsourced telemarketing, and advertising.” (Halligan, 2010)

Both definitions on Content Marketing and Inbound Marketing highlight the importance of Content, and there are heated debates between HubSpot and CMI all around the cyberspace about who is the subset of the other and who cares about what more than the other (Eridon, 2011; Pulizzi, 2011).

Various field experts shared their opinions about the obvious overlap, Pulizzi for instance thinks they are “pretty much” the same (Pulizzi, 2010), Marcus Sheridan of The Sales Lion, a web marketing guru who promotes generating sales through informational blog posts and videos (Cohen, 2013b), wrote a long article analyzing both parties’ take on the subject and concluded his analysis saying “‘I don’t believe our problem in the world of business and marketing is silly semantics. I also don’t believe the debate of ‘which is a subset of the other’ (inbound or content) means squat either.” (Sheridan, n.d.). In 2009, Mr. Sheridan interviewed Brian Halligan, CEO and co-founder of HubSpot to discuss his latest co-authored book Inbound Marketing, and when he asked him about the difference between CM and Inbound Marketing he said “To me, that’s the big difference between content marketing and inbound marketing: content is a fundamental part of both philosophies, but inbound marketing goes beyond content and extends to every element of the customer interaction.” (Sheridan, 2009). Perhaps the most reasonable view was triggered by Mike Lieberman of Square2 Marketing, an Inbound Marketing agency, he is also a regular contributor to HubSpot’s blog (Lieberman, n.d.). He agreed that both CM and Inbound Marketing interact with each other and rely on each other. “Content is such a big part of inbound marketing that we believe you wouldn’t be able to execute an inbound
marketing program without content marketing. On the other hand, you could have content marketing as part of a traditional outbound marketing program.” (Lieberman, 2013).

In conclusion, however one prefers to refer to use of strategic content creation in any of the customer purchase stages, the conclusion is the two disciplines should be considered as one collective approach (Isca, n.d.).

Now that we established that Content and Inbound marketing generally mean the same thing, we will explore the term Digital Marketing (DM).

DM is another related term as well. The Digital Marketing Institute (DMI) refers to digital marketing as “The use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them” (Smith, 2007 in Wymbs, 2011).

The Institute of Direct Marketing also defined Digital Marketing in 2005 as "Applying these technologies which form online channels to market, that's Web, e-mail, databases, (plus mobile/wireless & digital TV).To support marketing activities aimed at achieving profitable acquisition and retention of customers... within a multi-channel buying process and customer lifecycle. Through recognizing the strategic importance of digital technologies and developing a planned approach to reach and migrate customers to online services through e-communications and traditional communications.” (The Institute of Direct Marketing, 2005 in Chaffey, 2015).

It is worth-mentioning that Wikipedia considers Content Marketing and Search Engine Optimization as activities of Digital Marketing (Wikipedia, 2015).

It is clear now that Digital marketing is a broad term that refers to various and different activities which are deployed to reach audiences via digital technologies.

It was important to talk about Inbound Marketing and Digital marketing as terms which are frequently used whenever CM is mentioned so as to clear out any confusion.
2.1.4. Content Marketing Techniques and Interactive Marketing Media

Even though the term is quite recent, businesses are probably practicing any sort of CM whether they know about it or not. They may not have a documented or verbal CM strategy but they are definitely engaged in CM (Content Marketing Institute and MarketingProfs, 2015; Kho, 2014).

The most famous examples of CM tactics are Blogs, Microsites, eNewsletters, Infographics, Social Media Conversations, Podcasts, Print Magazines, Video and Visual Content, Webinars, Web Content, eBooks, White Papers and a lot more (Content Marketing Institute and MarketingProfs, 2015; Content Marketing Institute, n.d.; Lewis, 2011).

Those different tactics are mainly deployed across three types of media; Paid, Owned and Earned. This trio has lately become quite popular in the interactive marketing field, and it is a well-established view of the marketing communications ecosystem (Basney, 2014; Corcoran, 2009; Newman, 2014a). A successful business always builds its marketing ecosystem with paid and owned media because earned media hardly works alone (Newman, 2014a). Table 1 presents the definitions and different examples of each.

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paid</strong></td>
<td>The business pays for this type of media/channel</td>
<td>Google AdWords, SEO (Search Engine Optimization), PPC Campaigns (Pay-Per-Click), Display Ads, Paid Search</td>
</tr>
<tr>
<td><strong>Owned</strong></td>
<td>Channel control and owned by the business. Content that is given away in hope to win new business leads.</td>
<td>Branded Content, Website, Blog, Social Media Platforms</td>
</tr>
</tbody>
</table>

Table 1: Paid, Owned and Earned Media
Customers nowadays are five times more dependent on digital content than they were five years ago when it comes to researching and making a purchase decision (Nielsen and InPowered, 2014). The buyer’s journey has changed as consumers do more of their own research, and they engage with more content to support their decision-making (Newman, 2014b).

In 2014, Nielsen issued a study commissioned by InPowered, an agency which helps brands educate customers through engaging content, titled *The Role of Content in the Consumer Decision Making Process*. The study examined the effect of content of various types of products (including technology products) on 900 respondents in a lab setting. The study’s objective was to discover the impact of three types of content; Branded Content, Expert Content and User-Generated Content, on creating product awareness and increasing the purchase consideration, i.e. the buyer’s journey across the Consumer Purchase Process as developed by Schiffman and Kanuk:

**Stage 1:** Familiarity with a new product, **Stage 2:** Affinity toward a brand or product, **Stage 3:** Purchase consideration of a brand or product (Schiffman and Kanuk, 2007).

The study revealed the strength of expert generated (influencer) content and that experts are critical at the beginning of a purchase cycle. Branded content also becomes more powerful the further customers get into the sales cycle. While expert content is always preferred, likely for its neutrality, as customers become closer to buying they tend to put
greater trust in a brand delivered message (Newman, 2014b; Nielsen and InPowered, 2014).

The study recommended that brands implement a blended content strategy to better serve the information needs of consumers. Accordingly the best approach is to begin with trusted content from credible, third-party experts in order to establish a foundation of trust with the consumers. And once trust is established, branded content is utilized to further connect, engage and encourage customers to generate user reviews, hence continuously utilizing more trusted content (BusinessWire, 2014; Nielsen and InPowered, 2014). It is worth-mentioning that his study’s findings can be applied to high-tech enterprises just as any other enterprise type.

Accordingly, as content continues to grow as a part of the buyer’s journey, brands will continue to need to find the right-mix of influencer (expert) and branded content. i.e. More content generally offers more exposure and it is more important that brands place content that buyers will trust in front of them at the right time in the cycle (Newman, 2014b; Nielsen and InPowered, 2014).

“When it comes to determining which content to utilize to best educate consumers, it is not an either/or proposition,” said Pirouz Nilforoush, co-founder and President of inPowered. “But by beginning with a solid foundation of trust built on trusted content from credible, third-party experts, all other content will have a greater impact.” (BusinessWire, 2014; Nielsen and InPowered, 2014).

In conclusion, CM techniques and other traditional tools should be used and deployed on the three types of media mentioned above in order for a successful business to build a comprehensive communications marketing ecosystem.

2.1.5. Content Marketing and Storytelling
Companies are increasingly recognizing the need to use artful narrative, also known as storytelling, as a tool to achieve business purposes and communicate and connect with customers, not an end or for a desired entertainment. Hence focus needs to be kept on the
business purpose being pursued with the tool, as well as on the different narrative or storytelling patterns associated with different purposes. (Denning, 2006; Manktelow, n.d.).


Teaching stories are the ones that teach a moral or provide an example of a relevant experience. They show how a change in behaviors or perspectives can transform the receiver of the story and to illustrate a situation. (Harmon, 2008; Simmons, 2007a).

Denning (2006) designed eight different storytelling patterns for businesses to be used for different objectives, one of which is Sharing Knowledge through compelling stories. Denning explains that this approach leads to generating understanding not necessarily an action; which is the main point of CM practices. Knowledge-sharing stories provide an engaging experience to the customer without a direct sales call to action.

From a marketing strategy standpoint, storytelling can effectively retain existing customers and attract potential ones, as it can become a new business model on its own. Studies on the development of a brand as a supporting actor (persona-focused storytelling) indicate the importance of developing a compelling story for building brand-customer relationship. Storytelling helps providing valuable input when designing effective marketing strategies and is an essential to successful branding. When it comes to creating a powerful brand narrative, the brand’s character comes first, and all other elements unfold from there (Herskovitz and Crystal, 2010; Lee and Shin, 2014; Pulizzi, 2012b; Woodside et al., 2008).

Organizations are hiring individuals with storytelling backgrounds such as journalists to help fine tune the CM process. CM is the idea that all brands, in order to attract and retain customers, need to think and act like media companies, and as CM and storytelling become
a larger part of the marketing organization in general, the marketing department is evolving and transforming itself into more of a publishing department (Pulizzi, 2012b).

In conclusion, business storytelling is utilized to build a brand character, a customer-brand relationship, in addition to providing valuable inputs to the marketing strategy and understanding through its contribution to building the brand identity and positioning. Consequently, in large enterprises marketing departments are becoming publishing houses on their own as they produce content, and this means the act of hiring marketing professionals itself will require a storytelling background of any sort. Hence we learn than when storytelling is employed in CM, it helps establish the brand position from both the internal and external perspectives.

2.1.6. Content Marketing in the Literature: The Gap

The term Content Marketing in the literature wasn’t observed to be necessarily congruent with the one suggested by the mentioned reports and researches. Content Marketing in Social Media was perhaps the most type of CM discussed in the literature.

Kaplan & Haenlein (2010) talked about Content Communities as the platform where text and/or video media content between users is shared. Content Communities offer a wide array of content to users making them attractive channels for firms. Examples include YouTube for sharing videos and Slideshare for sharing PowerPoint presentations. Furthermore, the term Social Media was defined as a group of Internet-based applications that build on technological foundations of Web 2.0² and allow the creation and exchange of User-Generated Content (UGC). This interesting study provided ten pieces of advice to companies about using Social Media. One of the lessons for the company was to be interesting in terms of developing content that clicks with customers after having listened to them and developing valuable content that fits their expectations (Kaplan and Haenlein, 2010).

² The platform whereby content and applications are continuously modified by all users in a participatory and collaborative fashion.
Kietzmann et al. (2011) formulated an integrative framework for companies to effectively use Social Media (Facebook, YouTube and LinkedIn) as well. Social Media introduce substantial changes to communication between organizations and individuals and so firms should change their communication landscape by understanding that customers want firms to listen, appropriately engage, and respond. One of the interesting recommendations of the study is that businesses should curate social media interactions and content. For example creating “mash ups” of content that already exists, combining it from a variety of sources such as research from other websites.

It is worth mentioning that the term Content Curation has been used by many marketers. It was first defined in 2009 by (Bhargava, 2009), a famous marketing consultant. He predicted it will be the next big thing related to social media. Bhargava defined a content curator as “someone who continually finds, groups, organizes and shares the best and most relevant content on a specific issue online”.

Forouzandeh et al. (2014) conducted a study through data mining on Facebook. Content Marketing wasn’t clearly defined and it was referred to only as “providing customers with information about the brand which isn’t necessarily commercial and this leads customers to trust the content provider”. It was concluded by the study that Facebook is a suitable media for dispersing content that can rapidly spread to customers and that CM can be combined with other sorts of marketing for better results. Csordás & Gáti (2014) also conducted a data mining study on Facebook among small businesses in the catering and food industry in Hungary. Content provided and shared by the businesses on Facebook was monitored and analyzed. The study concluded that diffusing content, without defining what content it, generally acts as a facilitator to involve fans by offering for them a space to manifest themselves in company-related topics.

Content in Yang & Kankanhalli (2014)’s study was also referred to the message content in Social Media. A research model was proposed based on the media richness theory and other theories to examine the impact of message content and format on customer
engagement and brand awareness. The study concluded that small online businesses should utilize Social Media and choose appropriate message strategies to enhance customer engagement and improve brand impression.

Content was used in the literature as well from a “digital” sense, i.e. website content and design and digital content. Rahimnia & Hassanzadeh (2013) conducted a study on Iranian small businesses to examine the impact of the website content dimension on e-marketing effectiveness. Findings supported the ideas that website content, again without giving it a clear definition, has an effect on e-marketing and e-trust and that e-trust plays an important role in e-marketing effectiveness. Simmons (2007) also discussed content from a website design point of view as well. In his synthesized framework about internet branding, he collected the four main pillars of branding online from the literature: understanding customers, marketing communications, interactivity and content. The study pointed out that it is important that a website’s content is effective in order to assist customers find their target topics and undertake any particular transaction. Furthermore, Taylor & England (2006) said that from a website marketing perspective, the more accessible website content relating to products and services offered, the more likely that such products and services will be purchased by the consumer.

Investigating more literature, Digital Content was examined extensively by Rowley (2008). Her adopted definition is:

“Digital content and digital products are conceptualized as bit-based objects distributed through electronic channels”. According to her, examples of digital products include e-newspapers, e-books, databases, online directories, music downloads and more. Digital Content Marketing, per se, focuses on the nature of the product that is being marketed, and the consequences of this for marketing opportunities.

Accordingly Digital Content Marketing is defined as “the management process responsible for identifying, anticipating, and satisfying customer requirements profitably in the context of digital content, or bit-based objects distributed through electronic channels. Rowley’s
study examined different types of digital content across various industries such as music, news, journalism and more. The study mainly outlined the various characteristics of digital content which provide it with its unique value and challenges of perceiving this value as far as consumers are concerned.

Content was also used in Halbheer et al. (2014)’s study to denote the optimum Digital Content Strategy for publishers who provide digital information goods, such as newspapers, and how much of their content should be free, sampled and/or paid in order for them to be able to achieve profits. The study discovered that it can be optimal for the publisher to generate advertising revenue by offering free samples even when sampling reduces both prior quality expectations and content demand.

It is worth mentioning that when it comes to digital content, usually free content is what is preferred and expected from the customer. Consumers on the web are accustomed to free content and have become very price-conscious (Swatman et al., 2006). In this study online news and music business markets across ten European countries were examined. The study concluded that becoming content providers with an innovative approach to advertising is the most promising online business model.

The literature examined the meaning and role of User Generated Content as well, and its relationship to Social Media. User Generated Content (UGC) is another content-related term in which consumers are increasingly able to directly influence marketing outcomes by contributing their own user-generated content. Content is considered a UGC when is published on a publicly accessible website or on a page of social networking site that is accessible to a selected group of people (Moens et al., 2014; Wunsch-Vincent and Vickery, 2007). Online product review websites that allow users to evaluate existing products and share their opinions are an example. In fact, nowadays there is a shift in marketing, whereby firms are devolving their power away from their own control towards consumers who are interested in sharing their opinions. The boundaries between firms and consumers are becoming blurry as users seek to become active contributors rather than passive
recipients (O’Hern and Kahle, 2013). The web became a participative environment where consumers have gained influence and credibility as content creators. They are now contributing to the online universe in a wide variety of ways, including user reviews, and such UGC has important implications for marketers (Liu-Thompkins and Rogerson, 2012).

After reviewing the several types of content in the literature, it is worth-mentioning that only two peer-reviewed articles were found to talk about CM as a practice but from a B2B perspective. Holliman and Rowley (2014)’s paper about B2B digital content marketing. The paper considered B2B CM as an “inbound marketing” technique which offers a solution to the declining effectiveness of traditional interruptive marketing techniques. Its effects are demonstrated across the web page, social media and value-add content, and it is perceived to be a useful tool for achieving and sustaining trusted brand status. The authors agree that creating content that is valuable to B2B audiences requires brands to take a "publishing" approach, which involves developing an understanding of the audience's information needs, and their purchase consideration cycle. Content marketing converts "selling" to "helping", which in turn requires different marketing objectives, tactics, metrics and skills to those associated with more traditional marketing approaches.

Another paper was written by Järvinen and Lipiäinen, (2015). Their study pointed out how the B2B customer purchasing decisions has motivated B2B sellers to create digital content that leads potential buyers to interact with their company. This trend has engendered a new paradigm referred to as “the Content Marketing paradigm”. The study investigated the organizational processes for developing valuable and timely content to meet customer needs and for integrating Content Marketing with B2B selling processes.

In conclusion, after reviewing the literature, the term content was observed to indicate several meanings other than the direct Content Marketing concept. Content in the literature was heavily examined in relation with Social Media as important content platforms (Content Communities). Followed by Social Media, content was discussed relating to website design, digital content, and UGC. Aside from some simple how-to guide about
using CM and (only) two papers talking about CM and B2B businesses, it is clear now that
literature didn’t talk about creating original educating content, developing own editorials,
utilizing storytelling in developing content in order to build a brand character, or the power
of providing knowledge and decreasing dependability on direct-selling traditional
techniques; i.e. using Content Marketing as a formal strategy.

Even if some of the mentioned activities were discussed, they were talked about within
Social Media limits, not using owned media like blogging for instance. The literature also
didn’t talk about the importance of expert views and how unbiased content from a
knowledgeable source is respected by clients. This can be translated to the power of
educational unbiased content which is created to provide free valuable knowledge to the
customer without a direct sales call-to-action. This study wants to address CM from a high-
tech SME standpoint but in an academic manner in order to provide practitioners with
useful lessons, which are scientifically proven and also to contribute to the theory.

2.2. SMEs

2.2.1. Background and Definition
In the enlarged European Union of 25 countries\(^3\), some 23 million SMEs provide around 75
million jobs and represent 99\% of all enterprises (European Commission, 2005). In UK,
according to Department for Business Innovation & Skills, at the start of 2014, 5.2 million
small businesses accounted for 48\% of UK private sector employment (Dbis, 2014).

While there is no single uniformly acceptable definition of a small firm (Storey, 1994), in
1971 the Bolton Committee has characterized small firms with three main characteristics:

Firstly, in economic terms, a small firm is one that has a small share of its market.
Secondly, it is managed by its owners or part-owners in a personalized way, and not
through the medium of a formalized management structure. Thirdly, it is also independent

\(^3\) At the time the report was written, year 2005.
as it isn’t a part of a larger enterprise and that the owner managers are free from outside control in taking their main decisions (Bolton, 1971).

In 1996, a recommendation establishing a first common SME definition was adopted by the European Commission. This definition has been widely applied throughout the European Union. In 2003, the Commission adopted a new definition in order to take account of economic developments since 1996 (European Commission, 2005; European Commission, 1996). An SME is defined based on number of employees and annual revenues or turnover. A micro firm is a firm that has 0-9 employees and earns less than €2 million in annual sales. A small firm has 0-49 employees and earns less than €10 million; finally, a medium firm as one that has 50-249 employees and earns less than €50 million. Regarding type, according to the Commission’s report on the new SME definition, most SMEs are autonomous since they are either completely independent or have one or more minority partnerships (each less than 25%) with other enterprises. Other types of SMEs include partner enterprises and linked enterprises.

Mccartan-quinn & Carson (2003) define a small firm as: An independent owner business organization of limited significance within the industry, employing less than one hundred employees, where the owner creates a highly personalized management style. This style impacts upon the type and nature of marketing which is different in a variety of characteristics to large company marketing.

In conclusion, we can take away four main characteristics of a small firm:

a. A small number of employees.

b. Management is conducted in a fairly non-formal, personalized manner.

c. Mainly independent in ownership, except for occasional non-controlling partnerships.

d. On its own, it has a limited significance within the industry.
2.2.2. High-Tech SMEs Background and Definitions

In recent years, high-tech SMEs in particular have scored high on EU policy agenda due to their key role in facilitating the ‘knowledge-based’ or ‘smart’ economies (Gliga and Evers, 2010). A clear-cut and broadly accepted definition for high-tech SMEs does not exist, and definitions of the high-tech firms remain vague as the notion of high technology is ambiguous. Hence a broadly accepted definition for high-tech SMEs does not exist, neither in the academic area nor in economic policy in general (European Commission, 2002; Grønhaug and Möller, 2005). Furthermore, the notion that is regularly associated with the term high-tech SMEs is surrounded by a diversity of similar terms such as: new technology-based firms (NTBFs), innovative SMEs, R&D intensive companies, or IT-enterprises.

High-tech SMEs are usually highly innovative and/or using sophisticated and complex production technologies (Gliga and Evers, 2010). They pursue an innovation strategy to win a technology race in a new niche and attempt to gain competitive advantage by being the first to develop and exploit new unproven technologies (Burton et al., 2002). High-tech markets are also usually characterized by high levels of uncertainty (Mohr et al., 2009 in Gliga and Evers, 2010) as the core products and technologies around which they are built are of unknown value (Burton et al., 2002), in addition, the pursuit of opportunities before the entrepreneurs have the resources required to realize them makes them particularly vulnerable to uncertainty (Garnsey and Heffernan, 2003). Markets of the new firms of emerging industries are characterized by a combination of market and technological uncertainty, and competitive volatility as well (Garnsey and Heffernan, 2003; Mohr et al., 2009 in Gliga and Evers, 2010; Moriarty and Kosnik, 1989 in Gliga and Evers, 2010). Furthermore, those firms are subject to complex dynamic processes which defy attempts at prediction embodied in business conjectures, i.e. uncertainty (Garnsey and Heffernan, 2003). For example, there is insufficient information to understand the environment or for investors to understand the new firm with an emerging technology (European Commission, 2002).
According to the US Bureau of Labor Statistics study published in 2005 which classified high-tech industries, a high-tech industry is defined by the presence of four factors: a high proportion of scientists, engineers, and technicians; a high proportion of R&D employment; production of high-tech products, as specified on the Census Bureau list of advanced technology products (USCensusBureau, 2012); and the use of high-tech production methods, including intense use of high-tech capital goods and services in the production process (Hathaway, 2013).

In 2007 the Organization for Economic Co-operation and Development (OECD) defined the ICT sector as: The production (goods and services) of a candidate industry must primarily be intended to fulfill or enable a function of information processing and communication by electronic means, including transmission and display (Roberts and Spiezia, 2009). Both the US Bureau of Statistics and OECD classified the high-technology or technology-intensive industries. Figures 1 and 2 below demonstrate both classifications.

**Figure 1: Classification of High-Technology Industries**

<table>
<thead>
<tr>
<th>NAICS Code</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Communications Technology (ICT) High-Tech</td>
<td></td>
</tr>
<tr>
<td>3341</td>
<td>Computer and peripheral equipment manufacturing</td>
</tr>
<tr>
<td>3342</td>
<td>Communications equipment manufacturing</td>
</tr>
<tr>
<td>3344</td>
<td>Semiconductor and other electronic component manufacturing</td>
</tr>
<tr>
<td>3345</td>
<td>Navigational, measuring, electromedical, and control instruments manufacturing</td>
</tr>
<tr>
<td>5112</td>
<td>Software publishers</td>
</tr>
<tr>
<td>5161</td>
<td>Internet publishing and broadcasting</td>
</tr>
<tr>
<td>5179</td>
<td>Other telecommunications</td>
</tr>
<tr>
<td>5181</td>
<td>Internet service providers and Web search portals</td>
</tr>
<tr>
<td>5182</td>
<td>Data processing, hosting, and related services</td>
</tr>
<tr>
<td>5415</td>
<td>Computer systems design and related services</td>
</tr>
<tr>
<td>Miscellaneous High-Tech</td>
<td></td>
</tr>
<tr>
<td>3254</td>
<td>Pharmaceutical and medicine manufacturing</td>
</tr>
<tr>
<td>3364</td>
<td>Aerospace product and parts manufacturing</td>
</tr>
<tr>
<td>5413</td>
<td>Architectural, engineering, and related services</td>
</tr>
<tr>
<td>5417</td>
<td>Scientific research-and-development services</td>
</tr>
</tbody>
</table>

Figure 2: Classification of Manufacturing Industries by Technological Intensity

High-technology industries
- Aircraft and spacecraft
- Pharmaceuticals
- Office, accounting and computing machinery
- Radio, TV and communications equipment
- Medical, precision and optical instruments

Medium-high-technology industries
- Electrical machinery and apparatus, n.e.c.
- Motor vehicles, trailers and semi-trailers
- Chemicals excluding pharmaceuticals
- Railroad equipment and transport equipment, n.e.c.
- Machinery and equipment, n.e.c.

Medium-low-technology industries
- Building and repairing of ships and boats
- Rubber and plastics products
- Coke, refined petroleum products and nuclear fuel
- Other non-metallic mineral products
- Basic metals and fabricated metal products

Low-technology industries
- Manufacturing, n.e.c.; Recycling
- Wood, pulp, paper, paper products, printing and publishing
- Food products, beverages and tobacco
- Textiles, textile products, leather and footwear

(As defined by the OECD and accepted by the UN and the EU (OECD, 2011))

In conclusion, we can take away three main characteristics of a high-technology small firm:

a. Highly innovative and complex technologies are used to produce and distribute another highly-innovative technology, in form of high-tech product or service, which will help the firm gain its main competitive advantage.

b. The firm is surrounded by a great deal of uncertainty and unpredictability in terms of the technology being developed, market where the technology will be distributed and information available about the environment.

c. There is a high proportion of technical employees such as engineers, scientists and technicians.

2.2.3 Startup definition: What is a Startup?

Steve Blank, the Silicon Valley renowned serial entrepreneur and academician, has an interesting take on differentiating between a small business and a startup. He said that an SME entrepreneur is a self-employed person who “has a life”, they are lifestyle business which are done by “normal people”, Silicon Valley entrepreneurship on the other hand is characterized by “insane” founders who wake up every morning saying “I don’t just want to be self-employed, I want to take over the universe, I want to change the world and do
Blank thinks this is the first major distinction between scalable startups or technology clusters and small businesses (Blank, 2011).

According to *A Tale of Two Entrepreneurs: Understanding Differences in the Types of Entrepreneurship in the Economy*, a report by the Kauffman Foundation, there is a distinction between Innovation-Driven Enterprises (IDEs) and SMEs. An IDE is an enterprise that pursues global opportunities based on introducing consumers to new innovations that have a clear competitive advantage and high growth potential. An SME, however, is an enterprise that serves local markets with traditional, well-understood business ideas and limited competitive advantage. According to the report SME businesses have no chance of becoming IDEs, because this shift requires a clear-sighted analysis competitive advantage, plausible regional and global market opportunities, and a match between the current team and the needs of the future IDE business (Aulet and Murray, 2013).

It is worth-mentioning that the Kauffman Foundation is highly known for Kauffman Index for Entrepreneurial Activity. The foundation is known for helping new businesses and it tracks their performance year by year. The Kauffman Firm Survey matches the US economic growth with the activity of the tracked startups (Fairlie et al., 2015). Furthermore the survey results have been cited in various academic journals such as Review of Economics and Finance, International Journal of Entrepreneurship and Small Business, Small Business Economics, and others. Examples of publications are Coleman and Robb, 2011; Hall and Sobel, n.d.; Minola et al., 2013; Reynolds, 2008; Zaleski, 2011 and many others.

Steve Blank defines a startup as ”a temporary organization designed to search for a repeatable and scalable business model” (Blank, 2010). Startup companies are generally newly created, are innovation in a process of development and research for target markets. The term became popular internationally during the dot-com bubble when a great number of dot-com companies were founded (Blank and Dorf, 2012).
Furthermore, in their research about Venture Capital and high-tech clusters Avnimelech and Teubal, (2006) defined a high-tech startup as young, high-tech companies whose main activity is R&D up to the initial sales stage (usually between 1 and 5 years old).”

As far as this study is concerned, a Startup is an innovation-driven SME. It is an SME which utilizes innovation and scalability to achieve unlimited growth.

Therefore every Startup is an SME, but not every SME is a startup. Hence, SME marketing theories can be applicable for Startups, as long as innovation, scalability and unlimited growth are pursued by the entrepreneurs.

2.2.4. IT Startup Proposed Definition

The last sections demonstrated that there isn’t an agreed upon definition for an SME or a High-Tech SMEs, or new-technology based firm. However useful guidelines and characteristics were provided. For the purposes of this study the Author will accordingly propose a definition for the IT Startup. The proposed operational definition for the term IT Startup along the entirety of the research is purposed to help the reader understand what is meant by the term as far as this study is concerned.

**IT Startup:**

“A firm of 4-49 employees which is fully funded by owners or shared to a non-controlling percentage with investors and earns less than €2 million in annual sales. The firm is comprised of a majority of technical employees with a main purpose to produce an innovative and scalable high-tech product or service using innovative high technologies, and it operates in an uncertain environment of unpredictable events.”

Below we shall explain the rationale behind the components of the proposed definition.

- 4-49 employees

As per the European Commission’s definition of a micro and small enterprise, the number of employees should fall between 0 and 49. The reason why the researcher started with 4 is because it is the minimum number of an effective work team. According to Fortune Magazine, in the 1970 a research was performed by Harvard’s Richard Hackman and Neil
Vidmar who found that the optimum size for a team is 4.6. The article also referred to a study in 1970 by psychologist Ivan Steiner about what happens when the size of a team increases starting from one member. According to the article, he found that each additional member increased the productivity but also introduced inefficiencies: People became less motivated, and group coordination became more challenging. Steiner showed that team productivity peaked at about five. After that point, adding more members actually began to hurt the team's performance (Yang, 2006). Hence, it was seen reasonable to choose the sample IT Startup’s size between 4-49 because it is the least number where the decision-making process is performed by consensus.

- Is funded by owners or shared to a non-controlling percentage with investors.
This way, the founders are more involved and diligent about their business, and their limited marketing background is considered a challenge and not an act of negligence.
- Earns less than €2 million in annual sales
As determined by the European Commission.
- The firm is comprised with a majority of technical employees
Technical entrepreneurs are the core of IT Startups, because they are the founders and runners of the business. However, they have limited or no marketing background and this study wants to examine this type of challenge and effect on running the business.
- The solution offered is innovative, scalable, is characterized as a high-tech product and innovative high technologies are employed to produce it.
- The surrounding environment is highly uncertain and unpredictable.
Innovation, scalability and high uncertainty were determined by the literature to characterize high-tech SMEs and high-tech marketing (Gliga and Evers, 2010; Grinstein and Goldman, 2006; Grønhaug and Möller, 2005). Furthermore, the startup’s age wasn’t included in the definition because this study is after investigating all types of challenges regardless of the number of years in operation.
2.3 Marketing and SMEs

2.3.1. Marketing and SMEs

Academics have been examining the marketing for SMEs for decades. Various inherent characteristics about SMEs and the way they go about marketing were drawn. This section will discuss some of the main characteristics of SME marketing as reviewed in the literature.

SMEs take their marketing decisions in a usually unplanned and unstructured fashion. Their marketing activities are spontaneous, reactive, and continuously-evolving, and their marketing is generally reactive rather than planned. As they operate in a dynamic environment, SME managers have an inherently innate method of conducting marketing, this is a reason why SMEs usually have an over-dependence on the marketing ability of the manager; which enables them to focus on achieving their competitive advantage through added-value marketing initiatives (Carson, 1993; Gilmore et al., 2001; Grant et al., 2001; Murray et al., 2002; Stokes and Wilson, 2010).

The existing conventional marketing approaches are inappropriate for small firms because they are different. SME entrepreneurs stress the importance of promotion and word-of-mouth, and have identified one of the unique selling points of their business as the nature of their personal contact with customers and their focus on market information, self-identification, interaction and innovation. Innovation is one of the main competitive advantages creating-methodologies for SMEs as will be elaborated shortly. (O’Dwyer et al., 2009; Stokes, 2000)

Generally SME marketing takes into account the unique business environment, characteristics of managers (such as skills and abilities) and resources. SMEs share additional characteristics such as distinctive and independent management styles, having limited resources and scope of operations, lack of ability to compete using economies of scale, a limited customer base, limited marketing activity i.e. difficulties in exploiting marketing, and limited expertise and impact, in addition to an imbalance between
production and marketing. A further difficulty for an SME is that fixed costs usually absorb a higher level of sales revenue, leaving proportionally less for marketing expenditures, hence utilizing few of the available marketing techniques (Carson, 1993; Gilmore et al., 2001; Grant et al., 2001; Hills et al., 1983; Mccartan-quinn and Carson, 2003; O'Dwyer et al., 2009; Stokes and Lomax, 2008; Stokes and Wilson, 2010).

Furthermore, in an SME the boundary between marketing and selling becomes very blurred, as the SME marketing takes place during the selling process (Oakey, 1991) and for many SME managers there is a perception that selling is marketing (Mccartan-quinn and Carson, 2003).

Alberto et al. (2010) conducted a study to examine the SME entrepreneurs’ own concept of marketing. Entrepreneurs were observed to have an incomplete understanding of the marketing concept with respect to academic paradigms, as they tend to consider it as a synonym of either selling or advertising, thus overemphasizing short-term goals (i.e., sales increases) instead of long-term profitability. In other words, entrepreneurs considered marketing as a mere tactic in support of selling or advertising, rather than as a strategic planning tool or a strategic orientation, and the vast majority of them seem to adopt a production or a sales orientation (Alberto et al., 2010).

Flexibility is a central trait to SME marketing as it continues to evolve throughout the life-cycle of the enterprise in response to new product and market demands, while satisfying customer requirements. In facing challenges posed by limited growth conditions, and larger resource-rich competitors, SMEs compete using a combination of invention and adopting flexible business structures, strategies and culture. This flexibility and the ability to respond more quickly than large organizations to changing market requirements is key in helping managers continuously develop and gain experiential knowledge over time while doing business and vital to forming an SME’s competitive advantage (Gilmore et al., 2001; Heathfield, 1997; Mccartan-quinn and Carson, 2003).
Not only do SMEs use flexibility to compensate for their resource constraints, they work on their competitive advantage by developing innovative products or processes. SMEs understand that creative, alternative and instinctive marketing practices may flourish even under financial resource constraints. Generally an SME’s innovation success is determined by newness, extent of adoption, and translation into an exploitable business opportunity (Arias-Aranda et al., 2001; Johannessen et al., 2001; O’Dwyer et al., 2009).

From an SME perspective, innovation commonly refers to new products or processes which address customer needs more competitively and profitably than existing solutions to attract new businesses. Innovative new businesses build new competencies, based on current and future market trends, and customer demands, in addition to being driven by a profit seeking mission. Accordingly innovation is the one of the most significant factors that can be used by SMEs to compensate for any disadvantages experienced because of their size (Forrest, 1990; Low and Macmillan, 1988; O’Dwyer et al., 2009; O’Regan and Ghobadian, 2005).

Hill (2001) conducted an extensive literature review and formulated a framework that integrated the key determinants of SME marketing. The model illustrated how SME marketing is a holistic multilevel process of core marketing competencies, which are determined by strong sales and personal selling approaches. In addition to effective sales and marketing through strong personal contact networking and effective marketing decision-making behavior. Hill’s study synthesized a broad range of studies in the literature until a comprehensive range of influencing elements in a holistic manner was developed (Figure 3).

Very briefly, according to Hill, SME marketing competencies are developed across three levels: 1. foundational (strong sales orientation, personal selling), 2. transitional or linking competencies (overlapping key marketing and sales competencies: relational communication and commitment, and 3. marketing in practice or operational competencies represented in effective personal contact networking. Effective sales orientation and sales
competencies depend on effective networking, which in turn the SME decision-making behavior is operational in character. The study points out that SME competencies are seldom stand-alone entities; however they are clusters of competencies and skills of a highly interactive nature, and SME marketing is shaped by a range of influencing elements.

**Figure 3: A Holistic Model of SME Marketing**

![Figure 3: A Holistic Model of SME Marketing](image)

Source: (Hill, 2001)

It has now been established that SME marketing has specific inherent and distinct characteristics and it is absolutely inappropriate to assume SMEs can adopt the same or similar marketing approaches as large organizations. SMEs simply do not adapt to the marketing carried out in larger organizations, furthermore existing marketing theories offer little of practical use in day-to-day marketing activities and there is a general consensus that SMEs do not behave in the same way as large organizations particularly in relation to responding to the dynamic business environment (Culkin and Smith, 2000; Gilmore et al., 2001; Hill, 2001; Mccartan-quinn and Carson, 2003). Table 2 synthesizes the common SME characteristics as reviewed in the literature in this section.
Table 2: Main SME challenging and winning characteristics.

<table>
<thead>
<tr>
<th>Characteristics to demonstrate challenges</th>
<th>Characteristics to overcome challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Marketing is unplanned, unstructured, reactive, and heavily dependent on the manager.</td>
<td>• Have high flexibility, ability to respond quickly to the market changes and ability to learn and acquire knowledge throughout the company’s life cycle.</td>
</tr>
<tr>
<td>• Management styles are distinctive and independent.</td>
<td>• Develop innovative products and undertake innovative processes which are translated to successful business ventures.</td>
</tr>
<tr>
<td>• Have limited sources, operations scope, customer base, expertise, industry impact, marketing understanding and marketing activities.</td>
<td>• Value alternative and instinctive marketing practices even under financial constraints.</td>
</tr>
<tr>
<td>• Have high costs, can’t compete using economies of scale, very limited funds are available for marketing.</td>
<td></td>
</tr>
<tr>
<td>• Don’t have a clear distinction between marketing and sales that sometimes they are perceived as the same.</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Author)

We conclude from this review that there is some sort of an agreement about the main SMEs and SME marketing characteristics, and that the literature about the subject matter isn’t unsatisfactory. Each of the reviewed studies conducted a research on a different kind of sector and industry and drew findings and recommendations to be applied to SMEs. However those results weren’t sector-specific and characteristics were drawn to mainly any kind of an SME.

2.3.2. Marketing, High-Technology SMEs, and Further Research

As the literature reviewed above talked about SME marketing challenges in general, this section will examine the literature about high-tech SME marketing challenges in specific. There is a particular shortage in the literature about high-tech SMEs and high-tech SME
marketing, if compared to the literature about SMEs and SME Marketing. A handful of academics talked about technical entrepreneurs and their inherent characteristics but literature isn’t sufficient to direct researchers towards a constituted theory which describes high-tech SME marketing, or to help novice high-tech SMEs undertake marketing.

Chell & Allman (2002) and Oakey (2003) talked about SME entrepreneurs who come from a technical background and how they manage their business. Findings were somewhat similar as they concluded that effective entrepreneurship by scientists and engineers is not possible without use of management skills involving personnel management, financial accounting, marketing knowledge and strategic awareness; management skills that clearly assist entrepreneurial success. Furthermore, it was emphasized that business management skills in support of technical innovation greatly help in reaching success, and that is guaranteed when entrepreneurs balance technical and business management skills. However, technical entrepreneurs who value technical elegance and invention more than customer needs tend to neglect marketing.

In its report about European High-Tech SMEs, the European Commission, (2002) talked about various factors in the European High-Tech SME’s environment. For instance, under management competencies the report said that many high-tech entrepreneurs have an excellent education and experience in their specific scientific area, but lack business management capabilities. This constitutes a threat to their survival and an obstacle to their development. According to the report, empirical evidence shows that marketing, human resources and understanding customer needs are the major deficits. Especially in the early stage careful cash management is an often-ignored aspect.

Grønhaug & Möller (2005) wrote a paper with a main question to answer: Is High-Tech Marketing a fact or fiction? The traditional market research was discovered to be of less effectiveness and relevance in high-tech markets (The size and type of firm weren’t specified; the words internet or online were not mentioned at least once).
The study’s main findings is that factors such as novelty, the extreme degree of technological and market uncertainty, the substantial knowledge and learning requirements imposed indicate problems are not addressed as specific challenges in traditional marketing. The authors illustrated their found contrasts between traditional and high-tech marketing in a table, see Table 3.

Table 3: High-Tech and Traditional Marketing.

<table>
<thead>
<tr>
<th>Source</th>
<th>(Grønhaug and Möller, 2005)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(1) Technology</th>
<th>High-Tech Marketing</th>
<th>Traditional Marketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Importance</td>
<td>Key focus</td>
<td>Secondary</td>
</tr>
<tr>
<td>- Development</td>
<td>Rapid</td>
<td>Slow(er)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Industry</th>
<th>Emergent/rapidly changing</th>
<th>Established</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(3) Markets</th>
<th>Non-existing/emergent</th>
<th>Established</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(4) Buyers</th>
<th>Lack of modest knowledge/difficult to evaluate product/services</th>
<th>Possess knowledge/can evaluate products/services</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(5) Competitors</th>
<th>Party unknown/difficult to assess</th>
<th>Known</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(6) Market knowledge</th>
<th>Important/difficult</th>
<th>Important/more easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Learning</td>
<td>Partly irrelevant</td>
<td>Highly relevant</td>
</tr>
<tr>
<td>- Market research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(7) Planning</th>
<th>Difficult/short time</th>
<th>Possible/more predictable</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(8) Marketing organization</th>
<th>Cross-functional/internal relationships and networks</th>
<th>Department/function</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(9) Marketing decisions</th>
<th>&quot;Producer driven&quot;/Producer-customer cooperation</th>
<th>&quot;Market driven&quot;/&quot;Traditional&quot; - idea, prototype testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Product developments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pricing</td>
<td>Difficult/Uncertainty</td>
<td>Price theory/calculation</td>
</tr>
<tr>
<td>- Distribution</td>
<td>Close contact between producer and customer/interactions</td>
<td>Great variations/Intermediaries</td>
</tr>
<tr>
<td>- Marketing communication</td>
<td>Market education</td>
<td>Emphasis on own advantages</td>
</tr>
</tbody>
</table>
were discovered to be: First, the deep involvement in and orientation towards R&D activities. Second, innovativeness and entrepreneurship are key traits in the organizational conditions. Finally corporate-culture and work relations are usually informal, open and cooperative.

Perhaps one of the most relevant researches about high-tech marketing is the one by Gliga & Evers (2010). The authors believe that technological superiority is not a guarantee for a high-tech SMEs’ success. Instead, the odds of success are maximized by a combination of technology superiority and marketing capability.

After they have reviewed key studies in the marketing literature, their study proposed a research framework to capture the strategic marketing issues in high-tech SMEs, and identified some key strategic marketing challenges facing high-tech SMEs represented in differentiating between the type of innovation sought, whether incremental or disruptive, acquiring marketing intelligence, customer segmentation, targeting and positioning, and finally strategizing the marketing program.

Their study’s conclusion is that a high-tech firm must transform its internal capabilities and transform from being an initially technology-driven firm to a market-driven firm after having tested its applications and found the most successful market opportunities to satisfy the customers’ unique requirements. Table 4 illustrates the main challenges faced by technological SMEs according to this study.
The study concluded with avenues for **future research**. Firstly, that more research is required in examining the SMEs management and response to the industry dynamics of shorter and more unpredictable product life cycles. Secondly, use of qualitative methods to provide more narrative insights into this issue was suggested. According to the authors and their understanding of Yin (2009)’s research on qualitative research, qualitative insights would not only expose the critical success factors for successful marketing in high-tech SMEs but also those reasons for failure. They suggested case studies as they would yield relevant empirical evidence by investigating this area of research in terms of the most effective marketing tools and techniques to assist high-tech SMEs in accomplishing their goals. Finally, the study encouraged researchers to explore relationships between performance of high-tech SMEs and their marketing resources and capabilities.
It is worth mentioning that “Marketing of High Technology Products and Innovations” by Mohr et al. (2009) was perhaps the only textbook on the market that provides readers with marketing information about marketing high-tech products. This year Rao & Klein (2015) launched their book “Strategies for High-Tech Firms: Marketing, Economic, and Legal Issues” which is the first one to present marketing strategy of high-tech products and services in a legal, economic, and global context.

In conclusion, this section collected the literature’s key characteristics about SMEs, SME Marketing, high-tech SMEs and high-tech SME Marketing.

The main SME challenges were illustrated through Table 2. Table 4 illustrates the main high-tech SME characteristics and challenges synthesized from the reviewed literature, more specifically from the three most related studies about SME and High-Tech Marketing which are Gliga and Evers, (2010); Grinstein and Goldman, (2006); and Grønhaug and Möller, (2005).

The following section discusses Online Marketing for SMEs and then a universal research framework will be drawn against all the aforementioned variables.

### 2.3.3 Online Marketing, SMEs, and Further Research

The past sections discussed marketing for SMEs and its main characteristics. The main conclusion reached is that SME marketing practices are inherently different from those of larger organizations and that existent marketing theories offer little input for SMEs regarding day-to-day marketing practices.

Since the new millennium the internet started to be gradually incorporated in marketing and academics examined the phenomenon since inception.
<table>
<thead>
<tr>
<th>Main High-Tech SME Characteristics</th>
<th>Main High-Tech SME Challenges</th>
<th>Main High-Tech SME Marketing Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Orientation towards R&amp;D Activities.</td>
<td>• High-risk projects.</td>
<td>• Technological industries are rapidly changing.</td>
</tr>
<tr>
<td>• Innovativeness and Entrepreneurship.</td>
<td>• Difficulty attracting investment.</td>
<td>• High-tech markets are emergent or non-existent and characterized with limited predictability and high uncertainty.</td>
</tr>
<tr>
<td>• Relationships are informal and cooperative because single persons can operate adequately in high-tech fast-changing markets.</td>
<td>• Young entrepreneurship with strong technical background and limited or no formal management/marketing training.</td>
<td>• Market planning is difficult and short-term.</td>
</tr>
<tr>
<td></td>
<td>• Acquiring market knowledge.</td>
<td>• Buyers don’t understand the novel solution, and investments have to be put in market education and communication.</td>
</tr>
<tr>
<td></td>
<td>• Need to employ different marketing strategies depending on type of innovation.</td>
<td>• Prototyping products is done with caution and attracting early adopters is a must.</td>
</tr>
<tr>
<td></td>
<td>• Need for continuous learning and adapting to change as technologies evolve.</td>
<td>• Market research is unjustified to some extent due to inability to evaluate novel solutions, however co-developing solutions alongside customers can create value and lessen uncertainty.</td>
</tr>
<tr>
<td></td>
<td>• Customer segmentation because market needs are unknown before product launch.</td>
<td></td>
</tr>
</tbody>
</table>
Chapman et al. (2000) explored how internet contributes to building SMEs competitiveness and designed a methodology through which they can overcome the inherent constraints to using technology. (Scupola, 2002) presented findings from an explorative case study concerning barriers, benefits and use of SMEs adoption of business-to-business e-commerce. Levy & Powell (2002) investigated how SMEs, then, perceived internet marketing through emailing and effective websites and found that businesses are willing to invest in e-business given its potential strategic benefits. Egan et al. (2003) discussed how e-commerce tools can be integrated in the SME’s business processes and found that internet can provide wide-reaching economic benefits through an alternative channel for companies, especially those operating in peripheral regions such as those on the edge of Europe. Beckinsale et al. (2006) examined how SME owners adopt internet as response to customer pressures more intensively than governments’ encouragement towards SMEs to become electronically enabled.

Gilmore et al. (2007) conducted a study which indicated that e-marketing is still very much in its infancy for some SMEs in Northern Ireland. Although the use of the internet by SMEs has generally grown since 2000 it appears that its overall impact is still low. SMEs main perceived value of e-marketing is conducting cheaper advertising using e-mail as a marketing tool and decreasing the costs of printing materials such as catalogues and brochures.

El-Gohary (2010) synthesized most of the past literature on the subject and found clear research gaps in the field of E-Marketing and its adoption by SMEs. To fill such gaps and extend previous studies there is a need for conducting more research to investigate the relationship between implementing E-Marketing and small business enterprises’ performance, he suggested. According to Eid & El-Gohary (2011), Online Marketing provides SMEs with the opportunity of developing successful economic businesses as it puts SME entrepreneurs in touch with previously unavailable global resources and opportunities so that they can communicate and conduct business with new and existing customers in an integrated and easy way.
When talking about Online Marketing, Social Media must be discussed given their popularity and vast adoption by all types of businesses worldwide.

Social Media Marketing (SMM), can be viewed as a new field involved with the marketing of goods, services, information and ideas via the online Social Media (SM), and it is a subset of internet marketing.

SMM uses SM applications to fulfill traditional marketing and exploits mobile and web-based technologies. SM accordingly create interactive media where users can share, co-create, modify and discuss their opinions through what is called User-Generated Content (Dahnil et al., 2014; El-Gohary, 2010; Kaplan and Haenlein, 2010).

In conclusion, as far as the study on hand is concerned Online Marketing (or e-marketing) means utilizing the internet and its readily available technologies and channels to achieve the desired marketing goals of an SME alongside traditional marketing or lack thereof. The main online marketing technologies used in Online Marketing (OM) must include but are not limited to: Owned Media such as website or blog, Social Media and Paid Media (See Table 1).

The next section will draw a universal research framework to illustrate the relationship between Content Marketing and High-Technology SME Marketing given its main determinants and challenges.

2.3.4. Content Marketing and SMEs : The Gap

All the above mentioned research discussed CM from a general view, i.e. how businesses use it regardless of the business type. It has been established that it is important for a business to blend types of developed content and media where it is deployed. However types of the “businesses” talked about so far were not specified. The research talked about
CM practices for businesses and brands in a generic manner without saying which techniques fit which types of businesses.

According to the United States Census Bureau and the US Small Business Administration, small businesses have generated over 65% of the net new jobs since 1995, and approximately 75% of all US businesses are nonemployer businesses. The Bureau identifies a nonemployer business as “one that has no paid employees, has annual business receipts of $1,000 or more, and is subject to federal income taxes. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner’s principal source of income.” (Nazar, 2013; SmallBusinessAdministration, 2012; USCensusBureau, 2007)

In Europe small entrepreneurial companies were described by Andrus Ansip; VP for the Digital Single Market on the European Commission, as central to the Europe’s digital future. “They are the ones who will create the ideas and jobs that Europe needs for its economic growth.” He said.

Successful technology startups are bursting out of the tech hubs of London, Stockholm and innovative young companies from the broader reaches of Europe are contributing to the world economy (Mizroch, 2015). Startup Europe Partnership, an initiative establish by European commission in 2014 dedicated to developing European startups, conducted a preliminary study to map the European Startup ecosystem. One of the main findings that tech startups (Software, E-commerce, Mobile) were the most popular and received most funding from investors (Onetti, 2014; PEDALConsulting and Ud’Anet, 2014). There are a lot more data and researches about small businesses in the world, sorting promising sectors, contribution to the global economy and more. More studies and results will be provided the next section.

In an interview with Joe Pulizzi, founder of the Content Marketing Institute, when he was asked about the future of CM and its adoption by businesses, he said “Change is hard, especially in big companies. Agile companies and even startups have an easier time with Content Marketing than longstanding companies because of this” (EContent, 2014).
A simple search for “Content Marketing Tactics for Startups” in Google will result millions of how-to guides, White Papers, PowerPoint and PDF manuals. For instance North Brand Media, a video production company, wrote a white paper for small businesses and how they can tailor the most useful tactics to their benefit (NorthBranchMedia, 2014). The CM tactics cited in the paper where adapted from the CMI. Growth Guides and NextView Ventures, a consulting firm for Startups and a Venture Capitalist Firm funding mobile startups respectively, wrote a handy manual dedicated to startups about the theory and application of CM. Again, many of the tactics were cited from CMI, HubSpot and MarketingProfs. Forbes Entrepreneur and other prominent papers also wrote interesting pieces.

However, so far all what we talked about the CM and helping startups utilize it is mostly demonstrated in market research reports, online documents and field researches. All of which in the eyes of academia are Gray Literature (Alberani et al., 1990) as none of them is peer-reviewed in any academic journals.

In conclusion, the literature failed to acknowledge the CM concept, analyze it, and suggest applications for it. Most of the literature talks about Social Media as content platforms and how their utilization can help businesses and SMEs. However nothing was discussed about which type of content-related strategies for which types of SMEs, especially high-tech startups given their recent popularity and unique characteristics.

2.4. Research Framework
The developed research framework (See Figure 5) illustrates the main players in an IT Startup’s milieu as identified by this study. The model is divided into two vertical halves: The IT-Specific Drivers side, and the Marketing Drivers side.
Part 1: The IT-Related Drivers:
Based on the reviewed literature, it was established that an IT Startup has specific characteristics (positive and negative) other types of startup don’t posses. An IT Startup also has specific kinds of challenges and marketing challenges. Even though they are “challenges”, they can easily become drivers by harnessing the firm’s points of strength (core capabilities and competencies) and employing the correct types and tools of marketing.

Part 2: The Marketing Drivers:
Tools of Content Marketing as a subset of Online (Digital) Marketing and Strategic high-tech SME marketing (as demonstrated in Gliga and Evers, 2010) are used across different types of media. Hence when a startup harnesses its core competencies though building on its challenges and utilizing the correct tools of CM (from an IT Startup standpoint) results in the IT Startup CM.
The purpose of this study is to guide IT Startups on integrating Content Marketing into an effective marketing ecosystem. CM is only one player in the entire set of marketing activities. Using a qualitative multiple case study, conclusions will be reached about the main challenges faced by IT Startups (building on the literature reviewed). A conceptual framework will be finally constructed to provide solutions for those challenges and to relate the IT-Related Drivers to the Marketing Drivers to create an effective marketing ecosystem which includes CM that is utilized by an IT Startup, i.e. IT Startup CM.
3. Methodology

This chapter discusses the selected research methodology, research design and the relationship to answering the research question. First the rationale behind choosing qualitative research is explained and justified. Next section highlights the research design and tools used in the data collection: Holistic Multiple Case Study through in-depth semi-structured interviews. Section three examines the planning and preparation phases of the data collection, i.e. the case study protocol. The following sections discuss the actual data collection process, methodology limitations and data validity and reliability.

3.1. Qualitative Research Strategy and the Main Research Question

This study’s main question is examining how IT Startups can integrate CM into their Online Marketing strategies. To answer this question it was necessary to see how IT Startups go about online marketing and developing content for that matter.

A qualitative case study methodology as defined is relevant to answer this research question because there is an “in-depth” description of a phenomenon sought. Case studies gather evidence which lead to answering this question as it is a “how" or "why” type of question in an attempt to derive general conclusions from a limited number of cases and conditions and their inter-relationships (Gummesson, 1999; Yin, 2009). According to Guba & Lincoln (1994) case study is a useful tool for a naturalistic inquiry (understanding and portraying social action or meaning as far social actors as concerned (Lincoln, Yvonna S. & Guba, 1985)) as it helps in understanding the phenomenon under investigation. They advocated case studies as they build on the reader’s implicit knowledge, invites them to search for internal consistency and to study the thick description a case study provides. Furthermore, case studies can be used to generate theory as well as having the ability to obtain a holistic view of the process under research (Valdelin, 1974 in Gummesson, 1999).
3.2. Research Design

Given the research question and data available from the literature pertaining high-tech SME characteristics and marketing challenges, the next step to design the research is to define the units of analysis.

This study pursues an Exploratory Multiple-Case design as it can be adopted with real-life events that show numerous sources of evidence through replication rather than sampling logic. Hence generalization of results from multiple case studies stems on theory, and by replicating the case through pattern-matching (a technique that links several pieces of information from the same case to some theoretical proposition (Campbell, 1975)), multiple-case design enhances and supports the previous results. This helps raise the level of confidence in the robustness of the method (Baxter et al., 2008; Yin, 2009).

As they are multiple cases, replication logic is pursued. Stemming from the developed research framework, this study expects to find particular phenomena and they will either be repeated and work as predicted (literal replication) or contrasted (theoretical replication) amongst the different cases. Hence the final report shows the extent of whether the propositions from the research framework were demonstrated (or contrasted) (Yin, 2009).

Another worth-mentioning factor is that those multiple cases are exploratory in nature because this type of case study explores those situations in which intervention being evaluated has not clear, single-set of outcomes (Yin, 2009). This means that the extent of using Content Marketing inside IT Startups is unclear. As the literature suggested even if CM techniques are utilized they don’t fall under a strategized CM program. This is why this case study is exploratory in nature because the extent of utilizing CM within the Online Marketing strategy, or lack thereof, is explored and examined.

Regarding the criteria for data interpretation, in addition to pattern matching, a cross-case analysis synthesis will is applied to analyze the collected data. In this methodology every case is treated as a separate study in which convergent evidence is sought regarding the facts and conclusions for the case. The synthesis is then aggregated in matrix of categories
of evidence and displaying data from the individual cases (Miles and Huberman, 1994; Yin, 2009).

3.3. Preparing for Data Collection: Case Study Protocol

Field Procedures and Cases Selection

The researcher selected nine Startups, five from Portugal and four from Egypt⁴. One startup of each group is in the low-technology category as an effort to ensure construct validity.

Besides the fact that Egypt is the home country of the researcher, it has been described to be an emerging marketing by a myriad of economic analysts, magazines and global organizations such as IMF, S&P, EY, the BRICS⁵ Association, Forbes and more.

After the 25 January 2011 youth revolution, aspects of the economy and politics have been undergoing reorganization. Selecting Egyptian IT Startups which share the predefined criteria and conducting the same study on them as the Portuguese ones yields interesting findings. This doesn’t only help ensuring validity, but also in viewing them on par with the Portuguese startups. Matching the common patterns in the data analysis adds an enriching perspective to the study which will be elaborated in the data presentation chapter.

The main characteristics of the IT Startups selected are congruent with the proposed definition of an IT Startup as demonstrated in the last chapter. Therefore every startup selected:

- Has 4-49 employees
- Is funded by owners or shared to a non-controlling percentage with investors..
- Earns less than €2 million in annual sales
- The firm is comprised with a majority of technical employees

⁴ There were originally five Egyptian startups, but one was on-hold as it exited the market temporarily. However the founder was interviewed as an “independent entrepreneur” and history of his firm was discussed.

⁵ The Five major emerging national economies: Brazil, Russia, India, China and South Africa (southafrica.info, 2011)
- The solution offered is innovative, scalable, is characterized as a high-tech product and innovative high technologies are employed to produce it.
- The surrounding environment is highly uncertain and unpredictable.

Furthermore, the startup’s age wasn’t included in the startup’ selection criteria because this study is after investigating all types of challenges regardless of the number of years in operation. In addition, CM tools should be employed by the IT Startup in accordance with its learning and marketing experiences which are not necessarily defined by its number of years in operation.

The Portuguese startups were selected from UPTEC, Porto; a Porto University-backed incubator. Egyptian startups were selected from personal networking in Egypt in addition to internet search through various lists of Egyptian startups.

Opinions of three experts are used: two experts from the field (technical background and business experience); one from Egypt and the other from Portugal. The third expert is a Portuguese marketing academic who works as a part-time consultant for various SMEs in a variety of fields. Experts’ opinions are important for the data triangulation as will be explained shortly.

Finally, direct observation was employed by observing the startup’s website and Facebook page. Facebook was the main Social Media platform used and number of fans was recorded.

**Case Study Questions**

The Case Study is purposed to answer main questions which fit the research design. Those questions were then extrapolated to a greater detail into an Interview Guide which serves as the verbal line of inquiry (Yin, 2009).

It is worth mentioning that the guide wasn’t followed verbatim as the interviews were semi-structured and interviewees were invited to talk comfortably and engage in an open
conversation. Hence, the guide didn’t stipulate a rigid adherence to the predesigned protocol (Yin, 2009).

The main questions sought after for each individual case are (mental line of inquiry (Yin, 2009)):

- Main online marketing activities and types of media used.
- Extent to producing content, distribution platform and persons involved.
- Familiarity with the CM as a concept.
- Extent to using performance analytics tools.
- Most time- or resource-consuming activity.
- Main challenges faced in order (limited funds or marketing knowledge) and means of addressing them (if applicable).
- Self-definition of an IT Startup and useful lessons for other IT Startups.

**Pilot Study**

Given the defined characteristics of the startups and the limited number of cases a pilot study was conducted just to test the understandability of the questions by the interviewee and to cover any substantive and methodological issues (Yin, 2009).

The Egyptian low-tech Startup was the pilot study and it was the first one interviewed. It was discovered that the questions’ order was better to be followed a bit differently. Furthermore, it was learned that it is important to listen to what the interviewee has to say even if it was out of the question’s scope because it eventually adds value and enriches the input from the case. Hence flexibility and letting the interviewee talk comfortably.

**3.4. Data Collection**

**Interviews**

The main data collection tool employed is in-depth semi-structured interviews. Interviewees engaged in a conversational-style interview; however a set of questions (derived from the protocol as mentioned above) was followed. Interviewees were asked about the facts of the subject matter as described in the guide as well as their opinions
about events. In many situations, the researcher asked the interviewee to propose their own insights into certain occurrences and many of the propositions helped the researcher formulate some of this study’s recommendations for future inquiry (Yin, 2009).

Thirteen interviews were conducted in total: three IT Egyptian startups, one low-tech startup, an independent entrepreneur who recently put his IT startup on hold and an Egyptian field expert. On the Portuguese side: four IT Portuguese startups, one low-tech startup and two Portuguese experts; one business academic who is also a consultant and another business consultant from a technical background.

Each interview lasted for about one hour on average (except for one that lasted for only 30 minutes as the interviewee had a tight schedule but the missing information was shared via email). Interviews were conducted over a period of fifteen days.

Face-to-face interviews took place in English at the startup’s premises (which was all in UPTEC, expect for one startup that moved out of UPTEC). Interviews were recorded using the researcher’s laptop and the interviewees’ permission was granted for recording. The interview guide was open in MS Word during the interview to take any important notes and to answer the close-ended questions, and some interviewees have even read the interview guide beforehand. Each startup’s Facebook page and website were also open during the interview to encourage interviewees to demonstrate their activities and help the researcher gain more understanding by direct observation.

Egyptian interviewees were interviewed on Skype or Viber in Arabic and the interview followed the same procedures.

The interviews (one-on-one, in-depth, semi-structured) were conducted with the startups’ founders or co-founders, and in some situations the marketing managers participated. As the interviews were in depth, detailed discussion was allowed and the interviews proved efficient to elicit detailed responses from the busy managers. They shared their perceptions and experiences about the startup’s main challenges and the ways online marketing and developing content are implemented (or not) for the business activities. It is worth
mentioning that the interviews allowed flexibility to go into detail about various interesting and unpredicted aspects of the research findings (Carson et al., 2001; Swatman et al., 2006).

Main points from the interviews were transcribed to facilitate the in-depth analysis and sent to the interviewees for approval. Analysis of the data focused on identifying the main questions explained before, as well as any other related or unrelated valuable pieces of input. Pattern matching and cross-cases synthesis analysis were then employed to extract the findings from the data in an understandable, organized and uniform manner.

**Triangulation**

As explained before, the different types of selected startups and using experts’ advice was purposed to reach validity and triangulation.

The main logic of triangulation is based on the premise that: “no single method ever adequately solves the problem” (Denzin, 1989) and using only one method is more vulnerable to error linked to that particular method (Patton, 1990, 2014); for that the use of different methods in studying the same phenomenon should lead to a greater validity and reliability than a single methodological approach. For instance, interviewing experts in both countries has the advantage of removing the bias that is associated with the pre-data collection propositions and the findings from the interviews themselves.

Experts have specific insights and knowledge given their professional positions and expertise (Flick, 2014). They are persons who are particularly competent as authorities on a certain matter of facts. They have interpretive knowledge referring to their professional sphere of activity, hence expert knowledge has the character of practical knowledge in big parts and experts have the opportunities to assert their orientations (Bogner et al., 2009 in Flick, 2014; Meuser and Nagel, 2009 in Flick, 2014).

Bogner et al. (2009) suggest a threefold typology for interviewing experts. This study is interested in the first and second ones. 1. Exploration, i.e. collect knowledge information about a specific process. 2. Collecting context information which complements insights
coming from applying other methods. i.e. How can Content Marketing contribute to a startup’s Online Marketing strategy?

The Facebook page was observed for each startup as well as the website. Facebook is the most used platform among the interviewed startups and some even gave it more attention than the website. Posts from the last two months at least as well as frequency of sharing posts were observed closely before the interview and the number of fans was also recorded. According to El-Gohary (2010), triangulation is highly recommended for future researches on the field of Online Marketing to depend on triangulation approach to increase the validity and credibility of the research conclusions, the confident levels in the related findings and the ability of generalization, which are the exact purposes of collecting data as explained before.

To summarize this study ensured data triangulation, validity and reliability by using multiple sources of evidence, i.e. different kinds of startups, different countries and field experts. In addition to theory triangulation based on relying on different perspectives upon the SMEs, High-Tech SMEs and marketing issues in both and direct observation of the startup’s owned media (Yin, 2009).

**Case Study Workflow**

It is worth mentioning that the researcher archived the recorded interviews and created a case study data base through aggregating the written notes from each case study; during and after the interview. After that main themes were extracted and tabulated (Yin, 2009).

Accordingly, an external investigator will be able to revisit the case study protocol and trace back the steps in any desired direction.

**3.5. Methodology-related Limitations**

This study followed the data triangulation and validity measure through selecting different kinds of IT Startups in different countries and consulting field experts. However an evident limitation is the geographical distance between the researcher and the Egyptian startups.
The internet connection in Egypt is somewhat of a low quality and calls were sometimes distorted leading to time wasted for reconnection. Hence it would have been better for the interviews to be conducted in-person for the researcher to be able to better assess the situation in terms of observing the premises and the work team in their working environment, just as the case with the Portuguese startups.

Another limitation is risking the subjectivity of the experts. Even though they were selected carefully and their input isn’t the main source of data, there is always the risk of the human-factor subjectivity. How can one need to have a controlled access to an expert’s experiences during a limited time without taking the whole person or life history into account (Flick, 2014)?

However, as said before, this limitation is controlled by the propositions drawn a priori from the literature and the researcher’s familiarity about the subject matter, hence predicting most of the findings.

3.6. Data Validation and Reliability

To ensure the thoroughness of data, four main tests were used to judge the quality of a research design as per the recommendations of (Cook and Campbell, 1979; Eisenhardt and Graebner, 2007; Eisenhardt, 1989; Gibbert et al., 2008; Miles and Huberman, 1994; Yin, 2009). This study is constructed around the appropriate data gathering tools to ensure data validity and reliability:

1. **Construct Validity** is ensured because there are multiple sources for evidence.
2. **Internal Validity** is ensured because data analysis tools have been defined.
3. **External Validity** is ensured because the multiple-case replication logic mentioned before is employed.
4. **Reliability** is ensured because this study’s data collection procedures can be repeated to other IT Startups of the same criteria and the results are likely to be repeated.

Further explanation will be provided in the next chapter.
4. Findings and Data Presentation

4.1. Sample: Startups and Experts

Thirteen interviews were held in total. The sample is comprised of three main clusters:

1. High-Tech Startups in Portugal and Egypt: eight startups, one of which has exited the market after decline.
2. Low-Tech Startups in Portugal and Egypt: two startups.
3. Field Experts in Portugal and Egypt: three field experts.

A Startup Lifecycle Model was adapted from Compass, 2013; Dodge and Robbins, 1992; Hanks et al., 1993; and Lester et al., 2003. The Startups interviewed were in different stages of the model. Description of each stage is explained in detail in the Appendices list.

Tables 5, 6 and 7 summarize the startups’ and experts’ main characteristics. Figure 6 illustrates the lifecycle stage of each of the interviewed startups.

There is an important note to add regarding Table 6. The reason why Facebook was the only Social Media tool recorded for the startups under investigation is because, as will explained shortly, it is the most commonly used Social Media tool given its ease of management and attraction of the mainstream audiences. It was also interesting to see how B2C and B2B startups run their Facebook page.

4.2. Methodology of Analysis

After having transcribed the interviews, pattern matching and categories clustering via tabulation techniques were used to reach common themes (Miles and Huberman, 1994; Yin, 2009). At first a table was prepared after each interview to gather the main characteristics of the company, then the main points as per the interview guide were outlined. After having repeated this step across all the interviews, a table was prepared to gather the cluster the main common themes which emerged from the interviews. After this another table was prepared to outline the main IT Startup characteristics and IT Startup Marketing challenges according to the models collected from the related studies in one row. In the second row, the common themes which emerged from the answers were added.
Following pattern matching and explanation building techniques (Yin, 2009) the main observed themes were then extracted.

Table 5: Characteristics of the High-Tech Startups Interviewed.

<table>
<thead>
<tr>
<th>#</th>
<th>Company’s Name</th>
<th>Person(s) Interviewed</th>
<th>Location</th>
<th>Industry</th>
<th>Type</th>
<th>Source of Funds</th>
<th># of Employees</th>
<th># of Facebook Fans (June 2015)</th>
<th>Last Annual Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AddVolt</td>
<td>Bruno Azevedo – Co-founder</td>
<td>Portugal</td>
<td>Integrated systems for Automotive logistics</td>
<td>B2B</td>
<td>VC</td>
<td>5</td>
<td>252</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Miguel Sousa – Co-founder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Code 125</td>
<td>Mostafa Mabrouk</td>
<td>Egypt</td>
<td>Web design</td>
<td>B2C</td>
<td>Self</td>
<td></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(temporarily on hold – plans to reopen next year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>FYI-GEMA Group</td>
<td>Pedro Torres– CEO of FYI</td>
<td>Portugal</td>
<td>Web design</td>
<td>B2B</td>
<td>Self</td>
<td>32</td>
<td>2672</td>
<td>&gt; €1.5 million</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Digital Advertising and marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Iqraaly</td>
<td>Abdelrahman Wahba – CEO</td>
<td>Egypt</td>
<td>Mobile App</td>
<td>B2C</td>
<td>VC</td>
<td>25</td>
<td>433000</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Audible media and news</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>JScrambler</td>
<td>Pedro Fortuna – CTO and Co-founder / Carlos Conçalves – Marketing &amp; Sales Manager</td>
<td>Portugal</td>
<td>Software for Online Security</td>
<td>B2B</td>
<td>Self and VC</td>
<td>18</td>
<td>733</td>
<td>&lt; €500 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6: Characteristics of the Low-Tech Startups Interviewed.

<table>
<thead>
<tr>
<th>#</th>
<th>Company’s Name</th>
<th>Person(s) Interviewed</th>
<th>Location</th>
<th>Industry</th>
<th>Type</th>
<th>Source of Funds</th>
<th># of Employees</th>
<th># of Facebook Fans (June 2015)</th>
<th>Last Annual Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Mazid Labs</td>
<td>Osama Mazid – CEO</td>
<td>Egypt</td>
<td>Testing Labs (Microsystems) &amp; Software</td>
<td>B2B</td>
<td>Self</td>
<td>6 engineers</td>
<td>3216</td>
<td>&lt; €28000</td>
</tr>
<tr>
<td>7</td>
<td>QEye</td>
<td>Mahmoud Abdel Aziz – CEO</td>
<td>Egypt</td>
<td>Integrated systems for Manufacturing quality inspection</td>
<td>B2B</td>
<td>Self</td>
<td>5 engineers</td>
<td>414</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Sensegate</td>
<td>Pedro Sá – Co-founder</td>
<td>Portugal</td>
<td>Integrated systems for residential security</td>
<td>B2B</td>
<td>Self and VC</td>
<td>5 engineers</td>
<td>260</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Explicas-Me</td>
<td>Tiago Loreiro – CEO, Filipa Sobral – Marketing &amp; Sales Manager</td>
<td>Portugal</td>
<td>Private Education</td>
<td>B2C</td>
<td>Self</td>
<td>4</td>
<td>8282</td>
<td>&lt; €5000</td>
</tr>
<tr>
<td>10</td>
<td>Tatweer</td>
<td>Mohamed Fahmy, DBA – CEO, Maha Eshak – Marketing &amp; Sales Manager</td>
<td>Egypt</td>
<td>E-learning and Career e-Development</td>
<td>B2B</td>
<td>Self</td>
<td>13</td>
<td>2326</td>
<td>&gt; €220 000</td>
</tr>
</tbody>
</table>
Table 7: Field Experts Interviewed.

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Industry and Expertise</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fady Ramzy</td>
<td>Business Development</td>
<td>Egypt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Entrepreneurship and Startups</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Luis Cardia</td>
<td>Business Academic</td>
<td>Portugal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SME Consulting</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ricardo Martins</td>
<td>Business Development Manager</td>
<td>Portugal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IT SMEs Consulting</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6: Lifecycle Stages of the Startups Interviewed.

To ensure thoroughness, the researcher followed the recommendations of (Cook and Campbell, 1979 in Eisenhardt and Graebner, 2007; Gibbert et al., 2008; Miles and Huberman, 1994; Yin, 2009). This study is constructed around the appropriate data gathering tools to ensure data validity and reliability. Construct Validity is ensured because there are multiple sources for evidence. i.e. High-Tech and Low-Tech Startups from both Portugal and Egypt. Opinions of field experts, also from both countries, were consulted to ensure data triangulation. Direct observation of each startup’s owned media (mainly website and Facebook page) was carried out. Finally interviews were digitally recorded, transcribed and sent to interviewees for review. Internal Validity is ensured.
because data analysis tools have been defined. i.e using pattern matching, cross-case analysis synthesis and tabulating the main categories and themes. **External Validity** is ensured because the multiple-case replication logic mentioned is employed. i.e. the study’s findings can be generalized to the IT SME Marketing domain. **Reliability** is ensured because this study’s data collection procedures can be repeated to other IT Startups of the same criteria and the results are likely to be repeated. i.e. the case study protocol is carefully organized and can be used by external investigators to redo a similar study.

**4.3. Emergent Themes: Case Studies**

This section discusses the emerged themes from the interviews.

**4.3.1. Networking, and market validation**

Building partnerships was mentioned by almost all of the interviewed startups. In the early stages of operations the technology was tested with the first potential customers. AddVolt, QEye, Sensegate for instance are manufacturing IT Startups. They all deal with their first-paying potential clients and spend considerable times with them to test the technology.

AddVolt co-founders said that they came up with their only pricing model after having worked with the transport companies. They discovered that periodical maintenance and payments are better for a prolonged relationship with the client and it will create sort of trust because the client knows the manufacturer is available anytime.

QEye CEO said that constantly working with the old-fashioned textile manufacturers has given them a sense of understanding of this type of risk-averse client. He also said that for years he has been establishing partnerships and being part of important engineering networks in Egypt and this paid off. He organizes engineering contests, and was able to attract important domestic and international sponsors and this paid off, he said, in terms of collecting contacts, potential employees for QEye, and most importantly investors.

Sensegate Co-founder said that for their specific client (Residential buildings condo managers), it is unwise to start mass marketing when this specific category of clients is traditional, hence it is better to talk to them personally.
So, for an uncertain technology, which people don’t understand, it is always better to test the market, even with the product is not ready yet. FYI-GEMA iterates the importance of market validation because it gives entrepreneurs a sense of the market and allows them to adapt it accordingly.

Iqraaly CEO said entrepreneurs must rush to the market and find their first-paying customers, not only for triggering the initial cash flow, but also to work on the product and modify accordingly. Expert Ricardo Martins agrees and says an entrepreneur should “plan before acting” and that validating with target customers is essential.

**Theme 1:** It is important to form personal contact networks to help validate the product, attract the first-paying customers and trigger initial cash flows.

4.3.2. Most common Social Media (SM) tool

It was noticed that Facebook was the common SM tool and sometime the only Online Marketing media tool used, even more than the website.

Explicas-Me said that people are “lazy” and they prefer Facebook to search for whatever they need, then they depart from Facebook to the other media. They concentrate most of their efforts on their Facebook page and they are able to curate a large volume of content on it.

Mazid Labs confirms, they depend heavily on Facebook since it is more accessible and easy. They don’t have a web designer on the team and managing the website has been ignored for a while.

Expert Fady Ramzy says that unfortunately most Startups consider having a Facebook page is the main and sometimes only required online marketing activity. He tries to teach his trainees that Facebook is one out of several Social Media and that there are other media for a company such as owned media (website and blog), he also encourages them to use LinkedIn because it is the main professional B2B tool.
Expert Ricardo Martins who earned his MBA from Porto Business School, also highly encourages LinkedIn for IT Startups and thinks that Facebook isn’t professional. He explains that startups are overly dependent on Social Media and that Facebook isn’t sufficient for sure. It works only for well-known brands and specific concepts. He believes it is not the best method to convey a message because it is too informal, and believes more in LinkedIn and Twitter. However, companies which use Facebook however need to be able to manage it and coordinate the relationships they have with their customers.

**Theme 2:** Facebook is the most commonly used SM tool given its ease of operation, simple management and being with the mainstream audiences, but it is not enough.

**4.3.3. Technology Orientation**

Almost all startups said that technology development was their main resource consuming activity. For companies who were beyond their market validation stage, this can imply several risks, confirms Expert Luís Cardía. To them, their technology makes all the sense; they are absorbed by their idea and think that the product will do just fine in the market because it is an innovative solution. It is difficult for them to translate this into the business benefits customers actually purchase and pursue. Tech entrepreneurs are invested in the technology and they address the market from a tech-oriented mind, they think everyone is on the same level as they are and that the technology should make sense to the market just as it makes all the sense to them, he continues.

Mazid Labs CEO said that they were “shocked” from the market response after they started their testing labs. He said they nearly didn’t conduct any initial market plans and he knows of other engineering entrepreneurs who are “afraid” to do so before inception because they don’t want to find any competitors for them. They think, or they want to think, that their product is one of a kind and no other company is producing a similar one.

Expert Ricardo Martins says that IT Entrepreneurs think that everything is “easy” and everyone can start a Facebook page and use Google Ads. When we talk about IT Startups with just engineers, they need to learn about the market, build a business model and know more about strategy. Usually they only know about technology and they are not used to
dealing in a business setting or building a business model. They don’t know how to explain the product from a non-technological point of view, i.e. how to communicate their message from the client point of view, he explains.

Iqraaly CEO said that even when his company has 6 engineers out of 25 employees, they still are the most expensive on his payroll.

Even Tatweer, the Low-Tech Egyptian startup said that their product development consumes most of their time, however for them it is kind of a loop because they invest their time in market research and use the feedback to work on the product then continue the search and so on.

**Theme 3:** Tech entrepreneurs are technology-oriented and most of their time and resources are dedicated to the product/solution development.

**4.3.4. The Nature of Market Planning**

Most of the founders didn’t follow strategized market plans, some didn’t think it was urgent and others decided to rely on professional help.

Mazid Labs tried to do the marketing themselves for years but they had to hire a consulting agency eventually. The CEO said we realized we can’t do it all, and that we need help.

Expert Ricardo Martins agrees, he said that in his experience, he saw that this is a learning process and that more often than not entrepreneurs need professional help to carry out those activities because they spent a lot of time (and some money) and still not achieving their target. He thinks the best way is to get professional help and seek advice.

Sensegate Co-founder said they don’t know anything about the market planning and they are not even thinking about it since they are currently busy with validating the product and networking.

AddVolt said they know this is a “mistake” and that even if they are busy testing their product, they should start thinking of the business plan but they said “we honestly don’t
know anything about marketing‖. They are planning to officially launch the product in less than six months and they still haven’t designed a formal market plan yet.

FYI-GEMA group don’t have a plan and aren’t planning to do so anytime soon. The CEO said they are currently busy with the customers they have on their hands and they don’t have enough internal resources to receive new customers, hence it doesn’t make sense to plan for marketing now. He added that the group has been engaged in helping its clients carry out Online Marketing but not for themselves, even when the company’s specialty is web design. This is why the group just started a new venture for digital advertising and hired a team of five marketing professionals to cater for the existing customer’s marketing needs.

The CEO of Code125 even decided to temporarily exit the company from the market and take a year off to study marketing. He is originally an engineer and he has been struggling to get his company to take off. The company’s specialty is web design and development, but there was nearly no market planning and the CEO struggled to find and hire suitable developers. He said he now has a different vision with all the knowledge he acquired and he also has a new market plan.

On the other hand, JScrambler seemed to have very clear marketing goals. The company has a small but steady marketing team. They were familiar with the term CM, they even had a content calendar and they carried out diversified activities across owned and paid media, and more importantly as Carlos Conçalves, JScrambler Marketing and Sales Manager pointed out, the company keeps a balance between sales-generating traditional short-term activities and CM understanding-building activities. It is worth-mentioning that even when the marketing and sales manager isn’t an engineer, he has prior experience in working in the IT sector and digital advertising.

Another important observation is that both the Low-Tech startups seemed to have a more strategized and formalized marketing plans. Co-founders of both companies come from business backgrounds; they seemed to be on top of market planning and they were both familiar with CM as a concept and/or implementing one of two of its tools.
Explicas-Me for example knew a great deal of what is there to know about Online Marketing and Search Engine Optimization (SEO). They didn’t rely on paid advertising, they knew how to get around performance analytics and they also develop themselves by following various blogs and websites about Online Marketing and SEO. It is worth-mentioning that they knew their capabilities and core competencies. Tiago, the Co-founder, said “we can’t and won’t develop original content because we don’t have the capacity”, however he explained that they know how to curate content, where to find viral content and then they share it on the Facebook page. Afterwards they run various analytics tools to see what worked and what didn’t.

The rest of the companies either never heard of the term CM, or heard of it but understood it in a different manner than what it really means.

**Theme 4:** Tech entrepreneurs usually conduct market planning in a mostly non formalized manner. They also had little to no familiarity with the CM concept.

**Theme 5:** It is important to balance both short-term traditional sales-generating marketing activities with CM long-term understanding-building marketing activities.

**Theme 6:** Entrepreneurs from business backgrounds tend to conduct marketing in a more informed and structured manner.

**4.3.5. Limited Business Knowledge and Limited Funds**

Almost all interviewees agreed that limited business background was a bigger challenge than limited funds. The main reason can be summarized than if there is no prior knowledge about how to sell the product to begin with; there is no way for making sales and hence making money. However, a couple of companies said that the lack of money is the reason for limited or no marketing because there is no possibility to hire a marketing team.

Tatweer said that the lack of money is their biggest challenge. They have been building their market for years, they invested huge sums of money on market research and product development, now very little is left for marketing. They conducted a small paid advertising pilot on Social Media and it yielded good results, now they know what works and what
doesn’t, they wish there is money available for conducting more online advertising. However, they eventually decided to outsource the entire digital marketing to an agency.

Iqraaly adopts the same viewpoint. The CEO said he wants to invest in Radio Ads but there is no money.

“Without the money we can’t even develop the app, distribute it and market it. When the app starts selling we will then be able to understand the market dynamics, data analysis, customer acquisition and monetization challenges.” Iqraaly CEO, Abdelrahman Wahba.

Code125 for instance, exited the market altogether after a faulty or an incomplete market plan. The CEO is now taking some time off to study marketing and he has new plans when he reopens his company. He said he could have done a lot of things had he had any business knowledge.

JScrambler said that the lack of marketing knowledge maybe the biggest challenge, because technical entrepreneurs don’t fully grasp the market-related and positioning aspects as they are more focused on the technical issues.

AddVolt also thinks that the lack of marketing knowledge is a problem because they don’t know anything about digital marketing or business planning even when they know their target audience, they don’t know what the best communication tools are to present their technologies to key clients and how to position their idea to a specific type of client.

Pedro, the CTO of JScrambler added a valid point, that technical entrepreneurs need to depend on themselves at the beginning and to know every aspect about running a company, understand a little a bit about marketing, sales and media until later on, when the company affords to hire the marketing professionals. But meanwhile they need to run the business and coordinate the entire company.

He added that entrepreneurs tend to be more absorbed with the technology and they don’t know how to become business-oriented, at least in the beginning. However, they are flexible to understand their problems, starting with the market knowledge, and they know that it is important to interact with the system.
So we can learn from this that when marketing knowledge is an issue, entrepreneurs, even with the technical mindset, should and can acquire this knowledge by themselves before seeking advice from outside.

Expert Ricardo Martins concurs, that if money is not a problem, limited business knowledge can be a problem because wrong decisions will be taken and they will end in wasting the little money a startup has.

Expert Fady Ramzy adopts the same thinking “Funds are obviously a problem but it is not the main one. In Egypt we have motivated youth who have innovative ideas every day, and startups are a bubble as I mentioned before, hence they may start without having done their homework. They believe in their ideas and technology so much without being ready to explain to others or sell it. I encounter only very few entrepreneurs who have studied the market and conducted a comprehensive analysis before going to the market. Accordingly I can claim that a technical startup’s main challenges are lack of business planning, followed by lack of marketing knowledge then the limited funds.”

QEye agrees that it is the lack of business knowledge that is a bigger challenge than limited funds. The CEO refers his opinion to the fact that if money is not a constraint but business knowledge is limited, the available money can and will be wasted on ineffective marketing means.

**Theme 7:** It is important to self-acquire marketing knowledge using simple and affordable resources before seeking external help from business entrepreneurs, if any.

**Theme 8:** Limited business knowledge is a bigger challenge than limited funds, but still money is key.

**4.4. Emergent Themes: Experts Opinions**

Interviewing the experts not only tested the validity of the data collected from the startups, it also added a rich perspective to the study because the experts provided lessons from their experience with IT companies about what works and what doesn’t. Below are the main common themes from the expert interviews.
4.4.1. Characterizing a Startup

It not a surprise that the word “innovation” was the most common word said by the experts to define and characterize an IT Startup.

“An IT Startup is a new business which focuses on innovative technologies (whether disruptive or incremental) and it is using them to produce innovative products. Innovation is the key determinant of an IT Startup, even if using existing technology (incremental), it should end in producing something new (disruptive innovation), or otherwise it won’t be different than any other type of startup.” Expert Luís Cardía.

“I define an IT startup based on three axes: 1. Disruptive innovation 2. High Tech 3. High Growth. The idea must have a potential to escalate and boom. This is the value of innovation and this is the difference between booming and generating only enough revenues to pay your expenses.” Expert Ricardo Martins.

Experts seem to agree as well about how the technical entrepreneurs are so absorbed by their technology that they don’t have time for marketing, they don’t think it is urgent, they don’t think it is difficult or they give in too late and start hiring professionals late in the operations after they have wasted money, time and opportunities. “Tech entrepreneurs should change their predetermined ideas that business and soft skills are unworthy of their time and attention.” Expert Luís Cardía.

“An entity which starts with a group of young people who have great potential and motivation. They heavily concentrate on making their idea a reality hence they are involved in the technical side, afterwards they start working on incurring funds, other than working on evolving the product from the marketing side to fit customers’ needs. Egyptian tech entrepreneurs are savvy and brilliant but they don’t know how to commercialize their ideas. i.e. the technical effort invested in the product can’t be paralleled to the business and market value.” Expert Fady Ramzy.

Theme 9: While there is no consensus about a definition, an IT Startup is mainly characterized by innovation, scalability and high growth.
Theme 10: Tech entrepreneurs are highly absorbed and confident by their technology as it makes all the sense to them, and they tend to underestimate the importance of marketing activities.

4.4.2. Content Marketing (CM) and an IT Startup

The experts think that CM helps an IT Startup and any other startup for that matter to create awareness and build a brand identity. Experts emphasized the importance of assessing one’s current status and competencies then deciding on which paths to take.

“It is worth-mentioning that I also advise startups not to spend on paid advertising at the beginning. I tell them they have to work on the organic growth, create valuable content and develop their pages, online existence and high quality networks. After this they may invest in paid advertising. I see many startups starting with paid advertising and they get a lot of traffic to their pages even when those pages are empty and don’t have valuable content. And then they don’t even know what to do with all those numbers.” Expert Fady Ramzy.

“For a startup, they first need to assess their current status before investing in marketing and advertising activities. I advise my clients to build content and strong relationships with customers. They don’t necessarily have to build hard-core educative material; they can build a video for instance. Videos work very well, they are funny, short, simple and they include a message. A startup has to differentiate about building content just for the sake of it, and the content which attracts traffic. Large companies afford to hire freelancers to write millions of articles but this doesn’t necessarily mean they are of high quality or that they are valuable. One good article can bring about much of value and attracts much traffic. Content curation is also a strategy for cheap content development.

The beauty of CM is that it builds interest about the product, not based on the money but based solely on knowledge in addition to creating emotional links between the brand and the audience.” Expert Ricardo Martins.

“I first tell my trainees about the whole Online Marketing field, i.e it is an online channel which contains I first tell my trainees about the concept of the “Online identity” which
includes several online channels like the website, blog, social media, SEO, email marketing, etc. Then comes different content types, we only refer to content as the visible, readable or audible content without knowing specific types of it, I then discuss the concept of blogging, social media and what exists outside of Facebook, then I talk about CM and tell them what types of content matches which online channels. For instance, if we talk about visible content infographics come to mind, I discuss with them what is the best media to disperse an infographic, whether it is Facebook or the website or others. After this, I discuss creating original content, what types, where, what are tactics of engagement, and importance of having a content plan and calendar. People always engage with me after the session and ask me where to start and this proves to me that when they have the knowledge they always want to work. CM helps greatly in brand building, identity and awareness; it also helps create high quality engagement on Social Media and all the other types of media” Expert Fady Ramzy.

Theme 11: Using its various tools, CM helps a startup build its brand, generate interest and understanding about its product.

Theme 12: CM doesn’t necessarily have to expensive because a startup can hire freelancers or curate content.

Theme 13: It is important to have a documented CM plan and content calendar. Furthermore, it is more important that the developed content is valuable and of good quality more than being frequent.

Theme 14: Startups have to disperse their online identity across various media (social, owned, etc), not only Facebook.

Theme 15: Paid advertising should only be used after having built an actual customer base.

Theme 16: It is important to know how to address the traffic generated by developed content and how to analyze it (analytics tools and evaluation).
4.4.3. Providing Advice for an IT Startup

A common lesson experts shared was choosing the right product-market fit. i.e. if it makes sense to you, it doesn’t have to make sense for everyone! And also the timing.

“Companies of all sizes usually fail because they fail to understand their customers. They built something for themselves and not for the market. They must also assess the timing against the idea.” Expert Ricardo Martins.

“From my experience a startup can achieve great success when it provides a service that fits the culture and hits the right buttons at the right time. You align your business with main cultural features you know won’t die anytime soon and it clicks with people.” Expert Fady Ramzy.

“Your idea can be ahead of its time, for instance ten years ago online shopping was attempted to spread and it failed. However, today it makes sense.” Expert Ricardo.

Worrying too much about incurring investment was another emergent theme. Entrepreneurs want to incur funds just as the first sign of the product completion appears. How can you convince an investor to give you money when you haven’t yet sold for yourself? One of the interviewed startups raised the same issue and said “When I meet potential clients and convince them to try my technology, they first ask me how many of those have you sold? When I say none, they become worried and hesitant to invest in our project” Mahmoud Abdel Aziz, CEO of QEye.

“IT Startups throw huge amounts of money into the product development and hiring more personnel to work on this process. This cycle may even take more than two years. They only devote about 5-10% of their energy to the marketing issue and they sometimes mistakenly wait for the funds to come in for them to start planning for the marketing process.” Expert Luís Cardía.

“Don’t expect your growth to come swiftly and don’t expect that money will be injected in your enterprise, however start with the right business model and just enough value to produce short-term revenues and to build a reasonable customer base. After this, reinvest,
build a bigger team, then your growth will start escalating, you will start diversifying in new products and/or new markets, and then you will find investors approaching you without any effort on your part.” Expert Ricardo Martins.

“Acquire management skills and don’t assume that your current technological background is sufficient. Management encourages planning and you should include planning even in the product development stages. Management also includes soft skills like communication, leadership and motivation. A tech entrepreneur may start hiring the right people for his project on the onset, but given lack of this type of skills, he may be unable to retain them given lack of motivation, HR and organization skills for his team work, this will result in high turnover and even longer time for the product development phase. The members may have stopped believing in the idea, sharing the founders’ passion and they may feel uncomfortable and underappreciated.” Expert Luís Cardía.

**Theme 17:** It is important to have the right Product-Market fit, while giving special attention to the right time and culture.

**Theme 18:** It is important to grow organically first and to build an initial customers base, then efforts can be directed to diversify products and/or attract investors.

**Theme 19:** It is important to self-acquire management skills in order to be able to run a team.

**Theme 20:** It is important to have all team members believe in and stay motivated and involved in the startup’s solution under development.
5. Discussion and Analysis

5.1. Theory and Emerged Themes
The last chapter aggregated the emergent themes as per the case study analysis. Here we shall examine and make sense of them in light of the literature.

Hill (2001) talked about personal contact and networking (Theme 1). In his study SMEs showed a strong tendency to use contact networks freely, and this refers to the fact that personal networks enhance the quality of marketing decisions in SMEs. The European Commission, (2002)’s report about High-Tech SMEs in Europe coincides with this fact, it said that for high-tech SMEs networks are almost a necessity to perform innovation projects and tap the required information and know-how to conduct business.

Burton et al. (2002) and Gliga & Evers (2010) talked about the uncertainty that surrounds technological SMEs given their highly sophisticated products and that the public doesn’t know about the products as well. As this study demonstrated, all entrepreneurs understand the gravity of the uncertainty which surrounds them and they try to alleviate this by market validation. All interviewed startups, whether they are in the market validation stage or beyond, have executed market validation (Theme 1) to test their technologies and attract their first paying customers somehow. Experts concurred that the importance of validating the technology and entering the test the product’s success.

Researchers also talked about how entrepreneurs tend to be overconfident about their beliefs given a set of cognitive organizational and personal influences and that this overconfidence is induced by the context within which entrepreneurs function (young entrepreneurs versus old, founders of new ventures versus non founders) (Forbes, 2005; Salamouris, 2013). They dislike uncertainty as mentioned before, however they appreciate their own abilities that compensate for their dislike of risk, even when they obviously lack business backgrounds (Baron, 1998; Chell and Allman, 2002; Oakey, 2003). This can be linked to this study by examining the experts’ opinions about how young IT entrepreneurs are absorbed by their technologies (Theme 10); they don’t care if it doesn’t make sense to
the rest of the world as long as it makes sense to them. They also find it hard to communicate with non technical minds, like sales and marketing people.

Studies also showed how SMEs in general tend to follow non formalized marketing plans (Carson, 1993; Gilmore et al., 2001) they approach strategies in an unstructured manner and only few strategies were deliberately planned in advance (Scupola, 2002). This was demonstrated in this study by how the IT Startups, especially the ones in the market validation stage, not only do they lack business knowledge, but also they weren’t planning to start on the market strategies soon (Theme 4). One of the executives of another startup in a later stage in the lifecycle even pointed out than even when technical entrepreneurs don’t enjoy getting out of their “technological” comfort zone, one way or the other they will have to depend on themselves in understanding the market, and that they are flexible and willing to learn about running a business.

It was also demonstrated that limited business knowledge is a bigger challenge than limited funds for the IT Startups interviewed (Theme 8). This perhaps is the most significant findings by this study. This study selected the IT sector in specific because of this specific reason. Most entrepreneurs are engineers, they are technology oriented and they need to become market oriented, if they want their ideas to become a business (Gliga and Evers, 2010). Talking about CM in specific, the entrepreneurs’ low or no familiarity with it wasn’t unpredictable (Theme 4). Not only is the field not academically acknowledged, it is relatively a new practice, and even if one can find thousands of how-to guides on the internet, they are all generic, noisy and aren’t necessarily written by experts. Apparently every company now wants to be a content provider, and everyone is just creating content. However, it was observed that as it was outlined by the literature, almost every company is engaged in some sort of a CM strategy but the concept itself is blurred. They may not have a documented or verbal CM strategy but they are definitely engaged in CM (Content Marketing Institute and MarketingProfs, 2015; Kho, 2014). This study’s main purpose was to link those two weaknesses to create IT-Related Marketing drivers. In other words, explaining and demonstrating how CM can and will help IT Startups if adopted correctly alongside/within a sound Online Marketing strategy.
The interviewed experts shared their opinions about how entrepreneurs rush into paid advertising which gets them into all the wrong places (Theme 15). The Co-founder of Explicas-Mé, the Low-Tech Portuguese startup had a keen observation about how other new startups are spending all their VC money on paid advertising which gets them a lot of traffic to their pages while they don’t know what to do to those numbers (Theme 16) or say to those fans, who are most probably unrelated, interests wise, to those pages, expert Fady Ramzy concurs. This demonstrates the importance of not rushing towards a paid advertising strategy, having a documented CM strategy (Theme 13) including analytics and evaluation tools.

Expert Ricardo Martins talked about the importance of organic growth (Theme 18) and directing all focus towards building initial customer base then working towards diversifying the IT Startup’s products and attracting investors. In their research Gliga and Evers, (2010) pointed out the challenges of marketing high-tech products, and according to their study a high-tech SME is prone to the risk of being over-reliant on one or two solutions. Also in its report about European high-tech SMEs, the European Commission, (2002) said that diversifying the product range (at an early stage) to reduce risk and emphasizing customer orientation and service can be regarded as important and specific success factors of high-tech SMEs.

In conclusion, this section analyzed a sample of the themes extracted from the empirical research and linked them to the literature. All those findings lead to the construction of the following conceptual framework. The framework will establish the relationship between Content Marketing and IT Startups as it was demonstrated in the initial research framework and proved by the research. Relationships will be drawn between the IT Startups characteristics (positive and negative), IT Startups’ challenges, High-Tech SME Marketing, and the right CM tools to be used across the famous media trio.

Finally few pointers will be provided regarding monitoring and evaluation, so that implementing the CM tools is measured and analyzed.
Before the conceptual framework, the researcher felt a need to briefly discuss Egypt as an emerging market and how adding Egyptian IT Startups to the study presented an enriching perspective.

5.2. Egypt as an Emerging Marketing

Emerging markets have specific characteristics which don’t apply to the developed countries such as the frugal mindset and the need to produce with limited resources (Radjou and Prabhu, 2013). As the BRICS model has demonstrated, the emerging world is pioneering new practices that embrace rapid growth and intelligent improvisation (Stillman, 2013). Furthermore, in an emerging market, an entrepreneur has to create products and services that are able to withstand the vagaries of the emerging market context: no electricity, no spare parts, hardly any logistics infrastructure, customers with very tight budgets, and with an over responsive sensor for suffering value propositions (Doorneweert, 2015).

In Egypt, innovative enterprise development has taken off in the wake of the 2011 protests with thousands of youth turning to entrepreneurship as a means of creating economic opportunity as well as addressing social challenges (MEI, 2014).

The mass of young, educated and enlightened graduates in Egypt are now turning out an array of startups. True, funding is hard to come by, but local entrepreneurs are figuring out their own ways, often via a number of accelerators which have sprung up, as well as crowd-funding campaigns (Butcher, 2015). Leadership is developing by the day to support entrepreneurship, and startup activities that offer young people opportunities to build networks and launch their ideas are plentiful (e.g. Startup Weekend Cairo) (Ortmans, 2011). With a bustling population of 90 million, 50% of which are below the age of 30 and tech savvy, Egypt is suddenly staking a claim as one of the fastest growing entrepreneurial hubs in the world. The best aspect of doing business in Cairo is the readily available pool of talented developers, techies, and aspiring entrepreneurs who are hungry for work, with massive opportunity to penetrate already-existing markets and create new ones (VE, 2014).
This however doesn’t come easy as entrepreneurs have to fight several battles in the struggling economy. For instance after the Global Entrepreneurship Monitor (GEM) conducted a study on Egypt, experts believed that new and growing firms are not easily accessing new technologies, while there are very few channels for the transfer of new knowledge from universities to firms. Necessity-driven entrepreneurship is the main motive of early stage entrepreneurs in Egypt; a common feature of a factor-driven economy, and an expected outcome of the transition period the country passed through since the 2011 revolution (ENID, n.d.; Gemconsortium, 2012).

In short there are intense efforts underway to build an Egyptian entrepreneurial ecosystem that will allow youth entrepreneurship to flourish as a solution to the country’s socio-economic woes. Egypt is the Arab world's largest nation and the greatest untapped resource in terms of a talented people. The energy of those who crowded Tahrir Square needs to be channeled through opportunity to take ideas to the market (Ortmans, 2011).

5.3. Final Conceptual Framework: Making Sense of the Emerged Themes

The conceptual framework below, see Figure 7, constructed a universal relationship between the characteristics and challenges of an IT Startup as demonstrated by the literature and the themes which emerged from the empirical research. It is up to the startup to harness its internal competencies and transform its challenges into IT-specific drivers, just as the initial theoretical framework explained. Using the correct Content Marketing (CM) tools across various types of media is able to help the IT Startup create an effective CM program as a subset of the entire strategic high-tech marketing strategy, hence the IT Startup CM is emerged.

The empirical findings yielded 20 themes, see Table 8. Those themes were clustered in 4 groups: 1. IT Challenges, 2. IT Core Competencies to confront challenges, 3. High-Tech SME Marketing, 4. Marketing Drivers through CM tools. Table 9 demonstrates the clustered themes into the 4 groups.
An IT Startup has positive and negative characteristics as demonstrated in the literature and synthesized in Table 2. Below is a summary of the table:

<table>
<thead>
<tr>
<th>IT Startup Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong></td>
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<tr>
<td>- Heavy Technology Orientation</td>
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<tr>
<td>- Importance of business planning can be overlooked</td>
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<tr>
<td>- No formalized business plan</td>
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<tr>
<td>- Marketing and Sales are (considered)the same</td>
</tr>
<tr>
<td>- High costs, low funds, small team</td>
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</table>

(Source: Author)

Initially an IT Startup suffers from a group of challenges (Group 1) such as the risky technology in fast moving environment, difficulty attracting investors, limited business knowledge, limited funds, etc. Through harnessing its internal core capabilities and competencies (based on its positive characteristics) in Group 2, it is able to transform those challenges into drivers which enable it to execute marketing successfully Marketing Drivers (Group 3). For instance, forming personal networks, validating the product in the market, acquiring simple marketing and management knowledge (Group 2) helps the company overcome its challenges of being too technology-driven and having limited business knowledge as well as funds. At this level the startup entrepreneurs should know that their most important sought-after characteristics are innovation, scalability and high-growth. It is crucial to always think of the correct product-market fit and making sure the technology makes sense to the market the same way it does to the startup founders. This is made possible through effective communication between the team members to ensure sufficient motivation and engagement.
Table 8: Empirical Research Emergent Themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 1: It is important to form personal contact networks to help validate the product, attract the first-paying customers and trigger initial cash flows.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 2: Facebook is the most commonly used SM tool given its ease of operation, simple management and being with the mainstream audiences, but it is not enough.</td>
<td>G3</td>
</tr>
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</tr>
<tr>
<td>Theme 7: Tech entrepreneurs are highly absorbed and confident by their technology as it makes all the sense to them, and they tend to underestimate the importance of marketing activities.</td>
<td>G1</td>
</tr>
<tr>
<td>Theme 8: It is important to form personal contact networks to help validate the product, attract the first-paying customers and trigger initial cash flows.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 9: While there is no consensus about a definition, an IT Startup is mainly characterized by innovation, scalability and high growth.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 10: It is important to self-acquire marketing knowledge using simple and affordable resources before seeking external help from business entrepreneurs, if any.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 11: It is important to self-acquire management skills in order to be able to run a team.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 12: It is important to have all team members believe in and stay motivated and involved in the startup’s solution under development.</td>
<td>G2</td>
</tr>
<tr>
<td>Theme 13: Facebook is the most commonly used SM tool given its ease of operation, simple management and being with the mainstream audiences, but it is not enough.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 14: Entrepreneurs from business backgrounds tend to conduct marketing in a more informed and structured manner.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 15: Startups have to disperse their online identity across various media (social, own ad, etc), not only Facebook.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 16: Paid advertising should only be used after having built an actual customer base.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 17: It is important to have the right Product-Market fit, while giving special attention to the righttime and culture.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 18: It is important to have all team members believe in and stay motivated and involved in the startup’s solution under development.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 19: While there is no consensus about a definition, an IT Startup is mainly characterized by innovation, scalability and high growth.</td>
<td>G3</td>
</tr>
<tr>
<td>Theme 20: Facebook is the most commonly used SM tool given its ease of operation, simple management and being with the mainstream audiences, but it is not enough.</td>
<td>G3</td>
</tr>
</tbody>
</table>

(Source: Author)
Figure 7: Conceptual Framework of an IT Startup and the Effective Content Marketing

(Source: Author)
After this, SME Marketing (from a High-Tech Standpoint) is performed. After that the IT Startup entrepreneurs are implementing simple Online Marketing activities (Group 3) as an attempt to attract the initial first-paying customers and to see which activities are successful and which are not, i.e. acquiring marketing knowledge from the field and applying the self-taught knowledge (as demonstrated in Group 2).

For instance starting a Facebook page and sharing valuable content about the technology the startup develops. General advice from business entrepreneurs of the incubator or owners of larger companies can be sought. When initial signs of customer engagement are sensed through Facebook, it is time to disperse to other Social Media such as LinkedIn to engage with professional groups from the industry. There are Social Media for various types of professions such as IT programmers, web developers, photographers and more. It is important to seek those types of platforms and build a profile there. Furthermore, it is also crucial to pay attention to the owned media such as the website and the Blog. Blogging is a growing trend for all types of companies. It is important because it provides the company’s website with a content strength. Google and other Search Engines are tracking how websites are fed, and when the search engines crawlers track the company’s website and notice that is being fed with original content (which has key words included in the front page and related to the company’s industry), the Search Engines will up your website in the search results.

It is important to not waste the company’s limited funds on paid digital advertising early on operations, i.e. before having grown organically using owned and social media. Paid advertising normally ends in large volume of traffic that is not necessarily related to the company’s interest. Paid advertising should however be used with caution and sound selection.

Now, the IT Startup can utilize CM tools as part of its Online Marketing campaign (Group 4). The entrepreneurs should have more internet experience at this point and they are aware of the online marketing activities which work or do not work.
Generally as a company, clients are expected to migrate from the early sales stages to the actual purchase decision, using Clegg's model to pass through the following stages: (1) Website Visitor (2) Email Lead (3) List Subscriber (4) Customer and (5) Lifetime Customer (Clegg, n.d.).

Various CM techniques are employed here, again across different types of media. It is important to balance the traditional Online Marketing activities and CM activities. Even when entrepreneurs are usually concerned with short-term sales-generating activities, given their time pressure to achieve results and high expenses, executing and balancing both types of activities is important. Short-term results mostly include paid advertising including online banners, mass-emailing, sale promotion campaigns and others. They should be paralleled with CM activities which are concerned with developing or curating relevant educational content that is relevant to the IT Startup’s activities.

For instance early on the sales stages customers make comparisons between the IT Startup and competitors. Hence it makes sense to provide them with FAQs, case studies, demo videos, datasheets and more.

It is highly recommended to have and commit to a CM calendar in order to execute an effective CM campaign.

For instance, to manage Social Media, three things are important: 1. A content hub: website, blog, etc. 2. Resources to keep presence: the IT Startups needs to commit and to develop/share content regularly. 3. A content plan: main reason for communicating on a given platform (McPhilips, 2014). Hence it is wise to have a “persona” for each used one where the IT Startup exists: Twitter to tweet short “newsy” posts, Facebook to show the company’s personal or “fun” side, LinkedIn and for business relations and interacting with groups in the IT Startup’s industry. It is important to note that when the company’s website, Blog, Social Media pages are idle and ignored, this reflects in the ranking. Therefore the IT Startups should be committed to regularly developing or sharing content on different media or opting not to have several ones to begin with.
The most important thing is not to be startled by the variety of CM tools. Even with limited business knowledge and limited funds, relevant quality content can be developed through curation or hiring young freelancers. As the empirical research showed, tech entrepreneurs have the capacity to learn if they want to. Even if the internet resources are overwhelming it is possible to find valuable and trustworthy resources to learn from.

By the time the IT Startup will be able to build a customer base of loyal followers who are engaged in the content provided which they find interesting and they will find the product interesting as well. As it was demonstrated before CM builds awareness and generates understanding. For IT Startups building understanding is knowledge is crucial because the technologies developed are usually highly innovative and uncertain. This is the opportunity for the entrepreneurs to explain what the product is about and explain the technologies in ways the target audiences will understand.

For instance, moving along sales stages, potential customers are now considering to buy the IT Startup’s product with the impression that it must be as good as the knowledge they have received from the engaging content provided, i.e. they feel the company’s product can solve the issue the customer is having (Gagnon, 2014). It is now time to develop editorials such as the White Paper, or as Rampton, (2014) called it, the holy grail of Content Marketing. A White Paper can for example compile several survey answers into one well-designed, easily digestible download. The Leads (Stage 2 in Clegg’s model) now click on the sales page and converts into subscribers and provide some contact information. White Papers and the similar types of editorials create exclusive and nurturing content that a client knows it has been compiled just for their sake; it is the type of content which truly intrigues your leads. Besides White Papers other tools to employ include real informative editorials such as User Guides, personalized e-News Letters, and unbiased Product Comparisons. At this stage is the Sales Page is important, it should be engaging, informative and it has testimonials from other users to clear any doubts potential clients might have (Rampton, 2014).
Engaging with customers through valuable content helps the IT Startup evaluate whether their intended messages are understood or not, i.e. to test whether their technologies are making sense to people the same way they are making sense to them. As it was demonstrated in the empirical research, going to the market right away will help the entrepreneurs gather knowledge and revisit or modify their technologies according to the market response.

Finally, the IT Startup should be able to track all its developed or curated content to test its rate of success. For instance the IT Startup should have Key Performance Indicators (KPIs) for all types of developed and curated content. Simple Search Engine Optimization (SEO) is recommended to help place the content in the right places. Web Analytics tools should be utilized. Afterwards it is important to measure the effectiveness of the developed content through simple ROIs.

For instance SEO helps to know how Search Engines deploy their complicated algorithms to rank results. For example: optimizing the company’s URLs, meta descriptions, reasonable and wise use of keywords across the website, using free tools to help find key works (such as Google Adwords Keywords Tool) providing fresh and regular content, improving the website’s loading time by making the page load faster (possible via using one of the famous CDN services, compress large images and files, etc), implementing Google authorship to developed content and registering for search engines Webmasters, and also starting a Blog (Cain, 2012; Chris, 2013; Male, 2010; Shah, 2008).

Regarding performance analytics, if the IT Startup doesn’t have in-house solutions, various online tools are available such as Google Analytics, Social Media tools (Facebook Insights, etc), SimilarWeb and others.

Regarding KPIs, it is important to build measurable, response-generating marketing programs around developed content for lead generation (Gagnon, 2014). This helps quantifying and measuring the effectiveness of the content. Mediaforta, a Belgian CM company created a famous CM metrics model. According to the agency, CM metrics and Key Performance Indicators (KPIs) can be grouped as follows:

2. Content sharing metrics: likes, shares, retweets, inbound links.

3. Lead generation metrics: signups, subscriptions, filled-out contact forms, comments on Blog and Social Media posts.

4. Sales metrics: using online and offline conversion-measuring tools to calculate the sales impact after a given Content Marketing campaign.

Measuring the ROI on Content Marketing also makes sense by measuring the investment cost and then calculating the return (Peeters, 2013 in Clerck, 2014).

Now there is an actual IT Startup CM program at hand. Utilizing CM tools in ways specified for marketing innovative technologies in affordable and understandable ways is the essence of the IT Startup CM program. There is a variety of CM tools, each of which has its points of strength and effectiveness. It is up to the IT entrepreneur to select the appropriate tools and employ them for the IT Startup’s interest. As it has been said before, quality content doesn’t necessarily have to be expensive or too frequent, it can and should be affordable, simple, relevant and of quality.

An IT Startup by time will learn to have an online identity. By time CM tools which are relevant to the startup’s technology will be evident and the startup will have its loyal followers and customer base. Spreading knowledge and understanding is the essence of CM as it has been said before.
6. Conclusion

The research at hand examined two under-researched variables (Content Marketing and IT SME Marketing) then established a relationship between them both to act as an applicable framework.

Practitioners have devised and appreciated the importance of CM both as a practice and concept. Research has shown that almost any company is engaged in some sort of CM, even without knowing the concept. Considerable amounts of the digital marketing funds have been directed to creating content and providing knowledge. Mass emailing and noisy advertising are weakening everyday as brands realized the fact that in today’s competitive world of marketing, it is important that each brand acts as a media company to create valuable and knowledgeable content for its users. Pull strategies of Permission Marketing\(^6\) are now winning and increasing in popularity. Videos are shared every day, white papers are produced, SlideShare has grown like no other content platform and more is yet to come. Unfortunately academics haven’t been able to integrate Content Marketing as a concept to theory yet. It hasn’t been acknowledged by veteran academics as it is still new in the field.

The second variable is IT Startups (and related marketing). This variable as it appears has two parts: IT and Startup. The literature discussed SMEs in general, examined their characteristics, challenges and growth opportunities. By the new millennium academics started to trace how SMEs are using e-commerce and Online Marketing, and until 2007 studies indicated that e-commerce is still in its infancy. IT as a specific sector in the SMEs field is still vague and undefined. However, with the today’s global attention towards Silicon Valley and technology hubs all over Europe and Asia, tech startups, innovation and entrepreneurship are acquiring unprecedented importance and funding from large corporations and governments. This study proposed a definition for an IT Startup based on the past literature and then a theoretical framework was drawn to link CM as a practice to IT Startups with their defining characteristics and specific type of challenges.

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\(^6\) Permission Marketing is a concept developed by the digital marketing expert Seth Godin. He defines it as “the privilege (not the right) of delivering anticipated, personal and relevant messages to people who actually want to get them.”(Godin, 2008).
An empirical research was carried out across tech startups from both Portugal and Egypt. An in-depth multiple case-study approach was used. Thirteen interviews were held in total.

Portugal is an EU member state and it has been directing a lot of attention towards tech startups and incubators in response to the EU actions in the same field. Egypt is an emerging market which is reorganizing its economy since the January 2011 revolution. Analysts from prominent world organizations have been describing Egypt as an attractive technology hub and a place of promising entrepreneurs who are able to operate and innovate under considerable struggles and difficulties.

Findings resulted in a 20 emergent themes which were clustered into four groups:

1. IT-Related Challenges
2. IT-Related Drivers: Harnessing Core Competencies to confront challenges
3. Strategic High-Tech SME Marketing activities
4. IT-Related Marketing Drivers through Content Marketing to result in IT Startup CM program

First findings indicated no significant differences between IT-related challenges in Portugal and Egypt, startups in incubator or in no incubator. Furthermore, low-tech startups which were led by entrepreneurs from business background conducted marketing in a more informed manner.

IT Startups have positive and negative characteristics and suffer from a set of given challenges. Through harnessing their internal core capabilities and competencies IT Startups are able to turn those challenges into drivers. Using Strategic High-Tech SME marketing helps in creating those given marketing drivers. Finally, after having gained sufficient internet experience, IT Startups and tech entrepreneurs are able to employ a variety of CM tools across a variety of media. Effectiveness of CM tools success can be evaluated through several performance analytics and KPIs. At this stage the effective IT Startup CM program is created.
IT Startups use their self-acquired marketing knowledge to execute some simple High-Tech SME Marketing activities such as establishing personal networks, running a Facebook page and maybe using the advice of some business entrepreneurs from the incubator or from larger businesses.

The familiarity of Content Marketing as a concept was low to none. Low-Tech Startups from the empirical research, who come from business backgrounds, were more aware of the practice than their high-tech counterparts. In general CM is practiced one way or another through some of its tools but the familiarity with the concept is low.

Research had shown that IT Startups aren’t developing enough educational content due to lack of time, resources or knowledge. However it was established that IT Startups and tech entrepreneurs are able and have the capacity to learn and eventually develop content one way or another (curate, hire free lancers, etc).

Lack of business and marketing knowledge were shown by the research to be a bigger challenge than limited funds, however money is still key to execute several marketing activities. However, with poor marketing knowledge, even limited funds can be wasted on ineffective marketing activities.

It is clear that when CM is adopted right and clearly understood, it can and will help high-tech startups in their marketing strategies. Given the CM unique characteristics beginning by affordability, startups have the capacity to implement at least one CM tool. This was proved by this study after having empirically tested high-tech startups practices both in Portugal, an EU State Member and Egypt, an Emerging Market, with no significant differences.

A universal conceptual framework was constructed to link the four groups and result in the IT Startups CM program, given IT Startup characteristics and challenges.
6.1. Contribution to Theory

The present study addressed the need to broaden the academic knowledge about Content Marketing as a concept and as a practice.

The study aims at deepening the understanding of this concept as it has been overlooked by the academia. It passed beyond the limited concept of digital content on a company’s website or Facebook page to wider media and larger perspective.

New insights were also generated about IT Startups and their milieus. This study wanted to prove that this type of startups is specific and is characterized by certain features which aren’t share with other types of startups.

The resulted conceptual framework offered a relationship between Content Marketing practices and IT Startups. And so an essential theoretical contribution by this study is proving that IT Startups, even with their knowledge and financial constraints, can and are able to adopt CM as a practice for an effective Online Marketing strategy. IT Startups were discovered to have the capacity and competency to apply CM in a simple and affordable way.

This study also hopes to contribute with its proposed IT Startup Definition. As it has been discussed, IT is still a vague term and SME and Startup are used interchangeably. This study’s proposed definition will hopefully contribute to clarity.

6.2. Contribution to Practice

Even when the Content Marketing is rapidly growing as per myriad of research reports, tech startups either don’t know how to go about marketing in general and they mistakenly think that digital marketing can’t be conducted without funds and/or professional help. The main contribution of this study is that IT Startups were proven to be able to conduct simple Content Marketing without necessarily having access to business education or large amounts of funds. This study aims at making the constructed conceptual framework a blueprint for the novice IT Startup to rely on and use as an important guide to conducting effective Online Marketing.
Tech entrepreneurs should know that they are capable of acquiring self-taught knowledge about the market and running a business. They shouldn’t limit their time to only the technology development and should understand the grave importance of planning for the market early on operations. Marketing professionals are of course needed and resorted to, but at the beginning of operations when the only resources the IT Startups has is its team, entrepreneurs have to learn simple Online Marketing until their product enters the market dynamics and the initial customer base is built.

6.3. Research Limitations and Further Research Recommendations
In addition to the methodological limitations mentioned in Chapter 4, there are other problems in this research.

First of all, it would have been interesting to include more mature startups with larger number of employees, larger market expertise and existence in later stages of the startup lifecycle to examine the way they go about marketing. However managers were busy and weren’t interested in participating in research interviews because they frequently receive this type of request and they don’t have the time.

Second, the sample didn’t distinguish between incremental and disruptive innovations. IT Startups have a lot of subcategories in the IT and perhaps there was an opportunity to find defining differences between incremental innovative, disruptive innovative, web-based, manufacturing and more types of startups.

Hence further research recommendations include holding studies solely on Egyptian startups. With the global attention directed towards the Egyptian government, the new president, and entrepreneurs, new incubators are established every day and it would be interesting to hold a time-series study about the new emerging startups to track their success, survival, growth or exits.

Another interesting research can be held on a certain IT Startups sample, also longitudinal time-series approach, to test and track their Content Marketing adoption and see how this affected their growth, if any. This research calls for using a group of complicated metrics
which quantify the performance of qualitative marketing efforts, such as Content Marketing.
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Appendices

Appendix 1: Interview Guide

“How can IT Startups integrate Content Marketing into their Online Marketing Strategy, given limited business knowledge and limited funds?”

Thank you for agreeing to participate in this interview. This study is trying to examine how IT Startups market themselves online and use Content Marketing, if any, in their online marketing endeavors.

This interview will be recorded to help the researcher in the analysis and the aggregated results will be included in the conclusions section of the study. If you want the information about your company to be anonymous please say so; however the researcher assures you that no data about your company will be shared with outside parties.

Below are the questions you will be asked in the interview. You DO NOT have to prepare any answers before the actual interview, the questions are only sent to you to provide you with an idea of how the interview will go. You can also print them beforehand to facilitate communication.

Attending the interview:

<table>
<thead>
<tr>
<th>CEO</th>
<th>VP</th>
<th>Sales and Marketing Director</th>
<th>Product Development Manager</th>
<th>Other. Specify</th>
</tr>
</thead>
</table>

1. Tell me about your company background. i.e. main product, history, founders background, main group of clients (B2B or B2C or both).
2. Is the company self-funded or VC backed or both?
3. Do you sell your product online directly, use a reseller or both?
4. What are the main online marketing activities the company is currently engaged in? Which ones proved most success and others were discounted?

5. Please rate the following three media in terms of usage from 1 to 3; 1 being the least commonly used and 3 being the most commonly used:

<table>
<thead>
<tr>
<th>Owned Media</th>
<th>Paid Media</th>
<th>Earned Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website, Blog, Social Media (Facebook, Twitter, LinkedIn, etc), Others</td>
<td>Banners, Google AdWords, Paid Search, Sponsorships, Others</td>
<td>Positive publicity, Buzz, Content which went viral, others</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

6. Is the company currently engaged in/produces any of the following activities/editorials?

<table>
<thead>
<tr>
<th>Downloadable educational Resources on the website: Case Studies</th>
<th>Blog Articles</th>
<th>Articles on other websites</th>
<th>E-newsletters</th>
<th>E-Annual Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Papers</td>
<td>Co-produced articles with other companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, Specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual Conferences</td>
<td>Infographics</td>
<td>Mobile Apps</td>
<td>Mobile or Desktop Games</td>
<td></td>
</tr>
<tr>
<td>Webinars</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Branded Content (Using a media vehicle to tell an engaging story to your customers then think of how to link it to your brand, unlike traditional advertising where you focus on your product at the beginning) Specify.

Licensed/Syndicated Content (content published on your own site that you give permission to one or other parties to post a copy of that content on their site).

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7 Branded content marketing campaigns are often associated with entertainment-type content, such as creative video advertising. The aim is to resonate with the consumer on an emotional level rather than focusing on the actual product and USPs. *Our Social Times.*
7. Which of the above techniques proved more successful to your company and which were discontinued?

8. Does successful content necessarily mean more sales? How do you explain/define successful content?

9. Do you outsource content development? YES □ NO □ Why?
   If the answer is no, who in the organization develops most of the content or editorials?

10. Do you utilize any of the web Analytics or Performance Metrics Tools to evaluate marketing strategies success or not?

<table>
<thead>
<tr>
<th>Google Analytics □</th>
<th>KissMetrics □</th>
<th>Alexa □</th>
<th>OpenWebAnalytics □</th>
<th>Others □</th>
</tr>
</thead>
</table>

11. Are you aware of or currently making advantage of any of the following websites to ameliorate your Online Marketing strategies and knowledge?

<table>
<thead>
<tr>
<th>Online Technology Magazines</th>
<th>Latest Business News and Researches</th>
<th>About Content Development for all businesses</th>
<th>Content Development Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Techcrunch □</td>
<td>BusinessInsider □</td>
<td>CMI □</td>
<td>HubSpot □</td>
</tr>
<tr>
<td>Mashable □</td>
<td>Forrester □</td>
<td>MarketingProfs □</td>
<td>Marketo □</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Curata □</td>
<td>Pardot □</td>
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<tr>
<td></td>
<td></td>
<td>Outbrain □</td>
<td>Eloqua □</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Citrix □</td>
</tr>
</tbody>
</table>

12. Please rate the amount of time and resources dedicated to the following tasks from 1 to 5; 1 being the least resource consuming and 5 being the most resource consuming.
13. Do you consider funding a challenge regarding marketing your enterprise? Please explain.

14. Do you consider lack of marketing knowledge or business education a challenge regarding marketing your enterprise? What are your plans to address it?

15. In your viewpoint, what distinguishes an IT Startup from a regular Startup, i.e. what are the special features of an IT Startup that wouldn’t exist in other types of Startups?

16. Are you aware of the term Content Marketing? Have you seen any of those stats before?

https://www.onespot.com/resources/content-marketing-stats/

17. Now that you are familiar with the concept of CM, its techniques and some stats about it, will you be planning to invest (more) in Content Marketing activities such as that one mentioned above in the future? Why? YES ☐ NO ☐

18. Please, think of two or three lessons learned for other IT startups to utilize in terms of marketing themselves online.

19. Please choose the range of your company’s last annual turnover and total # of employees:

| <€5K | €10K to €20 | €20K to €30 | €30K to €40 | >€40K |

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*Content marketing is the marketing and business process for creating and distributing relevant and valuable content to attract, acquire, and engage a clearly defined and understood target audience – with the objective of driving profitable customer action. CMI.*
Appendix 2: Links to the Individual Case Study Interviews’ Transcriptions

1. AddVolt

https://drive.google.com/open?id=0ByGBA5hCrN1ZUWxDdXV0NHFMZ2s

2. Explicas-Me

https://drive.google.com/open?id=0ByGBA5hCrN1ZNDFVWmxQT0FvSjQ

3. FYI-GEMA Group

https://drive.google.com/open?id=0ByGBA5hCrN1ZMUN3eTJ5Q3IeElU

4. Iqraaly

https://drive.google.com/open?id=0ByGBA5hCrN1ZR0Q5OXNOcXlpOU0

5. JScrambler

https://drive.google.com/open?id=0ByGBA5hCrN1Zd0ZhLWNlaTRZVEE

6. Mazid Labs

https://drive.google.com/open?id=0ByGBA5hCrN1Zb2pqdHNGbGFjQWM

7. Tatweer International

https://drive.google.com/open?id=0ByGBA5hCrN1ZWpURmJIWlpTU1U

N.B. Not all interviews with startups were transcribed as the Author didn’t feel the need to after having research data saturation.

Opening: My research topic is ______________ and I am investigating __________ aspect (research question) of it.

“How can IT Startups integrate Content Marketing into their Online Marketing Strategy, given limited business knowledge and limited funds?”

Thank you for agreeing to participate in this interview. This study is trying to examine how IT Startups market themselves online and use Content Marketing, if any, in their online marketing endeavors.

This interview will be recorded to help the researcher in the analysis and the aggregated results will be included in the conclusions section of the study. If you want the information about your company to be anonymous please say so; however the researcher assures you that no data about your company will be shared with outside parties.

Below are the questions you will be asked in the interview. You DO NOT have to prepare any answers before the actual interview, the questions are only sent to you to provide you with an idea of how the interview will go. You can also print them beforehand to facilitate communication.

1. Describe your professional (and/or personal) experience relating to Small Businesses, Online/ Content Marketing and/or Business Development.

2. What do you think is poorly understood or unresolved in Online Marketing and SMEs? i.e. What do you think is the most mistaken idea about that?

3. Are you familiar with any academic work or field research done on the SME and/or Online Marketing? Do you side with any of it?

4. Given my current results of the Literature Review and the interviews I conducted, what do you think is a possible answer to my research question? In your judgment, what might
be some useful research studies that should be undertaken with regard to this topic/question?

- **Literature Review gap:** Studies done on utilizing the internet in general for SMEs, the resource shortage for SME entrepreneurs, the growth cycles, no definite definition for IT Startup. Only field knowledge about CM in all fields but not peer-reviewed research. I want to establish a relationship between both.

- **Results found so far:** SME Entrepreneurs practice few types of CM without knowing what it is, they are not ready to invest in developing their own content in the near future given time and personnel shortage. There is no common vision about when to know if the idea is working or not. Only short-term sales generating solutions are the ones pursued. Owned media is heavily used. Product development and day-to-day customer case consumes a lot of time.

5. How can you define an IT Startup? In your viewpoint, what distinguishes an IT Startup from a regular Startup, i.e. what are the special features of an IT Startup that wouldn’t exist in other types of Startups?

6. What are the main challenges you think they face? Especially funding and marketing education. - Do you think lack of marketing education is a problem? i.e. is Engineering background with some self-taught marketing sufficient? At what extent? - Do you think funding is problem for SME entrepreneurs? To what extent?

- Is current marketing educations outdated? do you know more self-taught knowledge?

- How does Larger companies CM and M differ from that of the SMEs?

7. Do you think culture plays a role in the idea of IT Startups? i.e. How do you think IT Startups in Portugal are different from the ones in UK and/or Egypt?

8. Do you think CM can really contribute in building their brands and online strategies?

9. In your projects, do you recommend using CM to your clients? Are familiar with the concept?
10. Please provide a few lessons for novice IT startups to follow.

11. Are there any additional points you advise me to pursue in my research?

**Appendix 4: Links to the Individual Expert Interviews’ Transcriptions**

1. Expert Fady Ramzy
   
   https://drive.google.com/open?id=0ByGBA5hCrN1Zd0ZhLWNlalphaTRZVEE

2. Expert Luís Cardía
   
   https://drive.google.com/open?id=0ByGBA5hCrN1ZVl9OQkNGY3dPWVU

3. Expert Ricardo Martins
   
   https://drive.google.com/open?id=0ByGBA5hCrN1ZVl9OQkNGY3dPWVU

**Appendix 5: Startup Lifecycle Model**

Adapted from (Compass, 2013; Dodge and Robbins, 1992; Hanks et al., 1993; Lester et al., 2003)

**Stage 1: Market Validation**

- Product is tested on potential customers
- No official market entrance.

**Stage 2: Start-Up**

- Product development is priority
- Product market fit
- Initial market growth
- First paying customers.
Stage 3: Early Growth and Scale

- Product commercialization is priority
- More customer acquisition and hires
- Rapid expanded production and scalability improvements.

Stage 3a: Diversification

- Stage 3 + Broader business concept.
- Developing new lines of production in response to new market needs.

Stage 4: Maturity and Stability

- Maintaining achieved market position
- More complex and formalized organizational structure
- Formal Marketing/Sales department
- Plans to disengage from investor’s help.

Stage 4a: Diversification

- Stage 4 + Broader business concept
- Developing new lines of production in response to new market needs.

Stage 5: Decline or Exit

- Losing market position
- Beginning of the end of the product
- Failure to return to the last point of success
- (Possible) decision to exit altogether.