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Licenciada em Ciências da Engenharia e Gestão Industrial

Digital Marketing practices amongst start-up accelerators

Dissertação para obtenção do Grau de Mestre em
Engenharia e Gestão Industrial

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*To my dad, Fernando
Our north our south our east and our west
1959-2015*

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Abstract

Digital Marketing (DM) is a vital marketing tool used by all types of companies nowadays. Accelerators are companies that appeared in the last few years to help start-ups grow and, just like any other company, they are using DM as well.

This research explored which were the DM strategies used by accelerators. To do so, an online survey was shared amongst more than 300 accelerators across the world, whose results were analyzed by using SPSS Software. Correlation analyses and significance tests were conducted to verify the existence of relations between characteristics such as: location, type of accelerator, DM objectives of the accelerator or digital channels used to reach different audiences (e.g. start-ups, corporates, investors, universities or media).

As a result of these analyses, it was verified that the number of people working full-time within the accelerator was one of the characteristics of an accelerator that influence the definition of its DM strategy. Moreover, the digital channels used more frequently by accelerators are: Website, E-mail, Facebook and Twitter.

These discoveries helped designing a conceptual framework that will guide start-up accelerators while defining its DM strategy, increasing the added-value start-up accelerators bring to society.

Keywords: Digital Marketing, strategy, correlation, accelerators, entrepreneurship

Resumo

O Marketing Digital (MD) é uma ferramenta de marketing indispensável, usada por qualquer tipo de empresa hoje em dia. As aceleradoras de *start-ups* são organizações que apareceram nos últimos anos para ajudar as *start-ups* a crescer e, como qualquer outra empresa, também recorrem ao MD.

Esta dissertação explora as estratégias de MD usadas pelas aceleradoras. Para tal, foi partilhado com mais de 300 aceleradoras um questionário *online*, cujos resultados foram analisados usando o *SPSS Software*. Realizaram-se análises de correlações e testes de significância para verificar a existência de relações entre características como: localização da aceleradora, objetivos de MD da aceleradora ou canais digitais usados para alcançar diferentes tipos de audiência (e.g. *start-ups*, empresas, investidores, universidades ou *media*).

Como resultado das análises, verificou-se que o número de pessoas a trabalhar *full-time* na aceleradora é uma das características que influencia o delineamento da sua estratégia de MD. Para além disso, os canais digitais mais frequentemente usados são: *Website*, *E-mail*, *Facebook* e *Twitter*.

Estes resultados permitiram desenhar um modelo conceptual, que ajudará as aceleradoras de *start-ups* a definir a sua estratégia de MD, contribuindo para o aumento do valor acrescentado que as aceleradoras proporcionam à sociedade.

Palavras-chave: Marketing Digital, estratégia, correlação, aceleradoras, empreendedorismo

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Acronyms

4G	Fourth Generation
5G	Fifth Generation
AHP	Analytic Hierarchy Process
B2B	Business to Business
B2C	Business to Consumer
BCG	Boston Consulting Group
CEO	Chief Executive Officer
CRM	Customer Relationship Management
DAO	Data Asset Optimization
DM	Digital Marketing
DNA	Deoxyribonucleic Acid
EU	European Union
GE	General Electric
GPS	Global Positioning System
KPI	Key Performance Indicator
MD	Marketing Digital
MMS	Multimedia Messaging Service
N/A	Non-Applicable
NBIA	National Business Incubation Association
PCA	Principal Component Analysis
PDF	Portable Document Format
PPC	Pay-Per-Click
PwC	PriceWaterhouse Coopers
QR	Quick Response
SEM	Search Engine Marketing
SEO	Search Engine Optimization
SMM	Social Media Marketing
SMS	Short Messaging Service
SMART	Specific, Measurable, Actionable, Relevant, Time-related
SOSTAC	Situation, Objectives, Strategy, Tactics, Action, Control
SPSS	Statistical Package for the Social Sciences
SUP	Startup Chile
SWOT	Strengths, Weaknesses, Opportunities, Threats
TOPSIS	Technique for Order Preference by Similarity to Ideal Solution
TV	Television
UGC	User-Generated Content
USA	United States of America
Wi-Fi	Wireless Fidelity
WOM	Word of Mouth
WWW	World Wide Web

Chapter 1

Introduction

Chapter 1 presents a context frame of Digital Marketing and start-up accelerators. The main reasons behind the development of the present dissertation are also presented, as well as its objectives and which are the research questions to be answered by the end of it. Furthermore, the methodology followed throughout the dissertation and its structure are described.

1.1 Context

Over the last two decades, technology has evolved at an impressive fast pace (Nishijima et al., 2017). Broadly speaking, the appearance of Web 2.0 allowed all Internet users not only to read content, but also to write it themselves and share it with all the community (Constantinides and Fountain, 2008; Taiminen and Karjaluoto, 2015). Easy access to smartphones, the modernization of countries and the increase of Internet users are some of the main reasons why consumers started using Internet to help them in everyday tasks, from checking bank accounts on the mobile to help them decide online which are the best products they should buy (Statista, 2017a).

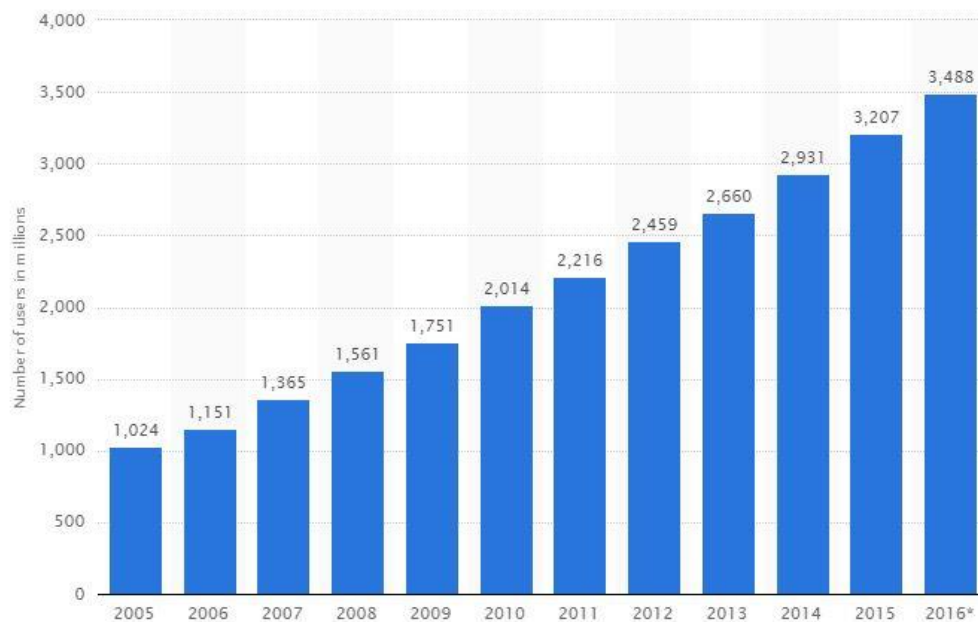


Figure 1.1 - Number of internet users worldwide from 2005 to 2016 (in millions) (Statista, 2017).

Along with the evolution of the Internet, new ways of practicing Marketing were also introduced and companies started exploring new ways of acquiring and converting customers (Tiago and Veríssimo, 2014; Durmaz and others, 2016; Piñeiro-Otero and Martínez-Rolán, 2016). Digital Marketing is based on traditional, conventional marketing, but involves tools, channels and strategies that can only be applied online (Chaffey, 2006; Ryan and Jones, 2009; Piñeiro-Otero and Martínez-Rolán, 2016).

Companies who have online products, for example such as EasyJet, usually use DM as a way to sell their product or service, while offline companies, for example such as Nestlé or BP, use it as a complement to drive brand awareness and as a direct communication-channel with customers (Chaffey, 2006; Stokes, 2015).

According to Chaffey (2006) and Durmaz and Efendioglu (2016), companies are using DM as a platform for advertising, sales transactions, product distribution, customer service or relationship building. Website, search engine optimization (SEO), e-mail marketing or social media marketing (e.g. Facebook, Twitter, Instagram or LinkedIn) are being used by companies to drive brand awareness. Forums (e.g. Quora, Reddit) are being used to start an online dialogue with customers.

Amongst so many different digital channels and purposes for establishing a DM strategy, it is highly important to define a marketing strategy which helps not only to build a solid reputation of the company, but also to reach out efficiently and effectively the target audience. To do so, the company should understand

these four dimensions: the environment (location, industry trends), the business (purpose of the company), customers and competitors (either local or global) (Stokes, 2015).

Regarding the environment surrounding companies, the rise of digital technology is starting to increase company's managers interest in adopting a digital innovation strategy (Nylén and Holmström, 2015). According to these authors, digital innovation is "a means for new entrants to leverage digital technology". The best at doing so are entrepreneurs who, according to Weinberger (2016), are the ones that drive innovation the most. By having new ideas overnight, entrepreneurs create not only new businesses, but also jobs and help the economy grow.

Digital innovation is present throughout all players from the entrepreneurial ecosystem: from start-ups to accelerators, investors, corporates, and more. Pulizzi (2015) believes start-ups can succeed by having a fierce DM strategy that allows to attract the right audience to the desired channels. Similarly, accelerators also need to use DM to attract the right audience (start-ups, mentors, ...) in order to have successful acceleration programs, filled with talented people (Cruz, 2016).

Accelerators help start-ups grow by providing an intensive program to a selected cohort of start-ups that lasts usually between 3 to 6 months, usually in exchange of a certain equity. In the acceleration program, start-ups have access to mentoring, an extensive network of experienced entrepreneurs and investors, and to other programmed events. The end of the program culminates in a Demo Day, where start-ups can pitch on stage to attract angel and venture capital investors, as well as to get media coverage (Miller and Bound, 2011; Cohen and Hochberg, 2014; Cruz, 2016).

According to Cohen and Hochberg (2014), the first accelerator founded was Y Combinator back in 2005 in Cambridge, Massachusetts (USA) followed by TechStars in 2007 in Boulder, Colorado (USA). Since then, the number of new accelerators founded per year has been increasing, as presented in Figure 1.2 (Miller and Bound, 2011; Gust, 2015). In blue are represented new accelerators founded in Europe, in dark blue new accelerators founded in the USA & Canada, in yellow new accelerators founded in Middle-East, in red new accelerators founded in Asia and in green new accelerators founded in Latin America.

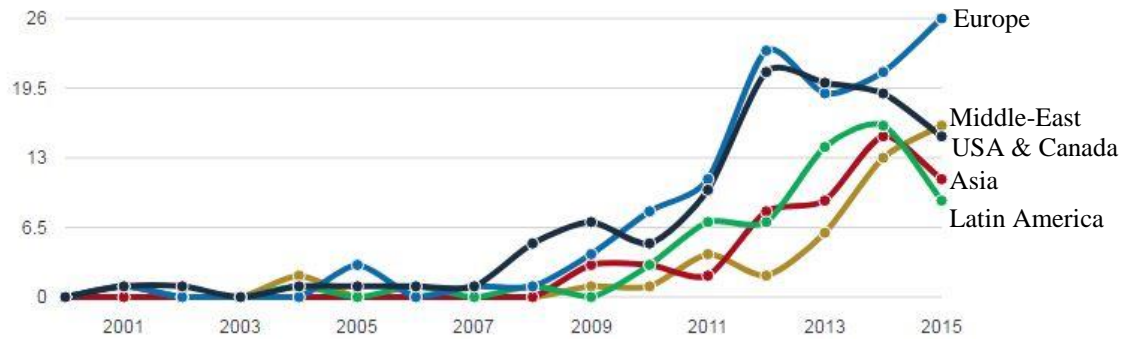


Figure 1.2 - Number of new accelerators per year (Gust, 2015).

Accelerators vary differently across the world. They can be funded by investors, corporates or public authorities. Their programs can be very generic (with no focus in a specific industry or product, such as TechFounders), more focused in a specific industry sector (e.g. vertical acceleration programs, such as Barclays Accelerator focused on FinTech) or focused in a specific technology (e.g. horizontal acceleration programs, such as AlphaLab focused on software and hardware products). There are also accelerators focused in ideas in a very early stage of development (e.g. pre-acceleration programs, such as S Factory from Start-up Chile).

Due to the current accelerator's growth, few research has still been made regarding them. Moreover, when it comes to DM few is known about accelerators' strategy, and accelerators cannot compare their strategies to Y Combinator or TechStars' DM strategies, since they emerged in a very different political, economic and technological contexts (NESTA, 2015). This dissertation focus on the use of DM by the recent and rapidly growing phenomenon of start-up accelerators.

1.2 Research Objectives

The present dissertation aims to provide relevant information to the accelerator community regarding the DM strategies of start-up accelerators nowadays. There is a focus on how characteristics of accelerators (such as location, type of funding, nature of the acceleration programs ...) influence their DM strategy.

Different aspects of a DM strategy will be explored, namely: the frequency of using DM to reach pre-defined objectives, the frequency of using digital channels to reach certain audiences, and which are the challenges in DM faced by accelerators. How do the characteristics of an accelerator influence these aspects will also be explored. Furthermore, E-mail, Facebook and Twitter will be studied a bit more in depth regarding its objectives, KPIs and frequency of strategy evaluation.

Providing information about the acceleration sector is extremely relevant to start building a consistent and current state of the art of how accelerators are evolving. Only after understanding the global picture is possible to start looking ahead and to explore the future possibilities. Up until the date this research started being developed, DM strategies of start-up accelerators were quite an unexplored area, only enhancing the added value of this research to this community.

1.3 Research Questions

By the end of this dissertation, the author aims to answer the following questions:

1. How is DM helping accelerators reaching their main objectives?
2. Which digital channels are accelerators across the world using?
3. How do the characteristics of accelerators influence the frequency of using digital channels?

In order to do so, these steps will be followed throughout the dissertation:

- Provide a **theoretical contextualization** about DM channels, strategies, tools and techniques, and also about accelerators, in order to put the reader up to date with the latest trends in these sectors;
- **Development of a survey** based not only in the previous review of the state of the art, but also on interviews conducted along with accelerators' marketing managers. This survey was analysed afterwards and allowed to conclude there were characteristics of accelerators that influence the definition of their DM strategy;
- Ultimately, it will be provided a **conceptual framework** based on the accelerator's characteristics, their DM objectives and digital channels used. Providing this framework will resume the data collected before, thus allowing the reader to understand more easily which are the relevant insights that came out from the survey;
- **Case studies** were conducted, in order to collect other important aspects of DM strategies used by accelerators and also to help validate the conceptual framework designed. The interviews were conducted amongst accelerators that come from different locations and different sectors (private or public), thus have different business models that were considered worth studying.

1.4 Methodology

The methodology used to conduct this study is explained within this section, specifically the research design and data collection methods used.

1.4.1 Research Design

This dissertation followed a methodology which is split into 6 steps and illustrated in Figure 1.3.

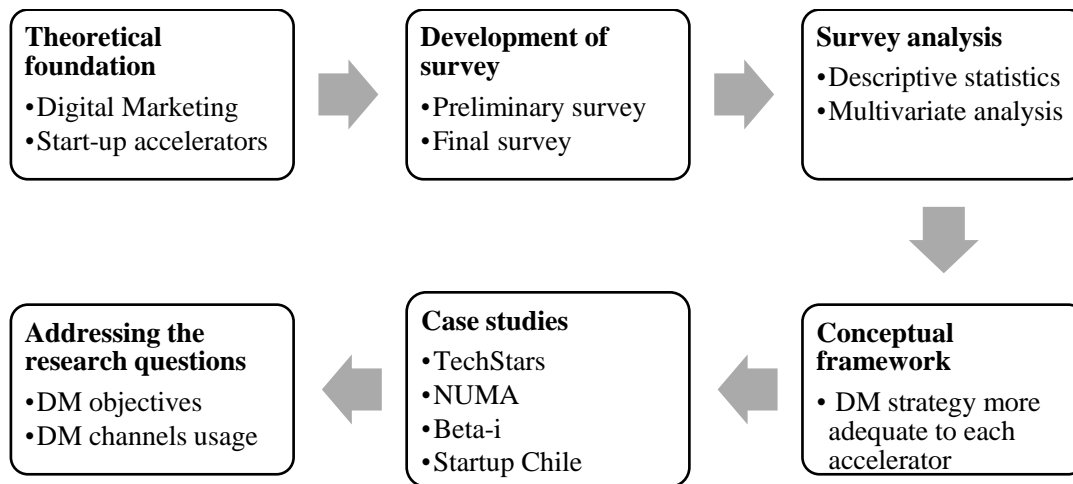


Figure 1.3 - Dissertation's research design.

Firstly, it was given a theoretical foundation on DM and start-up accelerators based on the revision of the literature. By doing so, it was possible to identify the research questions which guided all the dissertation. Besides, it allows the reader to get updated and/or acquainted with recent trends on these areas.

Then, a preliminary survey was developed, which got feedback from Professor Aneesh Zutshi, Professor António Grilo, NUMA Barcelona and Beta-i. The final survey was then shared worldwide amongst start-up accelerators.

The third step involved analyzing the results of the survey, namely using descriptive statistics and multivariate analysis. Based on these analyses, it was possible to identify the most relevant and interesting characteristics, objectives and channels to be studied, and to summarize them into a conceptual framework that gathers the most relevant information collected from the survey and can help accelerators to define their DM strategy.

Furthermore, case studies were developed by conducting Skype interviews, which also helped validating the most important aspects from the conceptual framework. Finally, the research questions identified at the beginning of this research were addressed and recommendations for the future were given.

1.4.2 Data Collection Methods

Data used within the dissertation was collected from a variety of sources summarized in Figure 1.4.

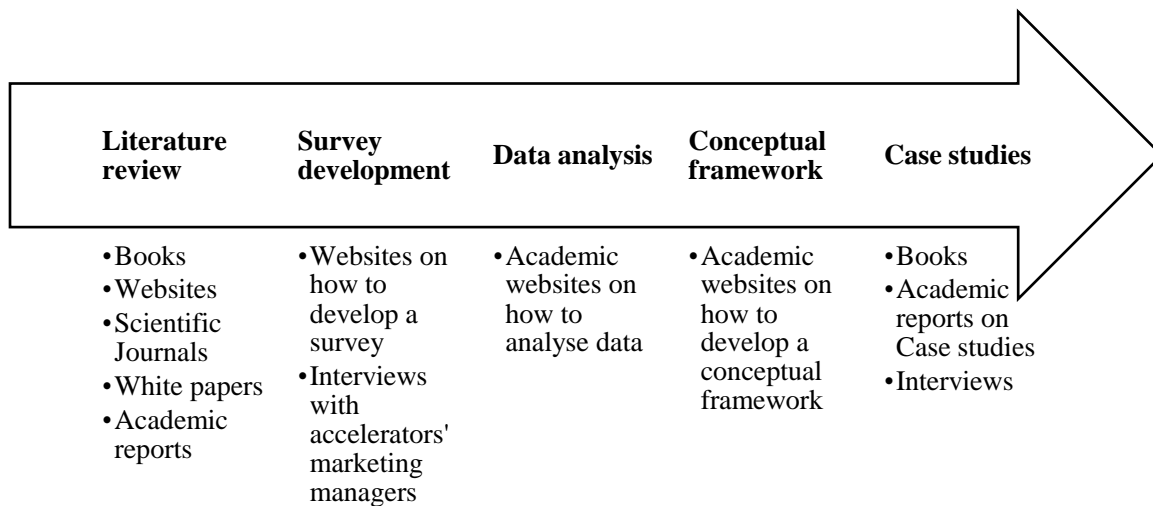


Figure 1.4 - Data collection methods.

Literature review gathered information on two areas: DM and start-up accelerators. Regarding DM, books, websites, scientific journals, white papers and academic reports were used. Due to the digital era we are currently living in, this area has a significant amount of information available and has been studied in depth by recognized authors such as Dr. Dave Chaffey. When it comes to start-up accelerators, the information available is fewer and not as reliable. However, reports from NUMA, NESTA, Beta-i, and Susan Cohen and Yael Hochberg were extremely important while doing research upon this area.

Taking into consideration that the literature review about DM within accelerators was not vast, it led to the development of the research questions and of a survey, which was structured with the help of websites, reports and books on survey development, DM and start-up accelerators. To validate the survey, interviews were conducted with marketing managers from Beta-i and NUMA Barcelona, leading to a final survey that was conducted amongst start-up accelerators around the world.

The analysis of the results and the development of a conceptual framework that can help accelerators define their DM strategy were only possible due to reliable websites about statistics, and also to Professors Joaquim Pina, Aneesh Zutshi and António Grilo.

Finally, case studies were developed by interviewing marketing managers from different types of accelerators. To structure these case studies, the book *Case Study Research: Design and Methods* from Robert Yin was of extreme value.

1.5 Structure of the dissertation

The present dissertation is divided into seven chapters. The first one gives a brief of the dissertation, by presenting a theoretical contextualization, identifying the research objectives and research questions, and explaining the dissertation's methodology.

The second and third chapters present the review of the literature on DM and start-up accelerators. The second chapter presents a contextualization of the Internet, Web 2.0, DM definition, DM tools and techniques, and of how companies are using DM nowadays. The third chapter explores the definition of accelerator, distinguishes it from other entities, presents the different types of accelerators, comments on its growth in the last few years, and briefly explores how DM has been used in the entrepreneurial sector.

The forth chapter will shed a light on the results of the survey analysis, which is based on descriptive statistics. The fifth chapter presents the results obtained through the multivariate analysis, namely: correlation analysis, significance tests of differences between means and Principal Component Analysis. These allowed to identify what influence the definition of a DM strategy by start-up accelerators. By doing so, the relevant information was compressed into one easy-to-read conceptual framework that can guide start-up accelerators on defining their DM strategy.

The sixth chapter presents a collection of case studies conducted amongst start-up accelerators, which further analyze the results within the last three chapters.

Finally, the seventh chapter presents the conclusions of the dissertation, by answering to the research questions, commenting the limitations of this research, and proposing topics for further research.

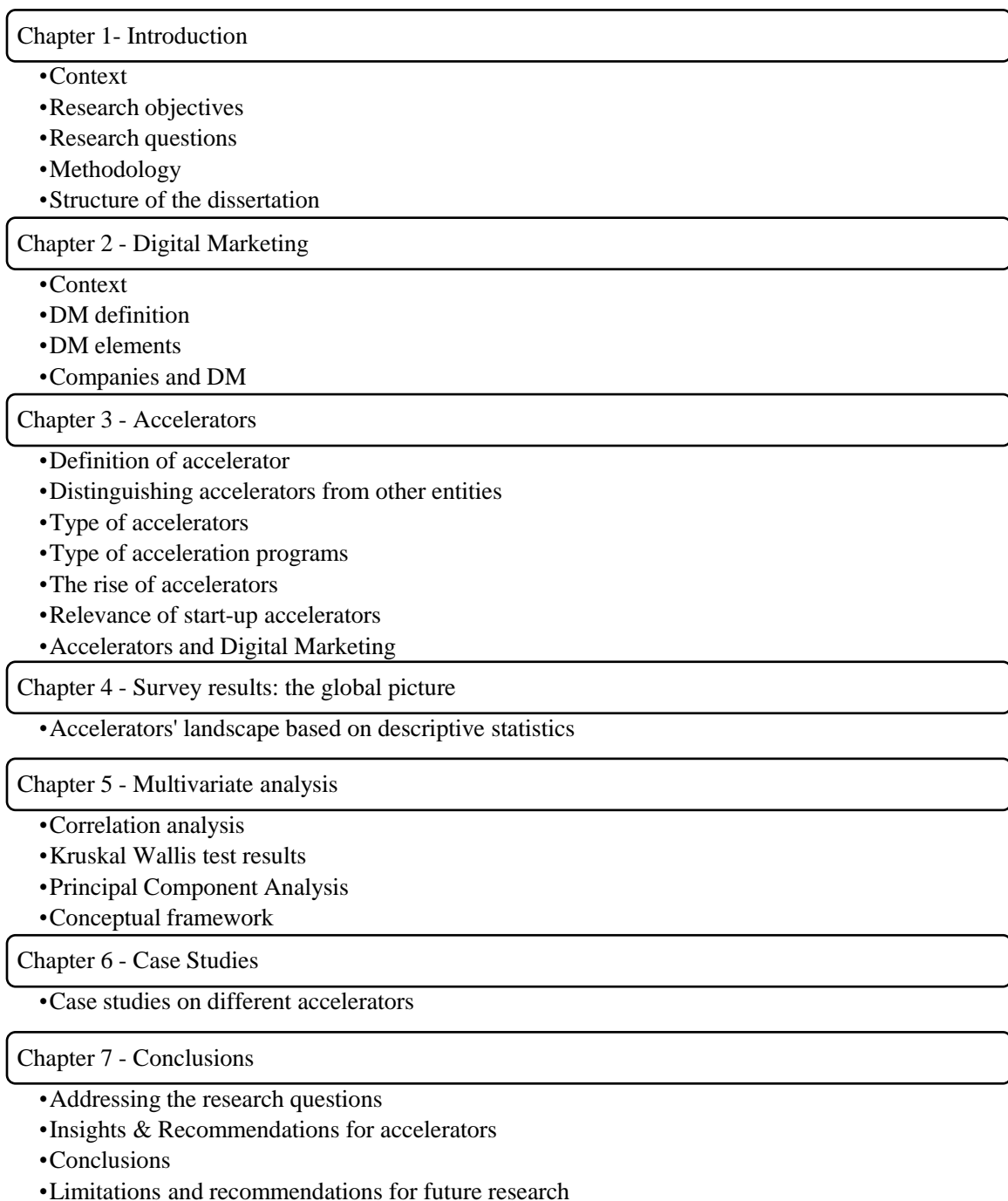


Figure 1.5 - Structure of the dissertation.

Chapter 2

Digital Marketing

The present chapter gives an introduction to the concept of DM, as well as shows which are the channels and strategies being used by companies nowadays. Some examples of company's strategies regarding Digital Marketing will also be included throughout this chapter.

2.1 Context

2.1.1 The Internet

The Internet is changing the way how businesses operate, and allowing the collaboration between platforms makes everyone stay connected and share great amounts of information (Brynjolfsson et al., 2008). According to Statista (2017a), the number of Internet users continues to increase year after year, due to the easiness in accessing computers, the modernization of countries and the high rate of smartphones usage. As it is presented in Figure 2.1, in 2005 there was approximately 1 billion users, increasing to more than 2 billion in 2010 and more than 3 billion in 2015.

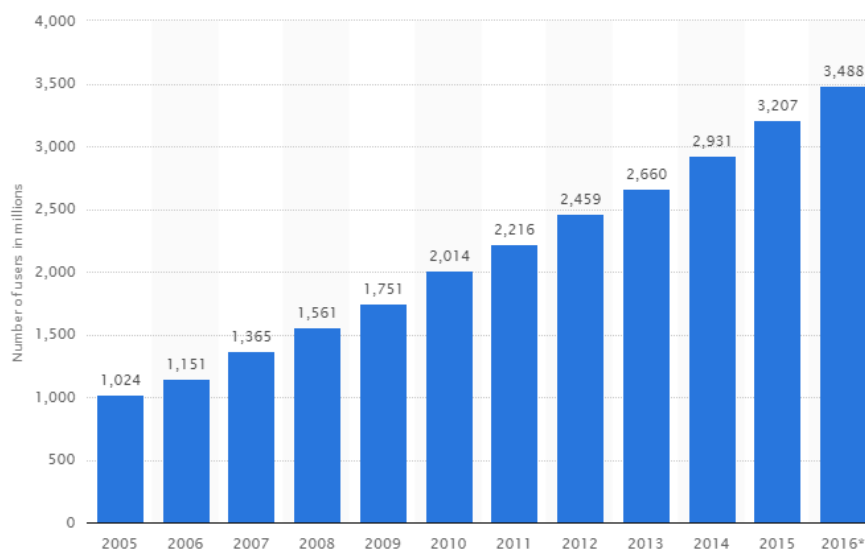


Figure 2.1 - Internet users from 2005-2016, in millions (Statista, 2017a).

Also according to Statista (2017b), internet users are not distributed equally around the globe. Asia is by far the region with more Internet users (1.9 billion approximately), followed by Europe (637 million), Latin America/Caribbean (398 million) and North America (320 million).

2.1.2 The Web

While the internet is all about connecting computers, the Web focuses on connecting people by allowing the user to access the content available or by contributing with his own (Computer History Museum, 2017).

According to Aghaei (2012), the Web firstly appeared in 1989, by Tim Burners-Lee and it has surprisingly evolved at a fast pace in the last two decades: it started with the Web 1.0 (the web of cognition), being outpaced by Web 2.0 (web of communication) and Web 3.0 (web of co-operation). The next generation will be Web 4.0 (web of integration) and some enthusiasts are already releasing some rumours regarding what Web 5.0 will be (sensory emotive Web).

Web 1.0

Web is one of the most important and crucial information sources in one's daily life (Zhao et al., 2015). When it appeared, it aimed to present to its users a set of diverse information, which they could easily access through hypermedia links (Hiremath and Kenchakkanavar, 2016).

Web 1.0 was the first web generation (1996-2005), known as the read-only web (Patel, 2013; Hiremath and Kenchakkanavar, 2016). This name was given since only a small number of writers (called web-content managers) were allowed to have a web page so that readers across the world could have access to trustworthy information available for anybody at any given time (Hiremath and Kenchakkanavar, 2016).

Web 2.0

While Web 1.0 involved a website creator and an observer of the content provided in that static website, Web 2.0 appeared to incorporate the initial idea of Tim Burners-Lee of a community-centred approach, and is also known as the read-write web, knowledge web, people-centric web or participative web (Taiminen, 2016; Hiremath and Kenchakkanavar, 2016).

There is not a unique definition of Web 2.0 (Connolly et al., 2011). Constantinides and Fountain (2008) understands Web 2.0 as “an umbrella term for the collection of web applications” that enables an online two-way communication. Tim O’Reilly (2006), who is cross-referenced multiple times when one talks about Web 2.0, tried defining it briefly, as *“the business revolution in the computer industry caused by the move to the internet as platform”*.

In *What is web 2.0? Ideas, technologies and implications for education*, Anderson (2007) points out the first time the term Web 2.0 was used, in a 2004’s conference by Dale Dougherty. In this event, he also enhanced that “the Web was more important than ever, with exciting new applications and sites popping up with surprising regularity”.

The arrival of Web 2.0 changed tremendously the behaviour of consumers. Not only the way how people communicate or socialize was transformed, but also the power to make a purchase was transferred from producers or vendors towards customers, by doing just one click (Constantinides and Fountain, 2008).

Web 2.0 empowers users to not only create content, but also to be active participants (Taiminen, 2016). However, it is important to note that some of the tools linked to Web 2.0 are an extent of already existing Web 1.0 tools (Anderson, 2007). That is the reason why Tim Burners-Lee points out that Web 2.0 is only a more deeper utilization of Web 1.0 (Anderson, 2007). Furthermore, Laningham (2006) in a podcast given in 2006 added:

“Web 1.0 was all about connecting people. It was an interactive space, and I think Web 2.0 is of course a piece of jargon, nobody even knows what it means. If Web 2.0 for you is blogs and wikis, then that is people to people. But that was what the Web was supposed to be all along.”

As Laningham (2006) stated, blogs and wikis are some of Web 2.0 tools. Barnes et al. (2012) added other support collaborative tools such as: social networking sites, podcasts, instant messaging, discussion forums, audio and video conferencing, group diaries, hosted virtual offices, collaborative whiteboards and presentation systems.

Web 2.0 tools	Presentation systems
	Blogs
	Wikis
	Social networking sites
	Podcasts
	Instant messaging
	Discussion forums
	Audio, video conferencing
	Group diaries and address books
	Hosted virtual offices
	Collaborative whiteboards

Figure 2.2 - Web 2.0 tools.

Web 3.0

Web 2.0 paved the way to the third web generation, which uses data and converts it into meaningful information (Patel, 2013). Tim Berners Lee, the inventor of WWW, came up with the concept of Semantic Web in 1999, nowadays known as Web 3.0 thanks to John Markoff in 2006 (Hiremath and Kenchakkanavar, 2016).

According to Patel (2013), Web 3.0 aims to be a read write intelligent web. It provides machine-readable contents on the web so that machines can execute the process of decision making for humans (Aghaei, 2012). Benito-Osorio et al. (2013) agrees by saying Web 3.0 combines the human and artificial intelligence to provide relevant and accessible information.

Web 4.0

Even though we are still in the Web 3.0 era, enthusiasts are already talking about their expectations for Web 4.0. One of the first web 4.0 consumer electronics created by two Amazon entrepreneurs made it possible for Amazon's first time visitors to have a personal advisor, providing relevant content to them.

Having said so, Web 4.0 can also be called symbiotic web, making it easier to humans and machines to interact due to powerful interfaces that allow machines to read content faster and decide what to load first (Aghaei, 2012).

Going even further, Benito-Osorio et al. (2013) says Web 4.0 will be “based on wireless communication (mobile devices or computers) connecting people and objects whenever and wherever in the physical or virtual world in real time”.

Below in Table 2.1, are presented the main differences between Web 1.0, 2.0 and 3.0. However, it is relevant to enhance the most distinguishing feature: the level of information sharing and user interaction. The web started by allowing only a specific user to publish information for others to consume (web 1.0), evolving to a web that allowed people all over the world to interact with each other and share information (web 2.0), eventually paving the path to the appearance of web 3.0 and its depth use of artificial intelligence to help web users to make appropriate and faster decisions.

Table 2.1 - Differences between Web 1.0, Web 2.0 and Web 3.0 (O'Reilly, 2007; Aghaei, 2012; Patel, 2013; Hiremath and Kenchakkanavar, 2016;).

Web 1.0	Web 2.0	Web 3.0
1996	2006	2016
Read only web	Read-write web	Read, write and executable web (portable personal web)
Information sharing	Interaction	Immersion, understanding self
Millions of users	Billions of users	Trillions of users
Connect information	Connect people	Connect knowledge
Hypertext (basic)	Community web (for people: apps/sites)	Semantic web (for machines)
One way communicating	Bi-directional	Multi user virtual environment
Companies publish content that people consume	People publish content that other people consume; companies build platforms that let people publish content for other people (e.g.: Flickr, YouTube, Wikipedia)	People build applications that people can interact with companies, build platforms that let people publish services by leveraging the associations between people or special content (e.g.: Facebook, LinkedIn)
Content Management System	Wikis, Wikipedia	Semantic Wikis

2.2 Understanding Digital Marketing: definition and evolution

People reaching out to others through all means and media available has been going on as long as humans exist and in many different forms (Ryan and Jones, 2009). In the 20th century, this interaction started changing with the appearance of the radio and the television. But the biggest change of them all came along with the Internet and the WWW: the era of digital marketing had began (Ryan and Jones, 2009). Twenty years later, corporations such as Google, Facebook or Amazon are some of the economy key players.

However, the appearance of DM does not mean that the previous forms of marketing were outraised (e.g. ads for TV networks or radio stations). Simply put, it just helped corporations of all sizes (small, medium and large) finding new ways of establishing a strong “digital relationship” between the customer and the brand ((Ryan and Jones, 2009; BCG, 2012; Phillips, 2015; Kannan and Li, 2017).

This explains why the first attempts on defining DM were actually based in the conventional marketing (Piñeiro-Otero and Martínez-Rolán, 2016). However, DM involves new strategies and tools that are impossible of using in the offline world, and that help acquiring customers, building customer preferences, promoting brands, retaining customers and increasing sales (Piñeiro-Otero and Martínez-Rolán, 2016; Financial Times, 2017).

Being called also Internet Marketing, Electronic Marketing or E-Marketing, DM does not have a unified definition still, but it always involves applying technologies to link the market to online channels such as web, e-mail, databases, mobile/wireless and digital TV (Chaffey, 2006). While Wymbs (2011) defines DM 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”, BCG (2012) reinforces this definition by adding that DM is the use of “digital channels to reach consumers and build stronger relations”.

Thus, DM includes not only channels that require using Internet, but also mobile phones (SMS and MMS), social media marketing, display advertising, search engine marketing, and any other form of digital media (Financial Times Lexicon, 2017).

Ultimately, it is important to highlight that DM is not as different from traditional marketing (Ryan and Jones, 2009). It still is about connecting people (marketers) to other people (consumers) and drive it to sales. The only difference between them two relies in the fact that the first one tries to understand how people are using technology and which are the different possibilities to engage with them (Ryan and Jones, 2009).

2.3 Digital Marketing elements

With the easiness to access Internet, we all have been assisting digital entering in one's life deeply. Either at home or at work, everyone uses Internet to stay connected, locate stores, research products or compare prices (BCG, 2012). The increased online time spent, referred by Taiminen and Karjaluo (2015), is highlighted by Ofcom's research (2015) which shows that time spent online doubled in only a decade.

The boost of internet users also increases the amount of information available that can be overwhelming due to the existence of a multitude of digital channels, such as "corporate websites, online communities, Internet search-and-display advertising, mobile technologies, online videos, and social media such as Facebook and Twitter" (BCG, 2012).

Literature refers to three types of media which describe marketing initiatives: paid, earned and owned media.

- Owned media (e.g. websites, social networks, mobile apps which belong to the company) is the main focus of a company's DM strategy;
- Earned media (e.g. SEO, mentions, shares, content about the company developed by users, for free) focus on word of mouth (WOM) and is essential for the company's reputation once they do not control any mentions, shares, reposts, reviews or recommendations people do on social platforms;
- Paid media (e.g. social media ads, display ads, affiliate marketing) is a space or content which the company had to pay for in order to increase the reach of messages/initiatives in owned or earned media.

The main elements used to market products or services online will be briefly described in this chapter.

2.3.1 Websites

Having a website has become almost imperative for corporates to be able to establish a connection with the consumer (Kiang et al., 2000). While building up a website, its effectiveness means aligning the organization's business goals with the needs of their target market (Ryan and Jones, 2009). This means that the consumer should not only find the website easily, but he should also become more than just an occasional visitor.

According to Ryan and Jones (2009), when building a website there are five key stages that will help that project to become more effective, resumed in Figure 2.3.

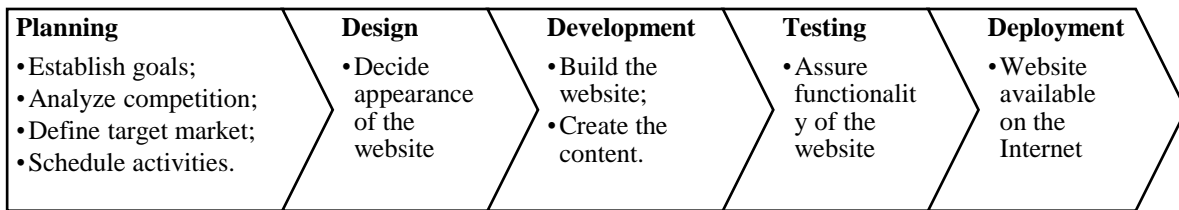


Figure 2.3 - Stages of building an effective website (Ryan and Jones, 2009).

After following these steps and having the website working and available to Internet users, companies should bear in mind the importance of sharing content that transmits the organization's mission and values.

Content is so powerful it can help companies overcome controversies and accusations. This was the case of Nestlé, who fought accusations by showing transparency and openness to dialogue in their website. Moreover, adopting bright colours and strong imagery helped them regain users' trust, and thus Nestlé was nominated the best corporate online communicator in the world in 2016 (Drury, 2017).

2.3.2 Web positioning

The saying "if a company cannot be found in Google, it does not exist" typifies the common thoughts of consumers nowadays (Taiminen and Karjaluo, 2015). Search Engines (or browsers) such as Google allow users to access easily quality content whenever they need it (Ryan and Jones, 2009). According to these authors, the mission of search engines is to provide users a good search experience, which enables the search engine to have a good reputation, and thus increase the number of users. Nowadays, Google is the most used search engine in the world, having a market share of 89,06% last January 2017, as observed in Figure 2.4 (Statista, 2017c).

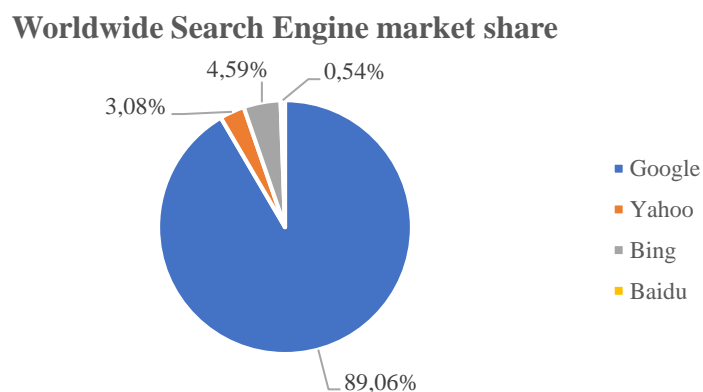


Figure 2.4 - Worldwide market share of the leading search engines (Statista, 2017c).

Search engines offer users a list of website results according to the keywords used in their searches, so it is easy to imagine that the competition is very tight for a company to have their site on top of the results page, especially due to the number of websites that exist nowadays and the increase number of internet users (Ryan and Jones, 2009). Techniques such as Search Engine Marketing (SEM) and methods such as Search Engine Optimization (SEO) help better position a website in the internet and are described below.

Search Engine Marketing (SEM)

SEM is “a publicity system that offers users ads that are related to their search terms” (Piñeiro-Otero and Martínez-Rolán, 2016). Google AdWords is often used to apply these SEM techniques. These ads must be paid, addressing to the relevance of being in touch with the current keywords that best describe ones business. Google Trends might give a hand on finding the most popular search terms that users are using.

Keywords are extremely important when talking about SEM because they connect words and phrases to websites and also compare them. If a company chooses the wrong keywords, they will lose money by having users clicking in their website who are not a part of their target audience and who will not purchase (Piñeiro-Otero and Martínez-Rolán, 2016).

The latest authors provided a set of tips in order to develop a strong SEM campaign and thus increase the chances of an ad to come up in the first page of the search engine’s results:

- Have the same keywords in the ad and in the destination site;
- Pay more per word in an ad will help it to appear in the first page of the results page;
- More clicks in the ad will contribute to a higher position in the ranking criteria.

According to Page (2015), some of the methods of SEM are the following:

- ***Search Engine Optimization (SEO)***

The main purpose of SEO is to help positioning a “website on the first page of a search engine results page” (Kaur and Kaur, 2017). Different search engines use different ranking criteria to do so, but according to Ledford (2008) it is frequent the following elements to have a considerable weight in the before mentioned ranking:

- **Location** of the keywords and phrases on the destination page;
- **Frequency** that the search term appears in the destination page;
- Number of **links** that come into the site, lead out of the site and are within the site;
- Number of **click-through** of the destination page versus the number of click-through of other pages.

Just as mentioned in the SEM section, keywords are one of the pillars of a SEO strategy and, according to Piñeiro-Otero and Martínez-Rolán (2016), to be able to improve SEO positioning, keywords should be included in: title tag, meta tags¹, links and content, being the last one been given extreme importance by Google lately.

In Figure 2.5, a simple research for the keyword “digital marketing” in the search engine Google shows the two types of results that appear nowadays. The first one is a direct result of SEM, and the second one of SEO.

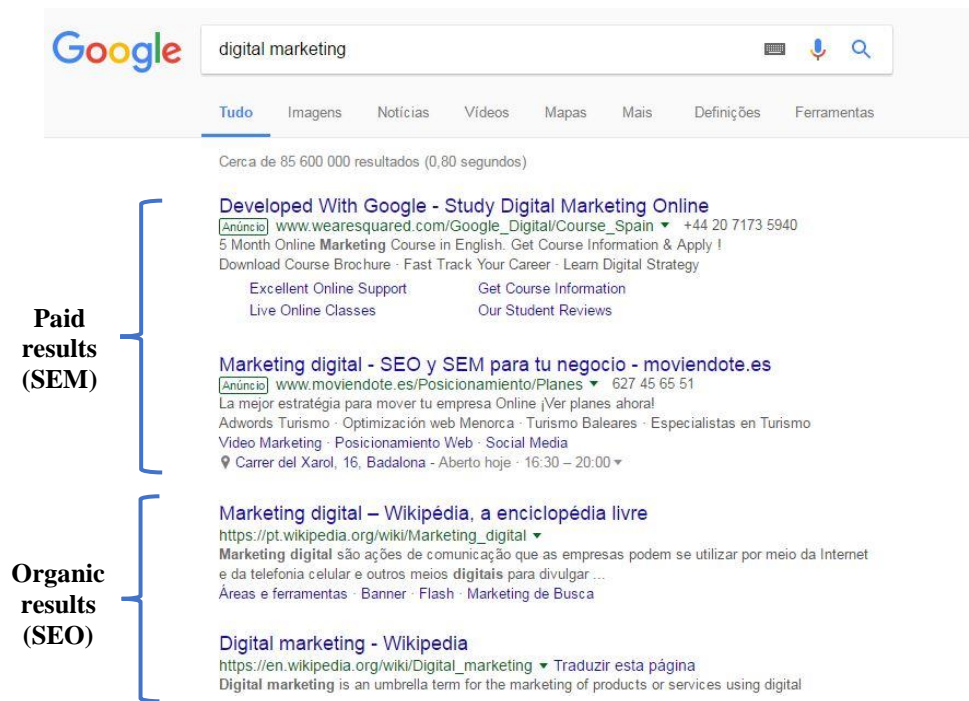


Figure 2.5 - Results page on Google for the term “digital marketing”.

Even though both types of positioning in the web are based on **search engines** and **keywords**, their key differences were summarized by Piñeiro-Otero and Martínez-Rolán (2016) in their article *Understanding Digital Marketing: Basics and Actions*, summarized in Table 2.2.

Table 2.2 - Main differences between SEO and SEM.

SEO	SEM
Mid- and long-term results.	Immediate results.
Results are sustained for longer.	At the end of the campaign, the results are erased.
Organic results.	Paid results.
Results are always shown at the centre of the screen.	Results appear mainly on the screen top or sides.

¹ Code that describes some aspects of the contents of a Web page. Most important meta tags for search engines are: keywords meta tag and description meta tag.

- ***Pay-per-Click (PPC) advertising***

This type of paid advertising appears usually alongside, above and occasionally below the organic listings on the search engine result pages with the label “Ad” to make clear to users that it is not part of the organic results of the search engine (Ryan and Jones, 2009).

- ***Contextual advertising***

This type of targeted advertising is one of the web positioning techniques with more potential to create strong and compelling ads, because it has in consideration certain user information to provide the most adequate ads. By using banners, pop-ups or text, the user is exposed to ads that he was already interested when he did a previous research. The system knows about it based on the research terms users used recently.

- ***Data asset optimization (DAO)***

DAO is considered to be an extension of SEO, aiming to include in search engines all searchable assets of a company (office documents, PDF, audio, video, and so on) that can be keyword optimized and promoted online (Information Resources Management Association, 2015).

- ***Paid inclusion***

This type of advertising is used when a company pays to the search engine a certain fee so that the company’s site can appear in the results page when typed specific search terms.

2.3.3 E-Mail Marketing

The first e-mail was sent in 1971 and already then had some features that remain the same today, such as the fields “To”, “Subject” and “Message” (Ghouse and Khan, 2016). The number of people using e-mail continued growing since then, and nowadays about 225.3 billion e-mails are sent per day (Statista, 2017d).

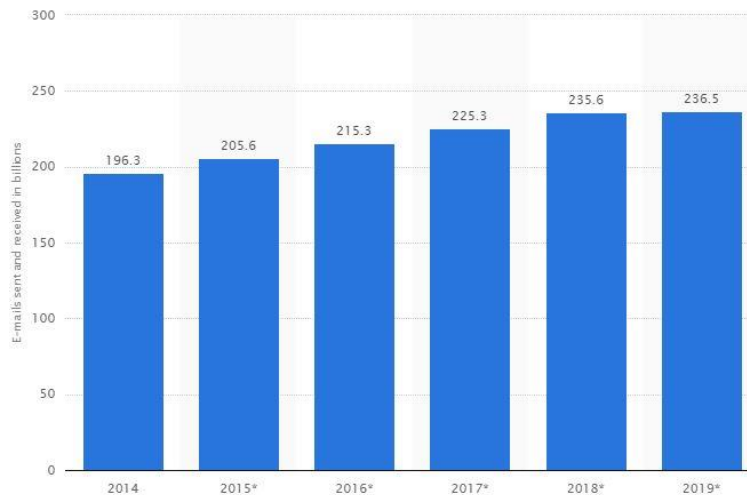


Figure 2.6 - Number of e-mails sent worldwide from 2014 to 2019 (Statista, 2017d).

E-mail marketing is considered by many the most powerful tool to communicate and send advertisements easily either at a personal or professional level (Piñeiro-Otero and Martínez-Rolán, 2016). It consists in sending an e-mail with a commercial text or a multimedia message to a customer list and it usually contains a ‘call to action’ (Ryan and Jones, 2009).

According to Piñeiro-Otero and Martínez-Rolán (2016), the main goals of e-mail marketing can vary from business to business, but overall can be summarized into: driving traffic into the website; promoting a special action such as promotion of new services or special discounts; cost savings; and brand popularity and image.

“E-mail marketing has been called the original social networking tool and I could not agree more. If you think about social networks in general, email plays a large role in them.”

Simms Jenkins, author of *The Truth about Email Marketing*

A research conducted by McKinsey (2014) enlightens that, regarding acquisition of customers, e-mail was 40% more effective than Facebook and Twitter combined. Two years later, Piñeiro-Otero and Martínez-Rolán (2016) supported this research by stating that e-mail is still the “first Internet service ahead of social media”.

Ellis-Chadwick and Doherty (2012) both agree that E-mail marketing is a powerful and cheap tool for companies enhancing long-term relationships with customers. Moreover, E-mail marketing has the

advantage of allowing to send targeted information in different formats, such as text, static or moving images, sound or hyperlinks.

However, e-mail marketing also has its disadvantages. It can be easily identified as spam by antispam filters that help distinguishing e-mail marketing from other e-mails, leading e-mail marketing directly to the spam box (Piñeiro-Otero and Martínez-Rolán, 2016). This is where all the messages one did not request for or that are from an unknown sender go to. Thus, it is of extreme importance to have the right e-mail marketing approach (Ryan and Jones, 2009).

To help measuring the success of the E-mail marketing strategy, Key Performance Indicators (KPIs) are vital and can help to adjust ones strategy to the desired audience. Ryan and Jones (2009) enumerate some of the metrics more used to measure the performance of E-mail marketing campaigns in Table 2.3.

Table 2.3 - Common E-mail Key Performance Indicators (KPIs).

E-mail common KPIs
E-mail open rate (approximately how many people opened the e-mail);
When people opened the e-mail;
Click-through rate (which links inside the e-mail people clicked on);
Click-to-open rate (percentage of people who opened the e-mail and afterwards opened the website);
E-mails never opened;
Types of e-mails with the best conversion rates (i.e., people who open the e-mail, go to the website and purchase or realizes the action that the company wanted them to do);
E-mails that regularly bounce;
Number of unsubscribed people;
Which e-mail clients or partners blocked the marketing e-mails;
How frequently a series of e-mails is opened by a particular subscriber.

According to Ghouse and Khan (2016), marketing e-mails can be of three types:

- ***E-mails Newsletters***

These type of marketing e-mails are the ones who users decide to subscribe, in order to receive updates on new products and services of the company. Newsletters help engaging users and building brand loyalty.

- ***Transactional E-mails***

These automated e-mails, such as welcome e-mails or order confirmations, are a result of a user's action and helps him to not to worry regarding the transaction he just did. These e-mails can also include some promotional message.

- ***Direct e-mails***

Direct e-mails are sent directly to prospective users who have not registered or signed up to receive these e-mails. Usually a promotional message is attached.

2.3.4 Mobile Marketing

Mobile marketing involves all forms of using mobiles, smartphones, tablets or desktops in a marketing strategy, such as advertisement in applications, content optimization for mobile devices, SMS, MMS, QR codes or Bluetooth (Watson et al., 2013; Ahmeti and others, 2015). GPS is also a powerful tool when doing mobile marketing, by allowing organisations to send special offers or reminders to the user according to his/her location (Kotler and Keller, 2012).

Ryan and Jones (2009) were right when said that mobile marketing was soon going to be much more than just SMS messaging. The increased capabilities of smartphones along with the wider availability of 4G and Wi-Fi and the future launch of 5G are giving more possibilities to reach users (Watson et al., 2013; Mobile World, 2017).

Furthermore, according to *The Global Mobile Report* (comSCORE, 2016), besides 9 out of 10 Millennials have smartphones and use them daily, Millennials also spend 50% to 100% more time on their mobiles than on desktop today, especially when it comes to categories such as Maps, Weather, Photos and Social. On a side note, even traditional display ads (banners) are already less used in mobile than in desktops, because users may click on them by accident, inducing the company to consider them as prospects when they are not (Zenith The ROI Agency, 2016).

2.3.5 Affiliate Marketing

Affiliate marketing is the process of promoting a product or service and gaining a certain amount of commission by doing so. Usually it involves three parties: the advertiser, the affiliate and the customer. The advertiser is a company who already has a product or service developed and desires to promote it. The affiliate is a company or an individual who owns a website who receives a lot of traffic, and so promotes the advertiser's products or services through ads or links in their own website. The customer is the person who visits the affiliate's website and if he/she clicks in some ad or link connected to the advertiser is

immediately pushed into the advertiser's website (Ryan and Jones, 2009; Prabhu and Satpathy, 2015; Sharma, 2015).

Affiliate marketing programs have been having a lot of traction, also by large companies such as Amazon, eBay and Walmart. The reason why is that so is because advertisers only pay for the last click on the ad or link, or for the most recent click that creates an action (Ryan and Jones, 2009; Snyder and Kanich, 2015).

2.3.6 Social Media Marketing

The growth of the Internet has empowered the use of online social media in a way that they became one of the most important channels to communicate either you are a company or an individual (Husain et al., 2016). Nowadays, approximately 2.51 billion people worldwide use social media channels (Statista, 2017e).

Thus, the appearance of social media marketing (SMM) was natural, and it is defined by Sharma (2015) as being the “process of boosting website traffic, or brand awareness, through the use of social media networking sites”. Kaplan and Haenlein (2010) explored the plethora of different social media types, namely: collaborative projects (e.g. Wikipedia), blogs, user-generated content communities (e.g. YouTube), social networking sites (e.g. Facebook, Twitter), virtual games world (e.g. World of Warcraft) and virtual social worlds (e.g. Second Life). Later on, Kotler and Keller (2012) enlighten the three most used social media platforms: online communities and forums, blogs and social networks, described below.

Having so many social media channels to opt by may lead businesses choosing inadequately between them. Actually, one study conducted by Social Media Examiner back in 2014 found that 97% of marketers participate in social media, but 85% of them cannot assure what social media tools are the best to use (Social Media Examiner, 2014).

Online Communities and Forums

Forums and online community are considered to be the very first form of social media, once they are around since the Internet appeared as well. They can be created either by people who do not hold any specific commercial interest or by companies. In both cases it allows users to participate in open discussions by posts or instant messaging (Kotler and Keller, 2012).

Online Communities and Forums created by companies allow its members to talk about the company's products and brands. This is of extreme value, in the sense that it can provide relevant insights and information about company's customers that usually are hard to get. Furthermore, it also helps building company's online reputation, having the desired target traffic and dealing with negative thinking or comments from customers (Ryan and Jones, 2009; Kotler and Keller, 2012).

- **Quora**

Quora is an online forum which allows people from all over the world to connect and share the information they have with others. It works by placing questions one cares about and then people reply those questions.

- **Reddit**

Reddit is an online platform which connects individuals and different communities. People can share content (stories, links, images...), vote on the quality of the content and also add comments on any post on Reddit. This allows to build honest and valuable conversations, empowering the community to increase their knowledge.

Blogs

The term blog is an acronym of weB LOG, and it allowed anyone who wanted to talk about a particular issue or interest to use it as his/her personal online journal or diary. Bloggers write posts for people who share their interests. These people can then follow their blogs, write posts and comments and share the blog within social media. Online word-of-mouth (WOM) or effective search engine ranking are some of the practices that help a blog reaching a greater audience (Ryan and Jones, 2009; Kotler and Keller, 2012).

According to Ryan and Jones (2009), blogs allow not only to have potentially massive exposure, but also empowers consumer engagement when one provides important and personal insights of work or product experiences.

Social Networks

Social networks are one of the most relevant channels when talking about both business-to-business (B2B) and business-to-consumer (B2C). Social networks allow one individual to connect with the surrounding people.

Basically each person or company has a profile in the social network and then can start sharing posts of all sorts (videos, articles, games, groups, causes ...), depending on the type of social network the individual/company is in.

According to the latest report elaborated by Stelzner (2016), Facebook and YouTube are the most used social networks right now and they are briefly described below, along with other social networks.

- **Facebook**

Facebook's main goal is "to give people the power to share and make the world more open and connected" (Facebook, 2017a). By creating an online profile on Facebook, a user can share with others his/her main interests, motivations and what is happening in his/her life. Facebook allows one to do Publications², share photos or videos, search for other Facebook users, and add Comments³ and Likes⁴ to existing Publications. Each user has a News Feed, which is constantly updating stories from friends, Pages⁵, Groups⁶ and Events⁷, according to the user's personal interests and sharing activity.

From the before-mentioned features, companies use Pages to establish a real connection with their customers. This can be achieved by sharing photos and new updates about the company's products, by creating Events to promote a new product or service, by inviting friends to like the company's Page, or by having an option of "Message" in the Page, which will give the Fans an opportunity to ask questions or give suggestions (Facebook, 2017b).

It is important to bear in mind that the company should not simply create the Page, start publishing content and use Facebook Ads⁸. Using the analytics given by Facebook, it is possible to analyse how many people the Page is reaching, which type of content attracts more users, or how many people the actions⁹ are reaching. Knowing these type of details will allow defining and adjusting the Facebook's strategy in order to reach company's goals (Facebook, 2017b).

² Publication is a message shared by the user to his/her network.

³ Comment is an answer a user gives to a Publication, visible to everyone who has access to the Publication.

⁴ Like is an option attached to Publications and Comments, visible to everyone who has access to the Publication.

⁵ Page is a profile for artists, public figures, businesses, brands, organizations or non-profits.

⁶ Group is a private space for small groups (e.g., family, teammates, best friends), where people can post updates, photos or files, only shared with the people who have authorization to see it.

⁷ Event helps people managing invitations, gatherings, sending notifications or reminders to their friends.

⁸ Facebook Ads are paid advertisement that help the company promote its brand, products or services amongst a specific target audience in Facebook.

⁹ Action is an activity that happened as a result of the company's ad.

Other products made available by Facebook are the Messenger, which made it easier to people reach out to each other, by allowing to send private messages and stickers¹⁰, chat as a group, or make free calls.

Mark Zuckerberg (Facebook's CEO and Co-Founder) desire of connecting everyone in the world has led to the launch of Free Basics by Facebook and Facebook Lite. Currently available in Africa, Latin America and Asia, the first one is a free version of Facebook that by having no data charges makes it possible for anyone who find it difficult to pay for Internet to still be able to use Facebook and search for simple services such as health, employment and local information websites. On the other hand, Facebook Lite is an Android's Facebook version which uses less data and "works well across all network conditions" (Facebook, 2017c).

- **Twitter**

Twitter is about giving "everyone the power to create and share ideas and information instantly, without barriers" (Twitter, 2017a). Publishing messages in Twitter is done by Tweets, which are text messages of up to 140 characters that can contain photos, videos or links. In this platform, the user has a personal profile with Tweets, Retweets¹¹ or Followers. Other users can follow him/her, and by doing so they are agreeing on receiving his/her updates. In some cases, a user has to approve the follow request from others. However, it is important to note that just because one user is following another it does not need to be reciprocal (Twitter, 2017b).

Another interesting feature of Twitter is allowing users to search easily for any topic they want by introducing a keyword or by searching for hashtags¹² (Twitter, 2017c).

Regarding companies, they can also have a Twitter account to share information and build a closer relationship with users. Twitter users can choose to follow the company's Twitter page, enabling them of receiving their updates. Moreover, a company can connect their website to their Twitter Page by adding a Twitter button in their website or a "Tweet" button, which allow users to immediately publish content in their Twitter accounts.

Similarly to Facebook, Twitter also has paid advertisement options, namely: Promoted Accounts (accounts that users do not follow yet, but that they may find interesting), Promoted Tweets (paid Tweets that aim to

¹⁰ Sticker is an illustrated character used to share a feeling with a friend.

¹¹ Retweet is a Tweet that a user shares publicly with his/her followers.

¹² A hashtag is used to index keywords or topics on Twitter and it is written with a # symbol.

reach a greater audience) and Promoted Trends (users can pay to be on top of the trending topics, which will appear on the top of the News Feed of Twitter as being “Promoted”) (Twitter, 2017d).

All the statistics of a company’s page can be controlled with Twitter Analytics. This function helps the administrator of the page to understand if the content shared in Twitter is helping the business grow or not (Twitter, 2017e).

- **LinkedIn**

LinkedIn is the “world largest professional networking site” (Chang et al., 2017). After creating a free profile on LinkedIn and fulfilling it with personal information, the user is free to start connecting to other professionals or old colleagues, request Recommendations¹³, receive unlimited InMail¹⁴ messages, search for job opportunities, be a part of Groups¹⁵ and be up to date with the latest news, updates and insights (LinkedIn, 2017a).

Besides the free personal accounts, LinkedIn also provides Premium accounts for business users level (i.e., job seekers, sales and talent professionals, and other professionals), which allow e-mail and search functionality, and expanded profile views (Sinclair and Vogus, 2011).

Companies can create a free Company Page on LinkedIn, where it will be shown details of the company, who are its employees, which are the vacancies open, as well as other content shared by the company. When following a Company’s Page, a user automatically receives its updates (Sinclair and Vogus, 2011).

Posting a job offer on LinkedIn, however, is a paid service that can be worth it to recruiters, by allowing them to easily evaluate the candidate’s profile, his contacts and his Recommendations. Another paid feature of LinkedIn for companies is Sponsored Content. Using it can help not only raising brand awareness and generate quality leads, but also to gain followers (LinkedIn, 2017b).

Similarly to the other social networks, it is possible to add a “Follow” button to the company’s website in order to link it to the LinkedIn’s Company Page LinkedIn. Another option is also to link it to emails, newsletters, blogs and other marketing channels.

¹³ A Recommendation is given when one wants to recognize the work of another user. A user can also ask a recommendation to someone by e-mail or through a message in LinkedIn.

¹⁴ InMail is a direct message one LinkedIn member sends to another he is not connected to. To be able to send an InMail, the LinkedIn member must have a Premium account.

¹⁵ A LinkedIn Group is a place for professionals in the same industry or with similar interests to share content, find answers, post and view jobs, make business contacts, and establish themselves as industry experts.

- **YouTube**

YouTube is “the world’s largest online video community” (Sinclair and Vogus, 2011) that aims “to give everyone a voice and show them the world” (YouTube, 2017). In fact, everyone who has an account can upload a video or follow Channels¹⁶ of other YouTube members (Subscriptions¹⁷), as well as to comment, vote¹⁸, add friends or share videos with Groups¹⁹. When one enters in YouTube, one can simply search in YouTube’s browser by any keyword in order to search for videos about a particular person, subject or category (e.g., comedians, musicians, gurus, etc.) (Sinclair and Vogus, 2011).

Companies can have a free account in YouTube to publish company videos, post solutions to common problems, present company’s products or provide customer support (Sinclair and Vogus, 2011). Once Google acquired YouTube in 2006, it is required to have a Google account to be able to create the YouTube Company’s account.

To link the company’s website to its YouTube channel is possible by using a YouTube button in their website that will guide website visitors to company’s YouTube channel.

YouTube also allows paid advertisement by companies, in the form of video advertising. Each company chooses the YouTube video to advertise, defines the target audience and pays a certain fee. The most common way of advertising videos on YouTube are the pre roll videos (the ads that appear before other videos on YouTube).

- **Instagram**

Instagram is a mobile application that now gathers a community of more than 600 million who share pictures and videos with friends, family and others. To do so, people only need to set an Instagram account and by doing so they have access to an own profile and a news feed. Instagram is all about visual sharing, so when one posts a photo or video on Instagram, it is displayed on his/her profile and everyone who follows that user will be able to see his/her posts. Photos on Instagram usually have a visual impact. Before uploading photos or videos on Instagram, users can apply filters, edit location where the photo was taken, tag people and share those photos or videos within Facebook, Flickr or Twitter. After a post is published, all

¹⁶ A YouTube channel is the profile of the user’s account, in which are shown the user’s account name, a brief description, the user’s uploaded videos, the user’s friends and other user information.

¹⁷ When subscribing a channel, the user can receive notifications when the channel subscribed has a new video uploaded.

¹⁸ It is possible to vote positively or negatively in user’s comments.

¹⁹ A YouTube Group is a collection of up to 200 channels, videos, playlists or assets which users can put together from all video contents.

interactions such as following users, being followed by users, likes, add a comment or sharing it via direct message are available on Instagram, just as they are on Facebook or Twitter. An Instagram user can even save photos he/she likes on Instagram (only visible to the user) (Instagram, 2017a).

A more recent Instagram feature that went viral is Instagram Stories. This is a secondary feed on top of the main feed that shows all user's story(ies) published within the last 24 hours. A story can be personalized by adding filters or Stickers. Some of the Stickers are even personalized according to the day of the week (Instagram, 2017b).

Instagram is used by over 5 million companies around the world to give their clients relevant and inspiring content. Thus, having a business Instagram account helps increasing brand awareness, provide information about the product to new and old clients and increase sales (Instagram, 2017c).

A business profile on Instagram allows to add contact information, industry information and business address, making it easier for Instagram users to identify the profile as being a business one. A business profile on Instagram also allows to view follower's insights and promote posts (which can be photos, videos, sequences or stories that appear as being "Sponsored"). Ads on Instagram allow reaching to a target audience that was hard to get otherwise by segmenting according to location, age, gender, interests, behaviours or audience (Instagram, 2017b).

- **Snapchat**

Snapchat is a messaging and social networking application, only available for iOS and Android. A user chats with their friends by sending those photos or short videos of up to 10 seconds. These photos or videos disappear after the time pre-defined by the user who sent it. If a user desires to view that "snap" again, it only has one chance to review it per day. Nowadays users can also send text Chats to one another. Snapchat was the first social application to introduce Stories (Instagram and Facebook imitate it), which are available 24 hours before they disappear (Lifewire, 2017).

Other features such as Memories²⁰, Filters²¹, Geofilters²², Lenses²³, Stickers, Discover²⁴, Snapcash²⁵, Spectacles²⁶ or Shazam²⁷ are a source of innovation for Snapchat, helping it to stay in the competition along with the other social networks (Snapchat, 2017a).

Snapchat is mostly used by people between 18-34 years old, so it can be vital for companies to use it as part of its marketing strategy (Social Media Examiner, 2015). Companies can use Snapchat by: providing access to their events on live; deliver private content; offer contests, perks or promotions; take people behind the curtain; or partner with influencers. Most recently, Snapchat has allowed advertisement in their platform. Some of their products are: Snap Ads, Sponsored Geofilters, and Sponsored Lenses (Snapchat, 2017b).

- **Slack**

Slack is a digital workspace that helps companies getting projects done by allowing to: define teams, have online workspaces, create channels for different projects, send direct messages to other team mates, search for items, projects or ideas, and manage message's notifications.

2.4 Companies and Digital Marketing

2.4.1 Benefits of a Digital Marketing strategy

Having a DM strategy is not only an option nowadays, but a necessity. If a company does not have one, it will miss business opportunities, make uninformed decisions and loose chances of connect with customers (Ryan and Jones, 2009; Piñeiro-Otero and Martínez-Rolán, 2016). Even worse, they will be outpaced fearlessly by the competition.

Furthermore, Piñeiro-Otero and Martínez-Rolán (2016) reinforce that the development of a Digital Marketing strategy empowers not only brand awareness, dissemination of relevant advertising and provide

²⁰ Memories are a searchable and shareable archive of snaps that a user can access within the app.

²¹ A Filter can be anything added to Snaps such as: colored Filters, the current time, local weather, speed overlays or Geofilters.

²² A Geofilter is a filter that shows where a user is, if the location services are turned on.

²³ Lenses are Snapchat's real-time special effects and sounds.

²⁴ Discover tab on Snapchat gives users the breaking news on games, celebrities, and so on.

²⁵ Snapcash is a money transfer tool on Snapchat.

²⁶ Spectacles are sunglasses that take photos into Snapchat, keeping those Snaps in Memories.

²⁷ Shazam is a company that identifies the media playing around. In Snapchat, if Shazam recognizes a song, a pop-up will appear.

visual communication, but it also is a user-friendly way of improving user's brand experience and it allows to measure output.

Nowadays, people go online to spend their free time or to find new products and compare them (Sharma, 2015). However, not everyone who will enter in one's website has the intention to buy. That is the reason why, to succeed in DM, is necessary to have a deep understanding of the target audience, of how customers are using digital technology (time spent, channels used...) and of how a business can use that technology to build long and everlasting relationships with them.

This can be done through the data collected in any kind of contact between a customer and a company. When this happens, it is easy for the company to analyze different products or services, as well as to segment customers, profile them and send them personalized offers based on their past habits (Sharma, 2015).

This leads to the importance of having a DM strategy which will ensure that all DM activities are going as planned, that they are aligned with company's DM objectives and that the right people is being reached through the right channels.

2.4.2 Digital Marketing plan

A DM plan should be developed in order to assure company's goals are possible to achieve through the strategy and channels chosen.

Thus, a DM plan is a strategic document that takes into consideration the current state of the company and describes its short and long term goals, its mission, responsibilities, time frames, strategy selection, digital channels, and control tools to help monitoring digital channels (Piñeiro-Otero and Martínez-Rolán, 2016).

A DM plan will help not only to identify emergent opportunities and threats and define company's competitive advantage, but also will improve communication throughout all departments and individuals by involving all management levels in the planning process in order to distribute adequately resources and to have a coherent approach flowing throughout all the organization (Ryan and Jones, 2009).

Piñeiro-Otero and Martínez-Rolán (2016) developed a framework (presented in Figure 2.7) based on PR Smith SOSTAC back in the 1990s (Situation, Objectives, Strategy, Tactics, Action, Control), which also highlights the main topics of a DM plan referred by Baker (2003), Chaffey (2006), Kotler and Keller (2012) and Ryan (2016).

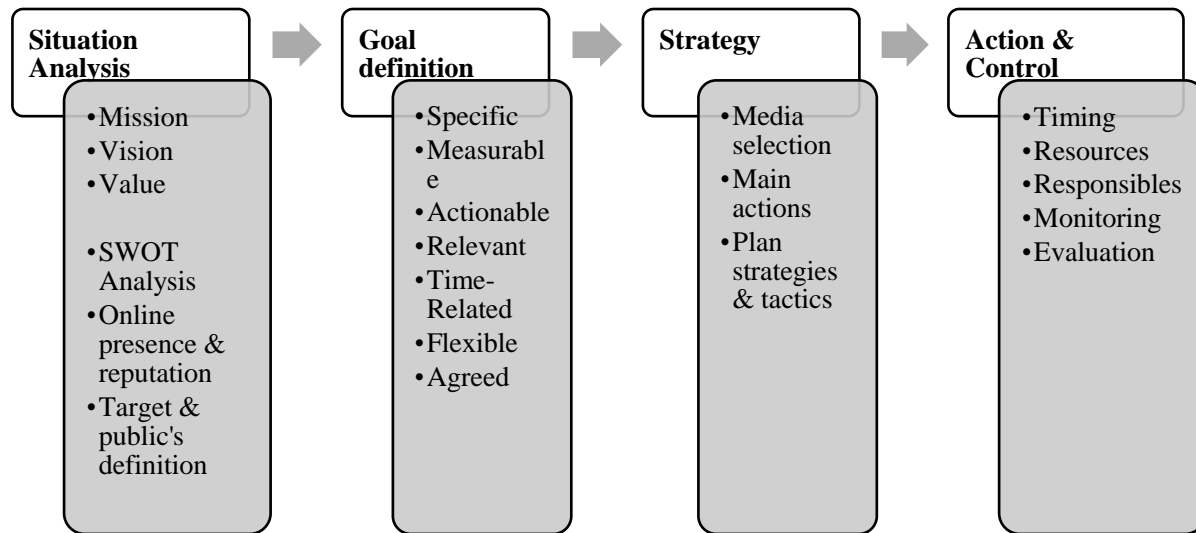


Figure 2.7 - Marketing Plan strategy (Piñeiro-Otero and Martínez-Rolán, 2016).

- **Situation Analysis**

Baker (2003) and Chaffey (2006) describe situation analysis as auditing company's marketing activities and the external factors that will influence company's activity.

An overview of company's mission (business essence), company's vision (future goals) and the values that guide company's culture should be done, followed by an overview of company's resources and activity in the marketplace (Chaffey, 2006; Piñeiro-Otero and Martínez-Rolán, 2016).

Conducting a SWOT and PESTEL analyses gives a hand on analyzing company's micro (e.g. analyzing customer demand, competitor activity, or marketplace structure) and macro environment (e.g. analyzing economic development, government regulation, ...).

- **Goal setting**

"If you don't know where you're going, any road will take you there"

Ted Levitt
in *Marketing Strategy and Management* by Michael Baker

Goal setting is one of the most important phases in the DM plan, because it establishes the direction of the DM strategy (Baker, 2003). It will set the standards of where the company wants to be in the future, at the

same time it will allow to make adjustments to the marketing strategy, if necessary (Chaffey, 2006; Piñeiro-Otero and Martínez-Rolán, 2016).

Chaffey and Smith (2008) came up with 5 objectives to help defining the DM plan. Choosing one (or more) of the following 5Ss will help the company to define what they want, and thus the direction of its DM strategy:

- **Sell:** grow sales (e.g. achieve 10% of sales online in market);
- **Serve:** add value (e.g. increase interaction with different content on site);
- **Speak:** get closer to customers (e.g. survey 1000 customers online each month);
- **Save:** save costs (e.g. generate 10% more sales for same communications budget);
- **Sizzle:** extend the brand online (e.g. rework online value proposition messaging).

SMART criteria (Specific, Measurable, Actionable, Relevant, Time-related) is also commonly used to define DM objectives, but it is up to the company to decide which criteria to choose. Usually, goals are divided as: scope goals, activity goals, conversion goals and loyalty goals (Chaffey, 2006; Piñeiro-Otero and Martínez-Rolán, 2016).

Defining goals depend on the budget available to invest in DM. One of BCG's reports (2012) found that the degree of digital expertise in DM influences how much companies invest in DM channels. Companies at a more digitally evolved stage spend more than 20% of their marketing budget on digital channels, tools, brand influencers and outside experts in DM, while companies at the experimenting stage allocate less than 10% of their efforts to develop marketing campaigns, usually spending it on data mining and on technology to monitor customer's activity. Companies in a building stage invest more than 10% of their annual marketing budget on trying to engage with brand influencers, launch their own online communities and track consumer's activity.

- **Strategy**

A strategy is a set of planned activities that allow the company to achieve the previous goals (Chaffey, 2006; BCG, 2012; Piñeiro-Otero and Martínez-Rolán, 2016). Segmentation, targeting, differentiation and positioning are, according to Chaffey (2006), key for effectiveness in DM.

It is important to stand out that there is no one-size-fits-all strategy when it comes to DM, because all companies have different objectives, organizational structure, resources or budget available (Chaffey, 2006;

BCG, 2012). So, it is a common practice to test a certain strategy and to learn from its outcomes: if it works, keep using that strategy; if it does not work, learn from it and evolve that strategy (Yasmin et al., 2015).

In terms of tactics, several can be undertaken starting from SEO, Google Adwords, social media marketing or e-mail marketing (PwC, 2013).

Other tactics can focus on retargeting. Piñeiro-Otero and Martínez-Rolán (2016) highlight the importance of clarifying which are the target audiences, so that the right message is delivered to the right people. Retargeting is the art of providing personalized experiences to the customers by using marketing automation or a personalization tool. It focus on tracking past interests, purchases and more, so that the company can provide stronger ads and an overall good experience to the customer (Marketo, 2015).

Content marketing can be other tactic to be followed by companies who have a lower budget. It helps to create, distribute and share all relevant and compelling content that engages customers just in the right moment and thus help them while deciding what to buy (Järvinen and Taiminen, 2016).

It is also relevant to enhance the importance of influencers within DM strategies, which are people who can influence others by publishing or sharing content, or even allowing access to their network (Teng and Yazdanifard, 2013).

- **Action and Control**

While developing a strategy, it should be carefully outlined which actions to conduct, as well as the time frame to plan and implement them, and who is responsible for which task. Defining, for each digital channel, its role for the company and metrics to measure impact will help standing out from the crowd (BCG, 2012). Implementation and monitoring costs should also be taken into consideration, which may include staff's training or the purchase of certain management tools (Piñeiro-Otero and Martínez-Rolán, 2016). Tools such as Hootsuite help monitor company's keywords, competition and sector; and Google search help monitor company's website positioning in organic searches (Piñeiro-Otero and Martínez-Rolán, 2016).

All actions should be controlled, reviewed and corrected if necessary. This can be done by defining a metric's framework which determines the type of data to be examined, when to examine it and which KPIs to examine, in order to evaluate if the performance is according to the previously defined targets (Baker, 2003; Chaffey, 2006; Piñeiro-Otero and Martínez-Rolán, 2016). The success of a campaign depends extremely on the metrics collected from the several digital channels used (Marketo, 2015).

As DM tools are evolving fast, so are DM strategies. Thus, time to time, meetings should be scheduled in order to assess if the strategy is evolving positively, after verifying customer's feedback and quantitative data (Piñeiro-Otero and Martínez-Rolán, 2016).

2.4.3 Digital strategies and channels companies are using

Digitalization has profoundly impacted how companies interact with customers, have access to greatest amounts of data/insights or reach new customer segments (Leeflang et al., 2014; Borić et al., 2016). Leeflang et al. (2014) verified that not only company home pages, e-mail and social media were the most commonly used channels, but also that social media and mobile applications were going to experience the biggest growth of them all in 2 to 4 years.

For many, E-mail marketing still remains a powerful tool to get leads (Cornwall, 2015). Companies have databases of e-mail addresses of everyone who interacts or will interact with them. One of the strategies to get these e-mails has been offering special discounts/offers that require people to provide their e-mail address (Ghouse and Khan, 2016). Another strategy to get those e-mails are by purchasing them. Figure 2.8 presents strategies from two successful companies who are using E-mail marketing in order to get people to use their service: Uber and Dropbox.

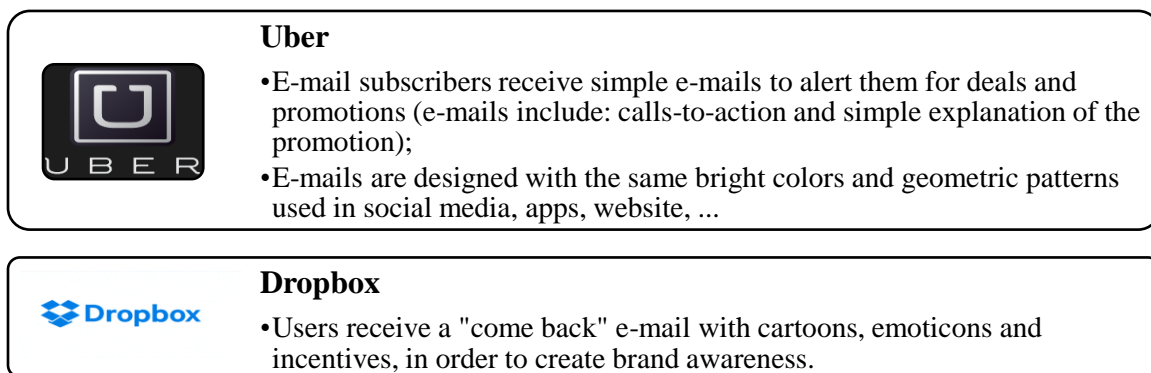


Figure 2.8 - Examples of E-mail marketing strategies used by Uber and Dropbox (Kolowich, 2017a).

Social networks are used by companies of all sectors to “increase product and brand awareness, increase web traffic, increase customer loyalty and increase success of new product launches” (Borić et al., 2016). Companies from the food sector for instance use Facebook in order to get consumer approval or to manage brand reputation (Confos and Davis, 2016).

Below are presented examples, collected from HubSpot (2017), of social media strategies used by different industry players across the world. Figure 2.9 presents examples of how is Facebook being used by Nike, TOMS and Microsoft. Figure 2.10 presents examples of how is Twitter being used by General Electric, Jet Blue and MIT (Massachusetts Institute of Technology). Figure 2.11 presents examples of how is LinkedIn being used by Coca-Cola and L’Oréal.

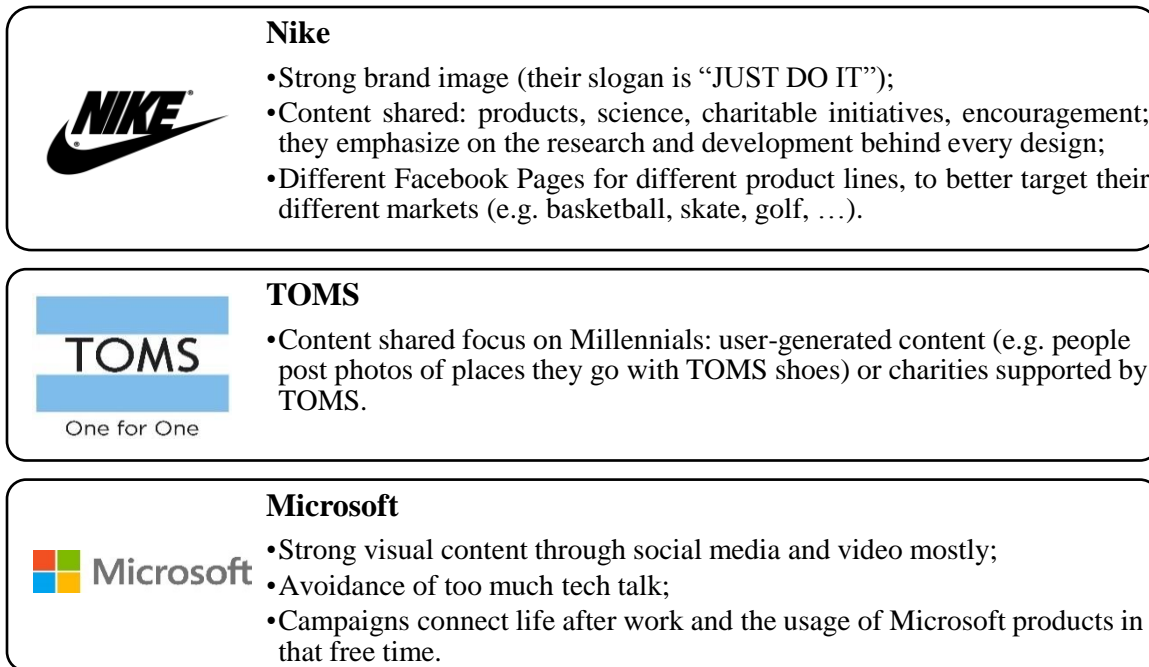


Figure 2.9 - Examples of Facebook strategies used by Nike, TOMS and Microsoft (Speier, 2017).

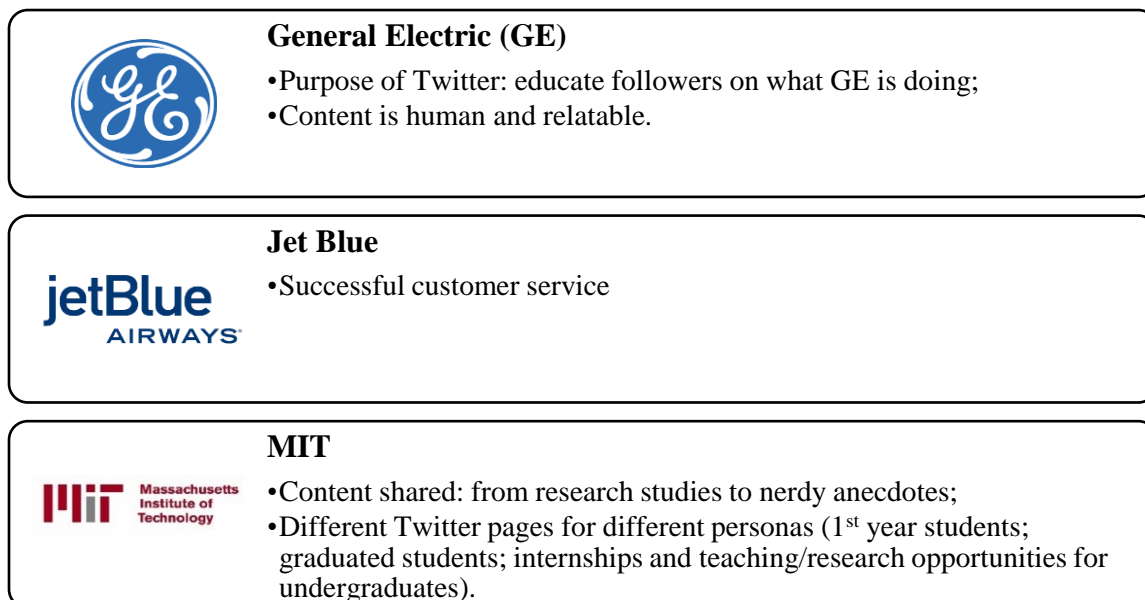


Figure 2.10 - Examples of Twitter strategies used by General Electric, Jet Blue and MIT (Kolowich, 2017b).

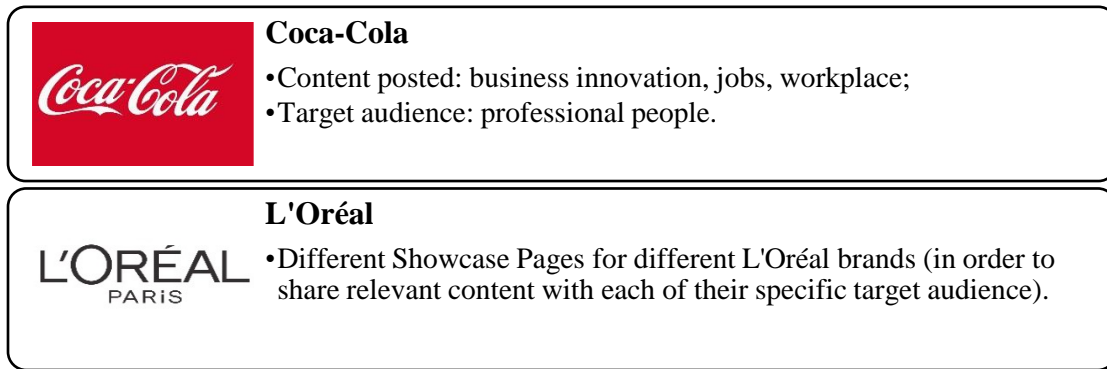


Figure 2.11 - Examples of LinkedIn strategies used by Coca-Cola and L'Oréal (Lazauskas, 2017).

Companies are also building communities for customers that are available anywhere and at any hour and day of the week. Communities such as Cisco's open innovation platform help strengthening the relationship with customers (Borić et al., 2016; Kannan and Li, 2017). Crowdsourcing platforms help not only to connect companies to their customers, but also to collect ideas for new products or services (Kannan and Li, 2017). According to Borić et al. (2016), video conferences, sales automation, websites, Internet and extranet are technologies used to achieve these ends.

User-generated content (UGC) is "online content created by website users rather than media owners or publishers – either through reviews, blogging, podcasting or posting comments, pictures or video" (Ryan and Jones, 2009). Using it to create brand awareness and improve brand reputation is very common amongst companies. Figure 2.12 presents UGC strategies from successful companies as GoPro, NASA and Mercedes-Benz.

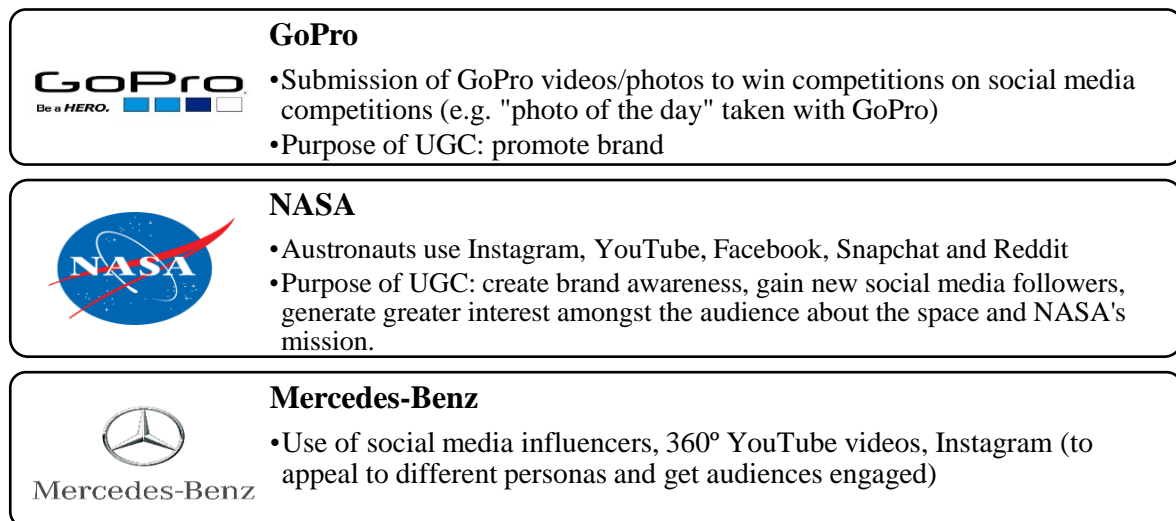


Figure 2.12 - Examples of UGC strategies by GoPro, NASA and Mercedes-Benz.

Big corporates are using a mix of traditional marketing and digital marketing channels to promote the brand, by communicating consistently and through a strong brand image (Anumolu et al., 2015; Marketing Schools.org, 2017). This is called integrated marketing, which regards to marketing that aims to promote a consistent brand experience for the consumer across multiple channels (e.g. TV, radio, Internet, in person,...) (Marketing Schools.org, 2017). Figure 2.13 presents Integrated Marketing strategies used by Porsche and Red Bull.

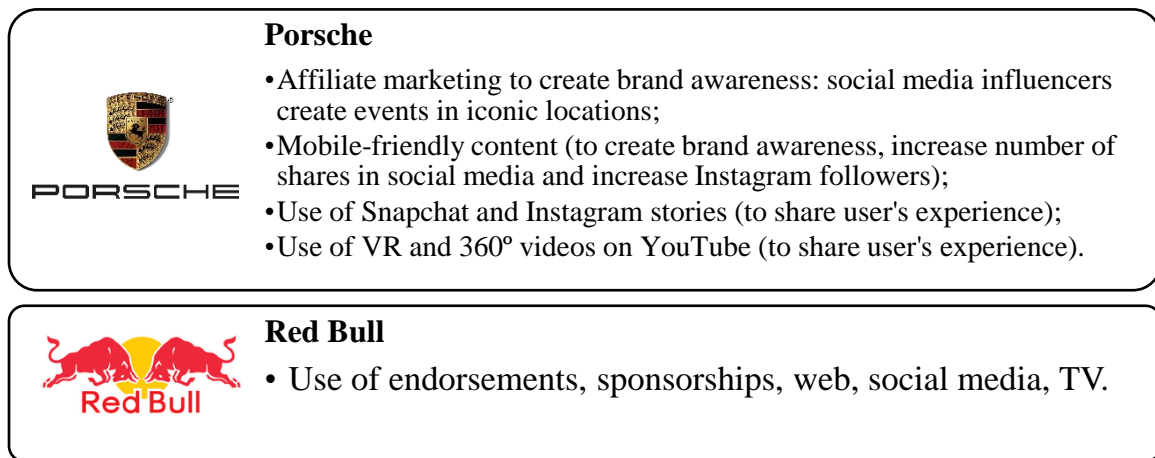


Figure 2.13 - Examples of Integrated Marketing strategies by Porsche and Red Bull.

DM amongst entrepreneurs, start-ups, accelerators

Even though traditional big corporates want to take advantage of the rise of digital technology and to embrace digital innovation challenges, sometimes it is not as easy for them as it is for smaller companies to do so (Nylén and Holmström, 2015).

This is why entrepreneurs are the main drivers of innovation. They are the ones who can change an entire industry just by having a disruptive idea overnight (such as Uber did).

Start-ups are companies whose growth can be exponential in a short period of time (Robehmed, 2013). To scale fast, they need to know their audience and their staff (Baskin, 2016). This is why DM is a strong ally for start-ups. By taking the most advantage of social media, SEO, SEM, e-mail marketing and so on, they can, for instance, create brand awareness or get new leads if they come up with a strong DM strategy that is sending the right message to the right person in the right time.

Another way of a start-up scale fast is by entering an acceleration program, who can provide them the right tools (office space, mentoring, networking...) to do so (Adams, 2017). To find existing acceleration programs, platforms such as AngelList or F6S are commonly used by accelerators to publish information about their acceleration programs (information such as: location, application deadlines for the acceleration program ...).

However, accelerators are not only looking for quality and talented start-ups to increase their reputation amongst investors, corporates or mentors, but they are also looking for outstanding corporate partners, investor or mentors to sponsor their programs and thus attract quality start-ups (Beta-i, 2017).

So, it is not enough to create a page on F6S or AngelList to do so. Accelerators need to build up their reputation, to create awareness of their program and of their startups, to attract corporates to sponsor their programs, and much more that can be done easily if they have a strong DM strategy to reach the right personas. Thus, throughout this dissertation, it will be unveiled how accelerators are using DM.

Chapter summary:

Throughout the years, consumer's behavior has changed. Nowadays, it is not a matter of deciding if a company should be online or not, but a matter of acknowledging that if consumers are online, the company must be online. Digital Marketing is the most effective way to reach out customers and to understand their needs. Digital elements used by all sorts of companies are: web pages, E-mail, SEM, online communities, blogs and social media. The way how smaller and greater companies use them is different, because these companies have different goals, needs and resources available. So even though greater corporates want to innovate digitally, they struggle more to do so rather than entrepreneurs, start-ups or accelerators, because they have a different structure that allows them to think out of the box and innovate in all ways, including their DM strategy.

Chapter 3

Accelerators

This chapter provides information about start-up accelerators, which are commonly mistaken with incubators. It also gives an overview of the rise of accelerators in the past few years, shows how they are distributed across the world, and gives an overview of the type of acceleration programs and of how they are using DM to achieve their objectives.

3.1 Accelerator's Definition

Y Combinator was the first accelerator back in 2005 in Cambridge, Massachusetts, followed by TechStars in 2007 in Boulder, Colorado (Miller and Bound, 2011). Being a recent phenomenon, it is understandable why it is so hard to come up with a precise definition of an accelerator (NESTA, 2014). In one of the reports from NESTA (2015) is referred that accelerators appeared with the purpose to help new businesses to grow.

Some say accelerators are “programs that help entrepreneurs bring their products into the marketplace” (Dempwolf et al., 2014). Others say accelerators “provide much more than space and common management services to start-ups. It helps form companies as legal entities, interviews and hires the appropriate initial management team, and lends its own management expertise” (Fishback et al., 2007).

Throughout this dissertation, the definition of accelerator given by Cohen and Hochberg (2014) will be adopted: an accelerator is “**a fixed-term, cohort-based program, including mentorship and educational components that culminates in a public pitch event or demo-day**”.

According to Miller and Bound (2011), accelerators comprise this set of characteristics:

- *Application process open to all*

Any entrepreneur from any corner of the world who has a start-up is encouraged to participate in the accelerator's programme. The first step usually begins with a simple application form, followed by an interview (Miller and Bound, 2011).

The process of choosing a start-up is so competitive that, for instance, accelerators such as Y Combinator only select 3% of its applications (Regmi et al., 2015). However, the number of start-ups selected vary with the accelerator. While TechStars only selects ten companies, Y Combinator does not have a limit (Miller and Bound, 2011).

- *Pre-seed investment, usually in exchange for equity*

Usually between 11 000 to 55 000 euros are provided to the start-up to support the living costs of each co-founder during the program and a short period afterwards (Miller and Bound, 2011).

- *Focus on small teams*

Accelerators often choose start-ups with two or three co-founders. This happens because, on one hand, one person is not enough to take care of all the hard work a start-up requires and, in the other hand, it is difficult to cover the living costs of four co-founders (Miller and Bound, 2011).

- *Start-ups' support*

An acceleration program lasts between three to six months, and within that time frame start-ups have access to experts specialized in areas such as Growth & Sales, legal & taxes, technology and finance. Apart from that, introductions and thematic sessions are organized, along with numerous opportunities to practice pitches for the Demo Day, which is the culmination of the accelerator's programme, bringing together start-ups, venture and angel investors and media (Miller and Bound, 2011).

- *Cohorts of start-ups*

Accelerators programs can offer desk space in their offices or limit the interactions per week between the selected cohorts of start-ups and accelerators. However, the first option is, most of the times, the best one. Co-working is vital for the accelerator program: start-ups can help each other (all the way from technical problems to pitching feedback) and accelerator's management team has more time available to bring outside experts.

3.2 Distinguishing accelerator from other entities

The existing challenge in defining what an accelerator is often leads to the misuse of the word accelerator. In fact, it is common to find researchers referring to an incubator or angel investor in their articles, when in fact they are talking about an accelerator or vice-versa. To the National Business Incubation Association (NBIA), the main purpose of an accelerator is to help the start-up grow fast, while an incubator focus on developing a more sustainable business model (Dempwolf et al., 2014).

Besides incubators, it is also common to talk about angel investors who are individuals who invest in start-ups based on their personal interests (Cohen and Hochberg, 2014). Cohen and Hochberg (2014) came up with the results presented in Table 3.1 that resumes the main differences between accelerators, incubators and angel investors.

Table 3.1 - Main features across different startup players (Cohen and Hochberg, 2014).

Types	Incubator	Accelerator	Angel investor
Duration	1 to 5 years	3-6 months	Ongoing
Cohorts	No	Yes	No
Business model	Rent, non-profit	Investment, non-profit	Investment
Venture stage	Early or late	Early	Early
Education offered	Administration, HR	Seminars	None
Venture location	On-site	Usually on site	Off-site
Mentorship	Minimal, tactical	Intense, by self and others	As needed, by investor

Besides these three players supporting start-up programs, there are other forms of supporting them, which are closely aligned with the acceleration definition and can be combined with the acceleration program, such as (NESTA, 2014):

- *Angel networks*

Groups of investors who bet their private capital on start-ups and give them useful advices.

- *Business competitions*

They help finding excited and talented entrepreneurs, as well as stimulate the innovation spirit.

- *Co-working spaces*

These spaces give start-ups a place to work along with other start-ups and entrepreneurs, as well as the opportunity to participate in a set of educational events that will pump up their businesses.

- *Entrepreneurship courses*

Entrepreneurship 101 classes are usually taught at business schools.

- *Hackathons/Start-up weekends*

Intensive programs that help deciding the viability of a start-up.

- *Mentoring schemes*

Events that allow mentors to share their expertise.

- *Seed funds*

“Provide initial equity funding to start-ups”

- *Social venture academies*

These programs involve learning about social venture and entrepreneurs, independently of their growing stage.

3.3 Types of accelerators

After the burst of the dot com bubble, it was hard for many ventures to find investment (Hoffman and Radojevich-Kelley, 2012). To fill in this blank, different types of accelerators were created with different purposes. Regarding the way how they get funding, accelerators can be disclosed into two types: private (e.g. venture-backed or corporate-sponsored) and public (e.g. government-backed) (NESTA, 2014).

Private accelerators, such as TechStars or NUMA, usually take a percentage of equity from start-ups who are accelerated, as a way to cover program expenses. Public accelerators, such as Beta-i or Startup Chile, are funded by public organizations or supported by corporate partnerships (or a combination of both) (NESTA, 2014).

Moreover, while private accelerators who are venture-backed aim to help investors getting a better deal flow, private accelerators who are corporate-backed may be created for two reasons: develop an ecosystem about a specific technology (e.g. PwC accelerator) or to help innovate a specific research issue (e.g. Amorim Cork Ventures). Government-backed accelerators are mostly created with the purpose of empower local economic growth (e.g. Startup Chile) (NESTA, 2014).

3.4 Types of acceleration programs

Even though an acceleration program can focus their mission depending on the type of funding they get, they can also choose to have a sector focus, gender focus or any other kind of speciality.

Focusing in one start-up or sector specific characteristic may be one advantage to the accelerator, because it enables it to provide a specialized program according to the common characteristics of the start-ups chosen or of that industry sector. Specializing in one characteristic may also increase competition and empower the need for differentiation between same type of accelerators (NESTA, 2014).

Below are explained some of the main characteristics of different acceleration programs, namely: vertical acceleration, horizontal acceleration, general acceleration and pre-acceleration.

3.4.1 Horizontal acceleration

Horizontal accelerators are focused on start-ups who have a specific product who can meet the expectations across different market niches.

3.4.2 Generic acceleration

Initially, lots of accelerators were generic or horizontal focused. Generic accelerators do not focus in one specific vertical sector or in a specific product/technology, but in a variety of different verticals and products.

3.4.3 Vertical acceleration

Even though at the beginning accelerators were more horizontal focused, along with the maturation of the acceleration sector they realized there are several advantages in shifting towards verticalization. Besides allowing start-ups to be in touch with experts in the area who can provide them valuable connections, it also empowers corporates to engage with start-ups who can help their specific business (NESTA, 2014; NUMA, 2014).

A vertical acceleration program refers to accelerators who have a focus on a specific vertical (e.g. FinTech, IoT, ...). Examples of vertical programs are Barclays' accelerator powered by TechStars which is focused on FinTech (NESTA, 2014; NUMA, 2014).

Vertical acceleration programs can also be gender specific. Female High Fliers Accelerator focus on accelerating early stage start-ups who are founded by female entrepreneurs.

3.4.4 Pre-acceleration

There is more people starting their own business each day that passes. According to the Kauffman Index: Startup Activity (2015), start-up activity is rising up, especially since 2010.

With the increase of new businesses, educating on entrepreneurship and provide more information on how to start new ventures is a must to create a quality ecosystem with early stage start-ups (NUMA, 2014).

This is the reason why pre-acceleration programs were created, in order to focus on accelerating start-ups in a very early stage, instead of start-ups who have already raised a significant amount of money (NUMA, 2014).

Accelerators running these kind of acceleration programs are Beta-haus (Berlin), as well as universities such as Accelerate Cambridge or Melbourne Accelerator (NUMA, 2014).

3.5 The rise of accelerators

Accelerators are a relatively recent phenomenon who have been attracting the private and public sectors a little bit throughout the world. Since Y Combinator was founded in 2005, it was followed by TechStars in 2007 and by a significant number of accelerators afterwards (Cohen and Hochberg, 2014). The difficulty in defining what is an accelerator and its fast growth made it impossible to find recent and trustworthy sources which estimate the actual number of accelerators existing nowadays across the world. In 2011, however, it was estimated there were between 300 to 2000 accelerators worldwide (Cohen and Hochberg, 2014).

According to Telefonica Europe (2013), the rise of accelerators and incubators has increased 400% between 2007 and 2013 since the start of the financial crisis. In 2015, Gust report indicated the presence of 29% of accelerators in Europe, 29% in USA & Canada, 16% in Latin America, 14% in Asia & Australia and 12% in the Middle East, as presented in Figure 3.1.

Accelerators programs worldwide

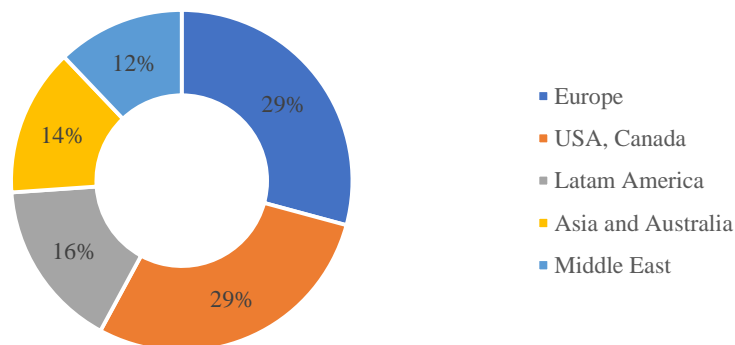


Figure 3.1 - Regional comparison of accelerator programs (Gust, 2015).

3.6 Relevance of accelerators

The sudden increase of the number of accelerators around the globe may rise some questions regarding if they are really necessary or not (Carr, 2012). According to this author, the majority of the accelerators try to follow the path of TechStars and Y Combinator. However, about 90% of them fail, and there is no data that allows researchers to justify it (Regmi et al., 2015).

Therefore, Carr (2012) incites entrepreneurs that are searching for an accelerator to help their business grow to do their homework before applying to any program. Accelerators allow start-ups from the same cohort to learn from each other, go through an intensive mentoring and attend to several events. However, the entrepreneur needs to find the accelerator that offers not only the amount of equity that better fits their plans, as well as provides access to a relevant and vast alumni, investor and mentor networks.

The relevance of accelerators is not limited to start-ups though. Venture capitalists, angel investors, corporates, governments and service providers benefit from accelerators, even though they benefit through different ways.

Regarding angel investors, they lose less time and money looking for start-ups and making the necessary due diligence. They can also increase their network by meeting other investors and founders (Miller and Bound, 2011).

Venture capitalists are able to filter talent, invest in quality start-ups that are part of the accelerator's cohorts, provide support, have access to new technology and to meet other investors and founders (Miller and Bound, 2011; NESTA, 2014).

Corporates have the opportunity to develop internally, do scouting for new employees, do open innovation, do mergers and acquisitions, or do collaborative research thus associating their brand with supporting new businesses (Miller and Bound, 2011; NESTA, 2014).

Governments usually bet on accelerators with the purpose of promoting local economic growth, which can be done through the development of the local start-up community or even by supporting accelerators who will make a significant social or environmental difference (NESTA, 2014).

Finally, service providers will find in the accelerator's cohort new customers to rely on (Miller and Bound, 2011).

Thus, even though there is a great amount of accelerators and the number just keeps increasing, most of them have a positive impact not only of the performance of start-ups, but of the remaining players of the ecosystem, which only highlights its importance to help them achieve success (Hathaway, 2016).

3.7 Accelerators and digital marketing

On chapter 2 were presented the main elements of DM and strategies of companies nowadays. It was also talked about how important it is to understand and identify what people want or need (Giddings, 2017). In the entrepreneurial world, it is equally important to understand this and to establish a DM plan to achieve the goals desired.

Taking by instance start-ups, DM helps them getting engaged with their audience at the same time it saves costs when compared with standard marketing techniques. Besides, it allows to build a cohesive strategy, which is adapted to each customer and monitored by metrics which control customer's activity and helps start-ups to achieve success (Kapoor, 2017).

When talking about incubators, Giddings (2017) says “marketing must be seen as an integral and fundamental part of incubator management”. First of all, incubators must understand who are their stakeholders (and in which markets they are) and develop a value proposition that will attract them and get their support. Second of all, incubators must integrate marketing within all departments, in order to provide the best experience to their stakeholders (Giddings, 2017).

Incubators' stakeholders can range from governments to entrepreneurs, shareholders or communities. The government assumes a relevant position though, because in many cases it is where incubators get their funding from (Giddings, 2017).

As seen before in this chapter, incubators are quite different from accelerators. Even though they have similar objectives regarding providing “the right message to the right person at the right time in the right way to deliver the right results” (Riley, 2013), they have different ways of doing so because their objectives are also not quite the same. Moreover, not all accelerators can adopt the same DM strategy. There are societal, economic and technological contexts that influence the different objectives an accelerator want to achieve, the different markets to reach out and the different digital channels to do so.

According to Riley (2013), the rise of accelerators across the world enhance them to make marketing decisions such as:

- Improve the communication of their value proposition (e.g. what makes an accelerator unique);
- Disseminate the accelerator's culture to attract quality stakeholders (e.g. start-ups, companies and mentors);
- Promote program applications in the right time (e.g. when teams with great ideas get rejected from other programs, it is the right moment to grab their attention);
- Use mentors, alumni network or Tech Crunch writers to do posts and tweets to get the word out;
- Attend start-up/investor events, tech conferences or demo days to make helpful connections;
- Partner up with companies seeking for innovation to raise awareness.

Furthermore, Landers (2015) gave some tips for an accelerator to attract top start-ups:

- Use correct tags on AngelList (e.g. if a company who is not really an accelerator uses the tag "accelerator" in its channel, it gives the appearance of not being professional);
- Give details regarding length of the program, deadlines to apply, ...;
- Market a consistent program: design a logo, create social media accounts, assign people to be in charge of social media and do constant updates about upcoming events, program or new alumnis;
- Specify who is the accelerator's core team;
- Include photos of cohorts: it gives credibility and shows the accelerator's spirit.

Taking into consideration there was no academic research conducted on DM strategy of start-up accelerators, it will be analysed furthermore how they vary from country to country, from vertical accelerators to general accelerators, and several other accelerator's characteristics that were considered to be interesting to analyse.

Chapter summary:

Accelerators help start-ups in early stages of development to succeed by providing them office spaces, intensive mentoring, networking opportunities and a variety of other perks. Accelerators are not only helpful to start-ups, but also to develop local economies along with the government and investors, or drive innovation along with recognized companies. The number of accelerators has been increasing each year since the first accelerator (Y Combinator) was created in 2005. The increase of the competition leads to the need of an accelerator to stand out from the crowd, which can be done through the improvement of their DM strategy on: SEM techniques, powerful social media, quality content and affiliate marketing.

Chapter 4

Survey results: the global picture

In the following chapter it is firstly presented a brief of the survey carried out amongst accelerators across the world. Secondly, the results from the survey are presented, based on descriptive analysis. These results allow the reader to have an overall understanding of how Digital Marketing is faced by start-up accelerators nowadays, based on the objectives they are trying to reach and the digital channels they are using.

4.1 Overview of the survey

A survey containing 3 parts and 30 questions was conducted amongst 300 worldwide start-up accelerators from March 27th 2017 to April 29th 2017, where a total of 60 answers were collected. This survey aimed to explore the Digital Marketing strategies start-ups accelerators are following.

While elaborating the survey, it was important to avoid misunderstandings by respondents. To avoid so, two marketing managers from two accelerators that play an important role in the ecosystem were asked to give their feedback on a preliminary survey. This way, the quality and structure of the survey was most likely assured.



Figure 4.1 - Survey's structure.

Figure 4.1 represents the three main sections that guided the survey, which was entirely conducted in English. The first section, which included 8 questions, allowed to identify the main characteristics of the accelerator, by collecting information such as: location, year of foundation, position of the respondent within the accelerator, nature of the accelerator, nature of the acceleration's program, number of people working full-time and number of people working in the marketing team members. Figure 4.2 presents in more detail these characteristics.

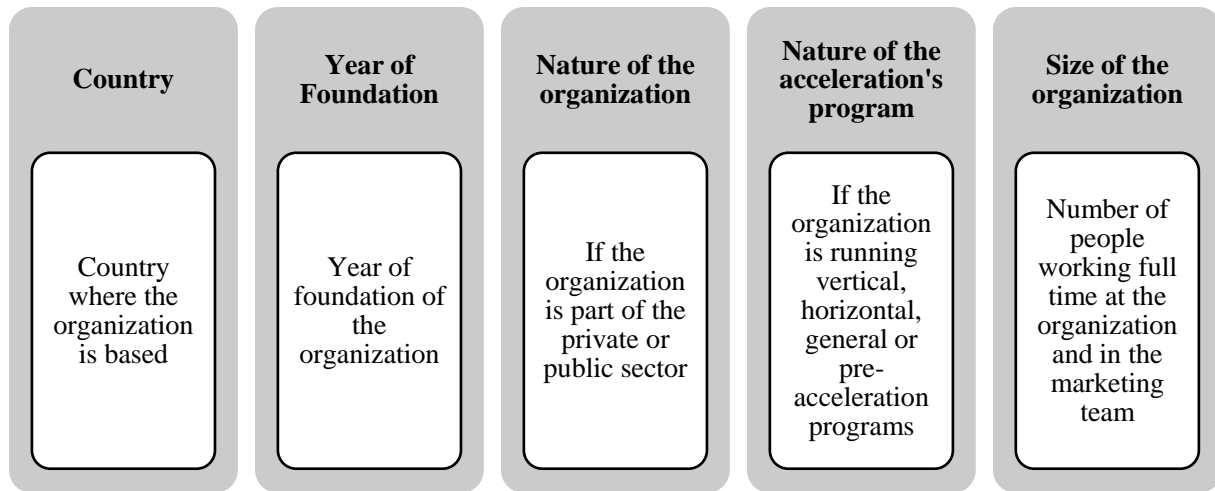


Figure 4.2 – Types of characteristics of the accelerator explored in the survey.

The second section, which had 4 questions, helped understanding how often accelerators are using DM to reach certain objectives, as well as which were the main challenges faced within this area.

The third and final section, which had a total of 18 questions, explored how frequent accelerators are using digital channels to reach specific audiences (start-ups, corporates, investors, government, universities and media), and also how accelerators are using E-Mail Marketing, Facebook Marketing and Twitter Marketing to reach to certain goals, which are the Key Performance Indicators (KPIs) used for each of these three channels and how often they are evaluating their strategy for these three channels. Closing this section, the last question asked was about the Digital Marketing areas accelerators are going to invest in 2018. In Appendix I are available all survey's questions.

Up to the date this research started to be developed, no studies had been conducted relating Digital Marketing and start-up accelerators. This is the main reason why this survey was so detailed, so that it was possible to collect as many information as possible regarding DM strategies amongst start-up accelerators. Having the global picture will help understand the behavior of accelerators, thus providing real value to this community.

4.2 Descriptive statistics and assumptions

Data presented in this section is based on descriptive statistics, which means that is a simple way of summarizing all the data from the survey in a meaningful way. Because there were many variables, the study began by focusing on a univariate analysis, i.e., by focusing on analysing one variable at a time. This

way, it is possible to study each variable's measures of central tendency (mean, median and mode) and measures of spread (standard deviation).

A total of 60 answers was collected in one month, but only 59 were used in the descriptive analysis, because of incorrect fulfilment of the survey's fields. As all questions were mandatory, it was assured that there were valid answers from all questions. Note also that "N/A" (Not Applicable) answers were considered as "Never" or "Non important" answers.

4.3 Location of the organization

Amongst 59 organizations, 14 were from the USA (24%), 6 from Portugal (10%), 5 from the United Kingdom (9%), 3 from Egypt (5%), 3 from Germany (5%) and 3 from Spain (5%). Figure 4.3 presents these results.

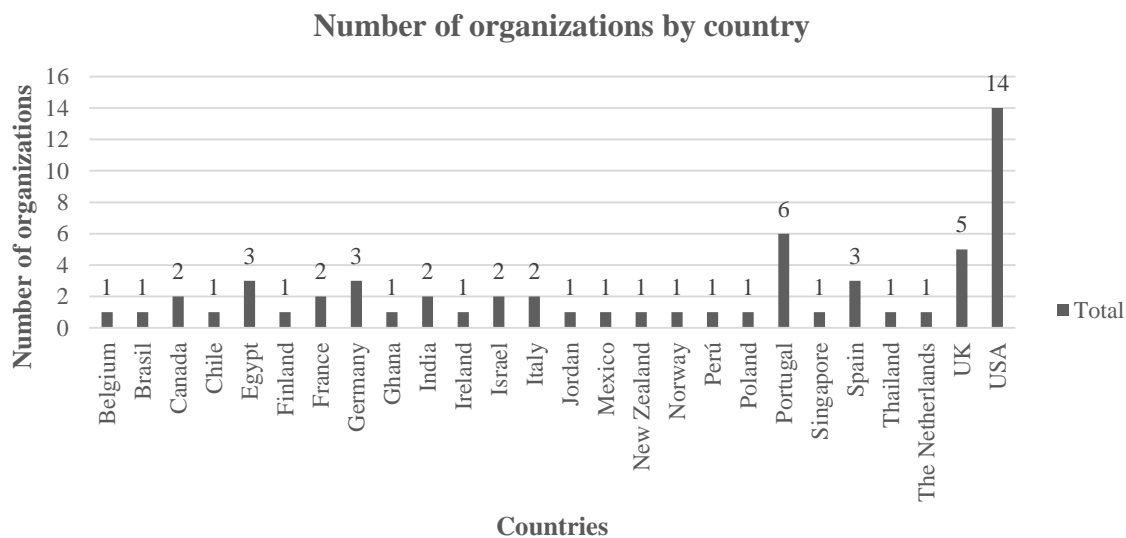


Figure 4.3 - Number of organizations from each country.

Amongst 59 organizations, 21 were from Europe (36%), 16 from North America (27%), 6 from Portugal (10%) and 5 from Asia & Oceania (8%). Figure 4.4 presents these results.



Figure 4.4 - Number of organizations per location.

4.4 Year of Foundation

Amongst 59 organizations, 10 were founded in 2013 (17%), 9 were founded in 2010 (15%), 9 were founded in 2016 (15%), 8 were founded in 2012 (14%) and 8 were founded in 2015 (14%). Figure 4.5 presents these results.

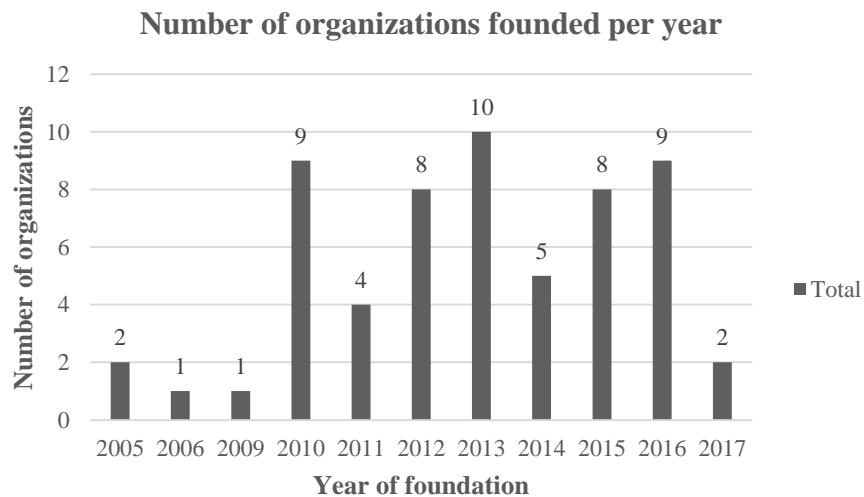


Figure 4.5 - Number of organizations founded per year from 2005 to 2017.

4.5 Position of the participant within the organization

Amongst 59 organizations, 22 survey participants are working in the Marketing department (37%), 18 survey participants are working as Program Managers (31%) and 14 survey participants are working in a Direction position (24%). Figure 4.6 presents these results.

Percentage of positions of survey participants within organizations

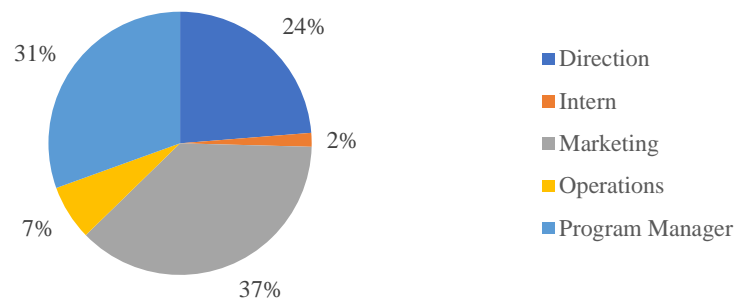


Figure 4.6 - Percentage of participants in different departments who participated in the survey.

4.6 Nature of the organization

Amongst 59 organizations, 53 of the organizations are operating in the private sector (90%) and 6 organizations are operating in the public sector (10%). Figure 4.7 presents these results.

Percentage of each type of organization

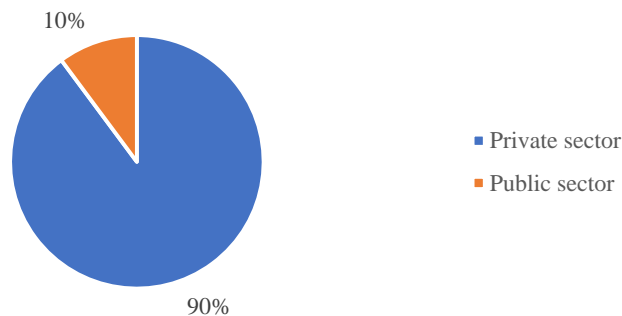


Figure 4.7 - Percentage of each type of organizations.

4.7 Nature of the acceleration programs

Amongst 59 organizations, 33 are running vertical acceleration programs (56%), 12 are running general acceleration programs (20%), 10 are running pre-acceleration programs (17%) and 4 are running horizontal acceleration programs (7%). Figure 4.8 presents these results.

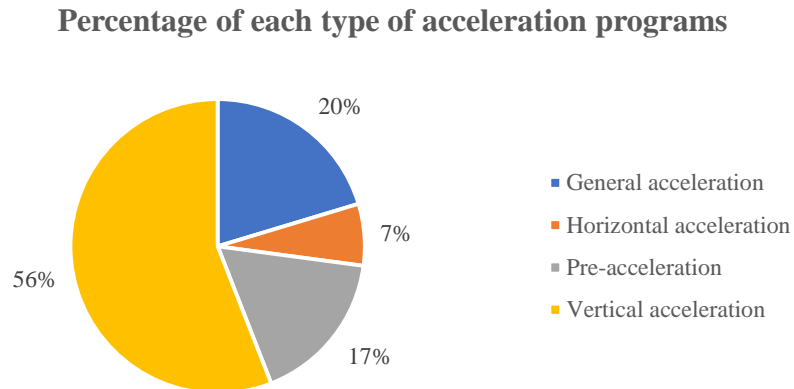


Figure 4.8 - Percentage of each type of acceleration program.

4.8 Number of acceleration programs by organization

Amongst 59 organizations, 34 run one acceleration program (58%) and 25 run two acceleration programs (42%). Figure 4.9 presents these results.

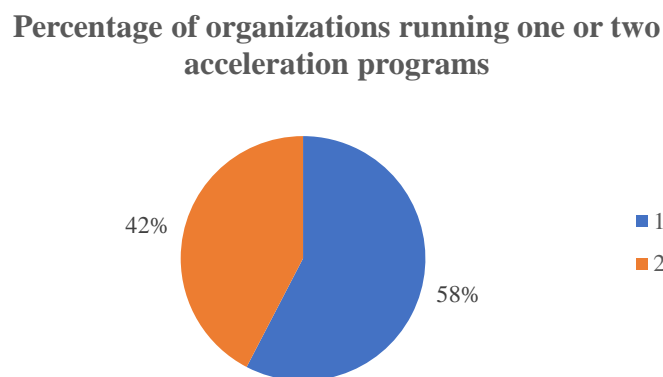


Figure 4.9 - Percentage of organizations running one or two acceleration programs.

4.9 Number of people working full-time within the organization

Amongst 59 organizations, 32 have 0 to 5 people working full-time (54%), 15 have 6 to 10 people working full-time (25,4%) and 6 organizations have 11 to 20 people working full-time (10%). Figure 4.10 presents these results.

Percentage of full-time workers within the organization

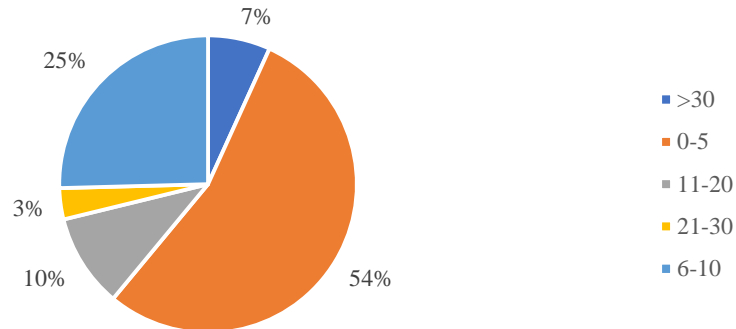


Figure 4.10 - Percentage of people working full-time within the organization.

4.10 Number of people working in the marketing team of the organization

Amongst 59 organizations, 56 organizations have 0 to 5 people working in their marketing team (94,9%), 2 organizations have 11 to 20 people working in their marketing team (3,4%) and 1 organization has 6 to 10 people working in their marketing team (1,7%). Figure 4.11 presents these results.

Percentage of people working in the marketing team within the organization

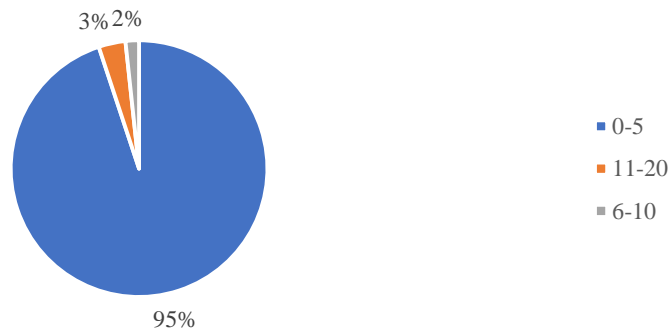


Figure 4.11 - Percentage of people working in the marketing team within the organization.

4.11 Digital Marketing objectives

In this section, it was studied how often organizations use Digital Marketing to reach each one of the objectives shown in Figure 4.12. These objectives are a result of two interviews conducted with Marketing Managers from Portuguese and Spanish accelerators. So that the time perception of the survey participant and of the research's authors was alike, the following classification was assigned: 1- Never; 2- Occasionally (1 to 3 times a year); 3- Monthly; 4- Weekly; 5- Daily.



Figure 4.12 - Objectives achieved through Digital Marketing (mean values).

On one hand, means indicate that organizations use often (weekly) DM to attract quality start-ups (3,90), build an entrepreneurship community (3,90) and drive brand awareness (3,83). On the other hand, organizations use DM occasionally (1 to 3 times a year) to do crowdsourcing (2,24), and to follow up other competition's activity (2,76).

Table 4.1 - DM objectives – basic statistics.

DM Objectives	Mean	Standard deviation	Median
Attract quality start-ups	3,90	0,94	4
Build an entrepreneurship community	3,90	0,99	4
Drive brand awareness	3,83	1,04	4
Provide online support	3,39	1,20	4
Provide relevant content to corporates and investors	3,07	1,27	3
Attract quality corporates	3,03	1,27	3
Support decision-making process	3,00	1,34	3
Attract successful influencers	2,97	1,22	3
Attract quality investors	2,97	1,20	3
Competition follow-up	2,76	1,32	3
Crowdsourcing	2,24	1,33	2

Median values from Table 4.1 allow to verify that most organizations use DM often (weekly) to drive brand awareness, attract quality start-ups, build an entrepreneurship community, and provide online support. Most organizations use DM sometimes (monthly) to provide relevant content to corporates and investors, attract successful influencers, attract quality corporates and investors, support decision-making process and follow up competition's activity. Finally, most organizations use DM occasionally (1 to 3 times per year) to do crowdsourcing.

Besides the above-mentioned DM objectives, others were mentioned in the survey, namely:

- Customer discovery;
- Content creation;
- Attract deal flow and media attention;
- Give exposure to startups in the program;
- Promote events;
- Recruit teams and individuals for the startups;
- Establish the organization as an industry thought leader;
- SEO/SEM.

4.12 Digital Marketing challenges

Figure 4.13 presents the main Digital Marketing areas accelerators consider to be a challenge. The classification chosen means the following: 1- Not important; 2- Somewhat important; 3- Important; 4- Very important; 5- Extremely important.

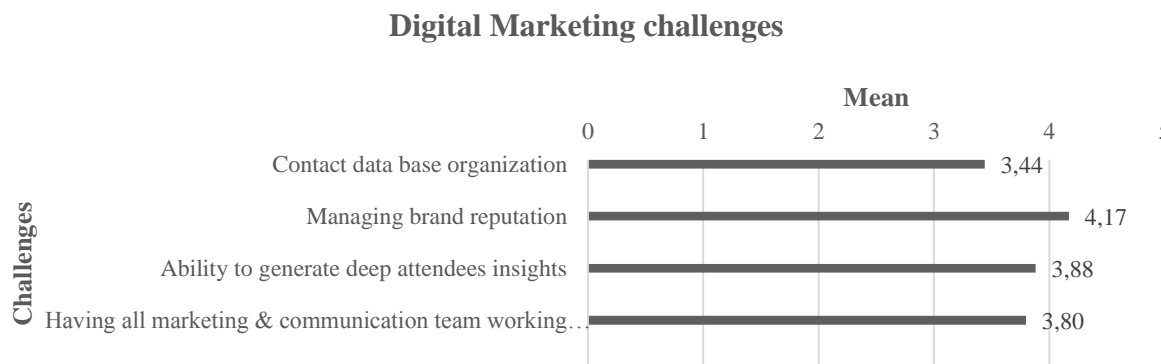


Figure 4.13 - DM challenges (mean values).

On average, means indicate that organizations consider to be a very important DM challenge to manage brand reputation, generate deep attendees' insights and having all marketing and communication team

working towards the same goals and objectives. On average, organizations consider “contact data base organization” an important DM challenge.

Table 4.2 - DM challenges – basic statistics.

DM challenges	Mean	Standard deviation	Median
Managing brand reputation	4,17	0,97	4
Ability to generate deep attendees insights	3,88	0,95	4
Having all marketing and communication team working towards the same goals and objectives	3,80	1,16	4
Contact data base organization	3,44	1,33	4

Median values from Table 4.2 show that most organizations agree that the above DM challenges are very important to them.

Besides the above-mentioned challenges, in the survey were also referred other challenges organizations are facing, namely:

- Standing out from the crowd when talking about DM techniques, because everyone is using it today;
- Attracting high-quality individual candidates;
- Making the organization’s brand to be recognize;
- Provide quality content, suitable for the audience (researchers, start-ups, investors and corporates);
- Resources to spent on DM, in particular staff resources;
- Reaching out to corporates;
- Reaching out to accelerator’s program participants;
- Lack of time to invest in the marketing area;
- Bandwidth;
- Building a community.

4.13 Digital Marketing channels

In this section, it was studied how often organizations use digital channels to reach out to a specific audience (start-ups, corporates, investors, government, universities and media). The classification was as follows: 1- Never; 2- Occasionally (1 to 3 times a year); 3- Monthly; 4- Often (weekly); 5- Regularly (daily).

Note that other target audiences and digital channels were mentioned by organizations in the survey, namely:

- To target audiences for thought leadership: Slide share;
- EU funders: Start-up Europe;

- Direct consumer;
- Syndicates;
- To spread the organization's training services amongst a broader audience: Facebook, YouTube and E-mail.

4.13.1 Use of digital channels to reach start-ups

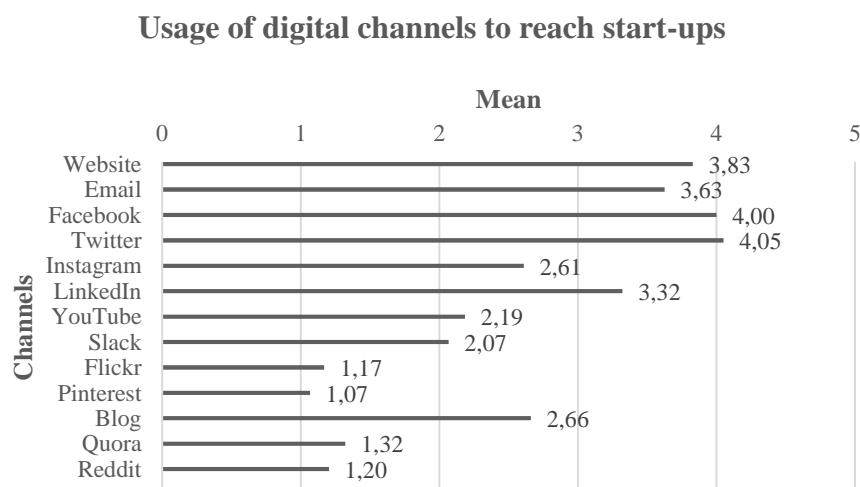


Figure 4.14 – Frequency of using these digital channels to reach start-ups (mean value).

On one hand, organizations use Facebook (4,00) and Twitter (4,05) weekly to reach start-ups. On the other hand, organizations never use Pinterest (1,07), Flickr (1,17), Reddit (1,20) and Quora (1,32) them.

Table 4.3 - Digital channels to reach start-ups (basic statistics).

DM channels	Mean	Standard deviation	Median
Twitter	4,05	1,22	4
Facebook	4,00	1,07	4
Website	3,83	1,04	4
E-mail	3,63	0,93	4
LinkedIn	3,32	1,25	4
Blog	2,66	1,28	3
Instagram	2,61	1,58	2
YouTube	2,19	1,04	2
Slack	2,07	1,54	1
Quora	1,32	0,71	1
Reddit	1,20	0,58	1
Flickr	1,17	0,53	1
Pinterest	1,07	0,25	1

By observing median values from Table 4.3, most organizations use often (weekly) Website, E-mail, Facebook, Twitter and LinkedIn to reach start-ups. Most organizations use Blogs sometimes (monthly), and

Instagram and YouTube occasionally (1 to 3 times per year) to reach start-ups. Finally, most organizations never use Slack, Flickr, Pinterest, Quora and Reddit to reach start-ups.

4.13.2 Use of digital channels to reach corporates

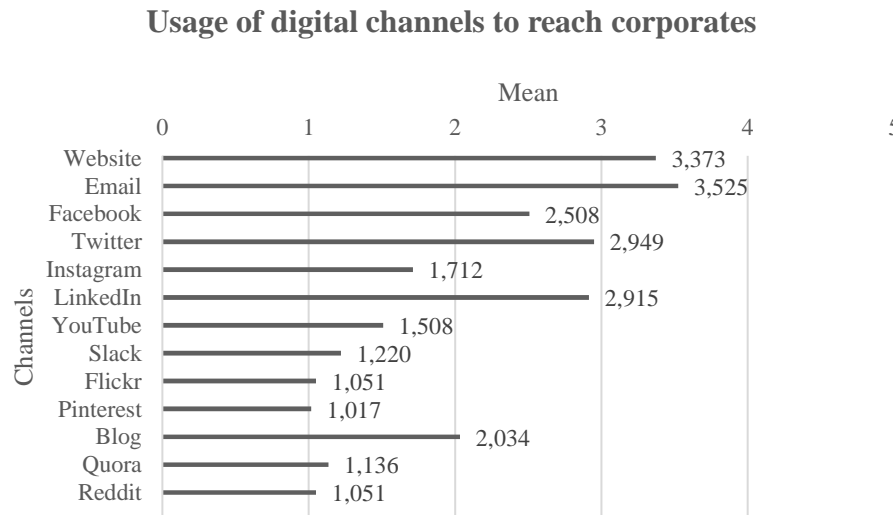


Figure 4.15 – Frequency of using these digital channels to reach corporates (mean value).

On one hand, on average organizations use sometimes (monthly) E-mail (3,525) and Website (3,373) to reach corporates. On the other hand, on average organizations almost never use Pinterest (1,017), Flickr (1,051), Reddit (1,051), Quora (1,136), and Slack (1,220) to reach corporates.

Table 4.4 - Digital channels to reach corporates (basic statistics).

DM channels	Mean	Standard deviation	Median
E-mail	3,53	1,13	4
Website	3,37	1,34	4
Twitter	2,95	1,41	3
LinkedIn	2,92	1,45	3
Facebook	2,51	1,43	3
Blog	2,03	1,26	1
Instagram	1,71	1,25	1
YouTube	1,51	0,86	1
Slack	1,22	0,65	1
Quora	1,14	0,54	1
Flickr	1,05	0,22	1
Reddit	1,05	0,29	1
Pinterest	1,02	0,13	1

By observing median values from Table 4.4, most organizations use often (weekly) Website and E-mail to reach corporates. Most organizations use sometimes (monthly) Facebook, Twitter and LinkedIn to reach

corporates. Finally, most organizations never use Instagram, YouTube, Slack, Flickr, Pinterest, Blog, Quora and Reddit to reach corporates.

4.13.3 Use of digital channels to reach investors

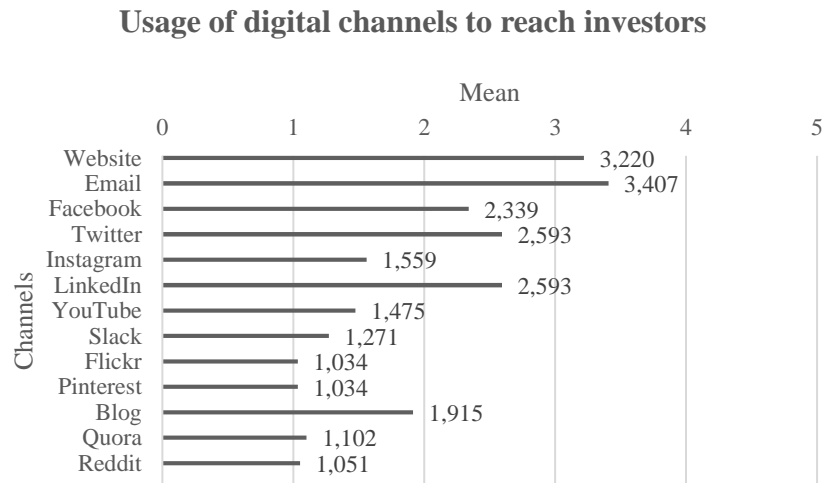


Figure 4.16 – Frequency of using these digital channels to reach investors (mean value).

On one hand, on average organizations use sometimes (monthly) E-mail (3,407) and Website (3,220) to reach investors. On the other hand, on average organizations never use Flickr (1,034), Pinterest (1,034), Reddit (1,051) and Quora (1,102) to reach investors.

Table 4.5 - DM channels to reach investors (basic statistics).

DM channels	Mean	Standard deviation	Median
E-mail	3,41	1,05	4
Website	3,22	1,37	3
Twitter	2,59	1,46	3
LinkedIn	2,59	1,40	2
Facebook	2,34	1,42	2
Blog	1,92	1,25	1
Instagram	1,56	1,15	1
YouTube	1,47	0,84	1
Slack	1,27	0,83	1
Quora	1,10	0,48	1
Reddit	1,05	0,29	1
Flickr	1,03	0,18	1
Pinterest	1,03	0,18	1

By observing median values from Table 4.5, it is verified that most organizations use E-mail often (weekly) to reach investors. Most organizations use sometimes (monthly) Website and Twitter to reach investors, and

Facebook and LinkedIn occasionally (1 to 3 times per year) to reach them. Finally, most organizations never use Instagram, YouTube, Slack, Flickr, Pinterest, Blog, Quora and Reddit to reach investors.

4.13.4 Use of digital channels to reach the government

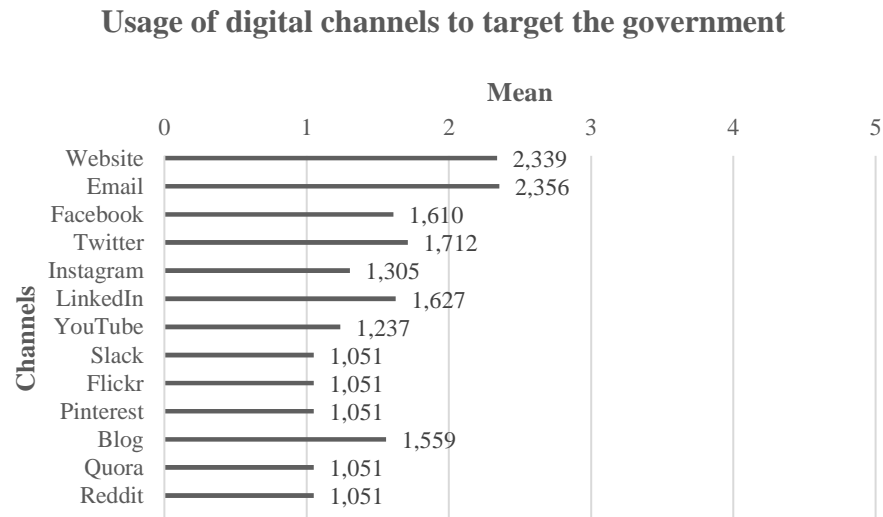


Figure 4.17 - Frequency of using these digital channels to reach the government (mean values).

On one hand, organizations use occasionally (1 to 3 times per year) E-mail (2,356) and Website (2,339) to reach the government. On the other hand, organizations never use Slack (1,051), Flickr (1,051), Pinterest (1,051), Quora (1,051) and Reddit (1,051) to reach the government.

Table 4.6 - DM channels to reach the government (basic statistics).

DM channels	Mean	Standard deviation	Median
E-mail	2,36	1,28	2
Website	2,34	1,45	2
Twitter	1,71	1,03	1
LinkedIn	1,63	1,03	1
Facebook	1,61	0,98	1
Blog	1,56	1,04	1
Instagram	1,31	0,79	1
YouTube	1,24	0,65	1
Slack	1,05	0,29	1
Flickr	1,05	0,29	1
Pinterest	1,05	0,29	1
Quora	1,05	0,29	1
Reddit	1,05	0,29	1

By observing median values from Table 4.6, most organizations use 1 to 3 times per year Website and E-mail to reach the government. Finally, most organizations never use Facebook, Twitter, LinkedIn, Instagram, YouTube, Slack, Flickr, Pinterest, Blog, Quora and Reddit to reach the government.

4.13.5 Use of digital channels to reach universities

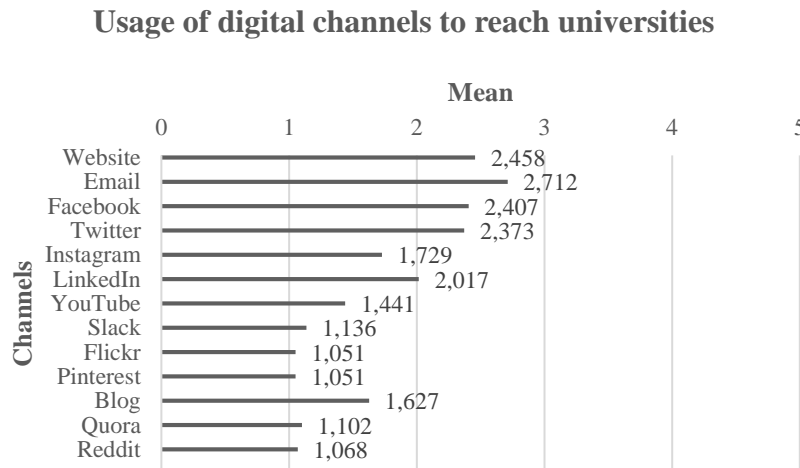


Figure 4.18 – Frequency of using these digital channels to reach universities (mean values).

On one hand, on average organizations use occasionally (1 to 3 times per year) E-mail (2,712), Website (2,458), Facebook (2,407), Twitter (2,373) and LinkedIn (2,017) to reach universities. On the other hand, on average organizations never use Flickr (1,051), Pinterest (1,051), Reddit (1,068) and Quora (1,102) to reach universities.

Table 4.7 - DM channels to reach universities (basic statistics).

DM channels	Mean	Standard deviation	Median
E-mail	2,71	1,26	3
Website	2,46	1,42	2
Facebook	2,41	1,31	2
Twitter	2,37	1,38	2
LinkedIn	2,02	1,28	1
Instagram	1,73	1,27	1
Blog	1,63	1,10	1
YouTube	1,44	0,90	1
Slack	1,14	0,54	1
Quora	1,10	0,48	1
Reddit	1,07	0,31	1
Flickr	1,05	0,29	1
Pinterest	1,05	0,29	1

By observing median values from Table 4.7, most organizations use sometimes (monthly) E-mail to reach universities, and Website, Facebook and Twitter occasionally (1 to 3 times per year) to do so. Finally, most organizations never use Instagram, LinkedIn, YouTube, Slack, Flickr, Pinterest, Blog, Quora and Reddit to reach universities.

4.13.6 Use of digital channels to reach media

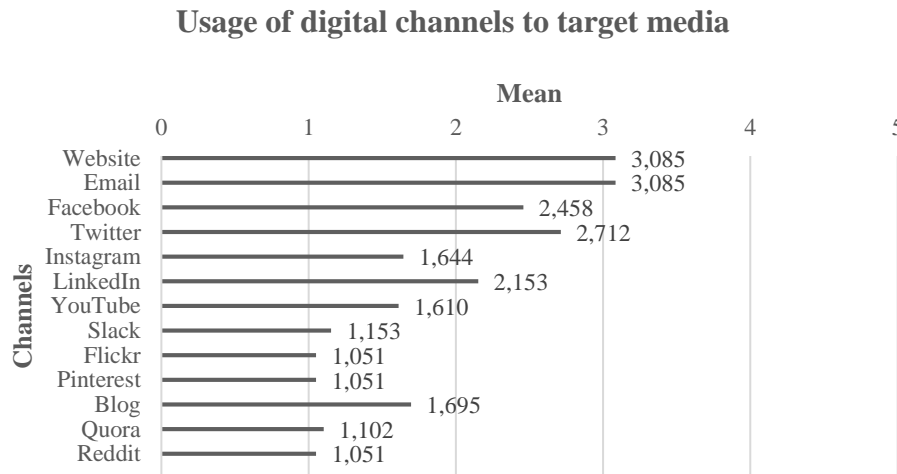


Figure 4.19 – Frequency of using these digital channels to reach media (mean value).

On one hand, on average organizations use sometimes (monthly) Website (3,085), Email (3,085) and Twitter (2,712) to reach the media. On the other hand, on average organizations never use Flickr (1,051), Pinterest (1,051), Reddit (10,051) and Quora (1,102) to reach the media.

Table 4.8 - DM channels to reach media (basic statistics).

DM channels	Mean	Standard deviation	Median
Website	3,08	1,43	3
E-mail	3,08	1,00	3
Twitter	2,71	1,49	3
Facebook	2,46	1,44	2
LinkedIn	2,15	1,34	2
Blog	1,69	1,13	1
Instagram	1,64	1,30	1
YouTube	1,61	0,95	1
Slack	1,15	0,61	1
Quora	1,10	0,48	1
Reddit	1,08	0,47	1
Flickr	1,08	0,47	1
Pinterest	1,07	0,41	1

By observing median values from Table 4.8, most organizations use sometimes (monthly) Website, E-mail and Twitter to reach media, and Facebook and LinkedIn occasionally (1 to 3 times per year) to do so. Finally, most organizations never use Instagram, YouTube, Slack, Flickr, Pinterest, Blog, Quora and Reddit to reach media.

4.14 Digital channels more used by organizations

Figure 4.20 presents which are the digital channels organizations use the most. E-mail (80%), Twitter (64%), Facebook (63%) and Website (51%) are clearly the most used channels by organizations.

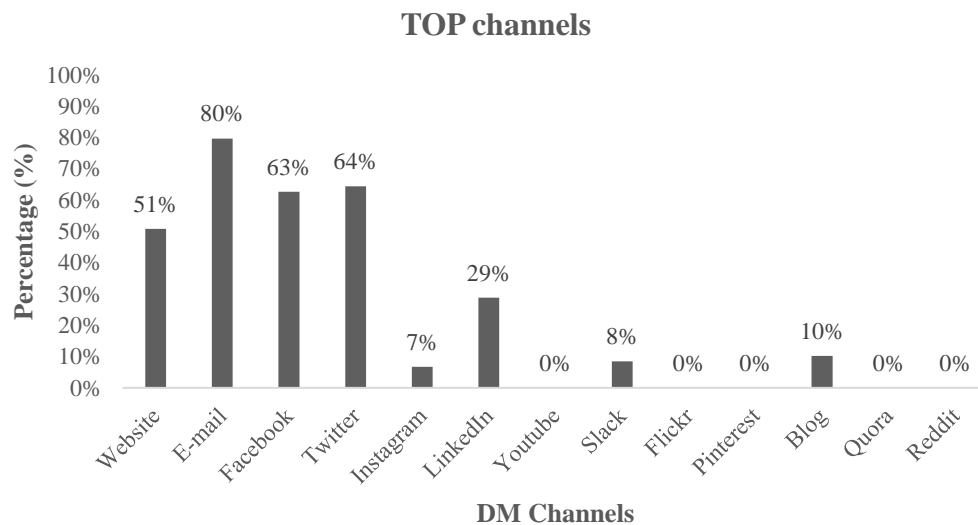


Figure 4.20 - Digital channels more used by organizations.

4.15 E-mail Marketing

In this section, three aspects of E-mail Marketing were explored: its frequency of usage to achieve certain objectives, its Key Performance Indicators (KPIs) and its frequency of strategy evaluation.

4.15.1 E-mail Marketing objectives

Figure 4.21 presents the mean values of the frequency organizations use E-mail Marketing to achieve each one of the below-mentioned objectives.

E-mail Marketing objectives

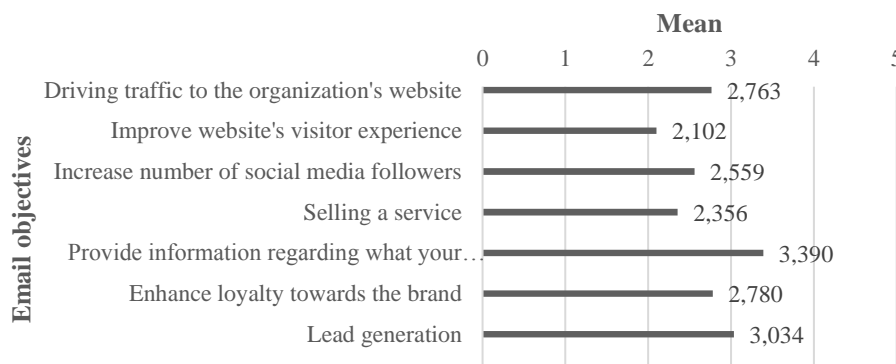


Figure 4.21 - Frequency of using E-mail Marketing to reach these objectives (mean values).

Table 4.9 - E-mail Marketing objectives.

E-mail objectives	Mean	Standard deviation	Median
Provide information regarding what the organization is doing (events, methodologies, ...)	3,39	0,89	3
Lead generation	3,03	1,20	3
Enhance loyalty towards the brand	2,78	1,10	3
Driving traffic to the organization's website	2,76	1,10	3
Increase number of social media followers	2,56	1,10	3
Selling a service	2,36	1,32	2
Improve website's visitor experience	2,10	1,11	2

By observing median values from Table 4.9, most organizations use E-mail Marketing sometimes (monthly) to drive traffic to the organization's website, increase number of social media followers, provide information regarding what they are doing, enhance loyalty towards the brand and generate leads. Most organizations use E-mail Marketing occasionally (1 to 3 times per year) to improve website's visitor experience and to sell a service.

Maximum and minimum values were not relevant when analyzing these values, because all objectives had maximum values of 5 and minimum values of 1, apart from the objective "Driving traffic to the organization's website", which had a maximum value of 4 and minimum of 1.

4.15.2 E-mail Marketing KPIs

Amongst 59 organizations, 42 use E-mail Open rate as a KPI (71%), 34 use the KPI Click-through rate (58%) and 22 use the KPI Conversion rate (37%). Figure 4.22 presents these results.

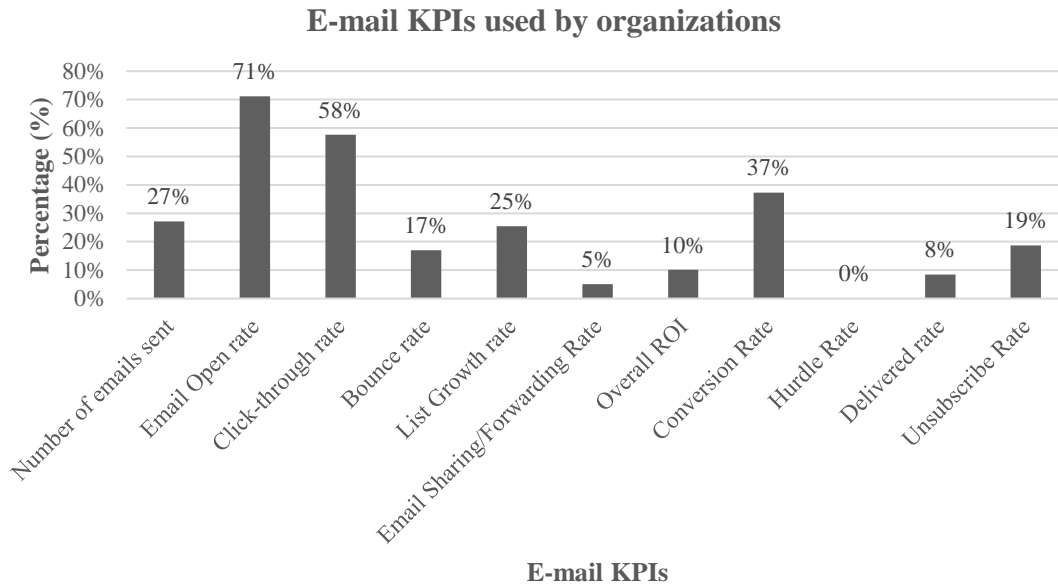


Figure 4.22 - Usage of Key Performance Indicators (KPIs) by organizations.

- *Number of E-mail marketing KPIs*

Amongst 59 organizations, 25 organizations use less than 3 KPIs when doing E-mail marketing (42%), 18 organizations use 3 KPIs (31%) and 16 organizations use more than 3 KPIs (27%). Figure 4.23 presents these results.

Percentage of E-mail Marketing KPIs used per organization

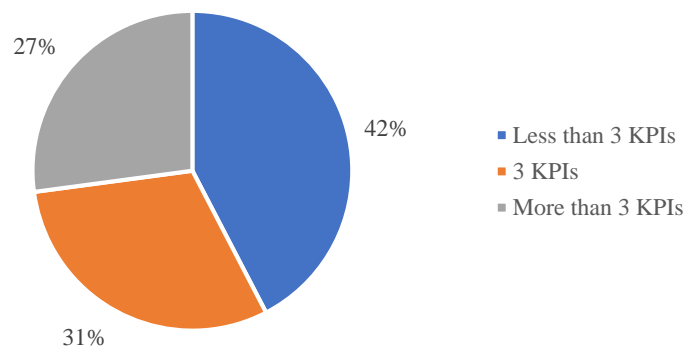


Figure 4.23 - Percentage of E-mail marketing KPIs used by each organization.

4.15.3 E-mail Marketing strategy evaluation

Amongst 59 organizations, 29 organizations evaluate their E-mail Marketing strategy quarterly (49%), 19 organizations evaluate their E-mail Marketing strategy weekly or monthly (32%), and 11 organizations evaluate their E-mail Marketing strategy one to two times per year (19%). Figure 4.24 presents these results.

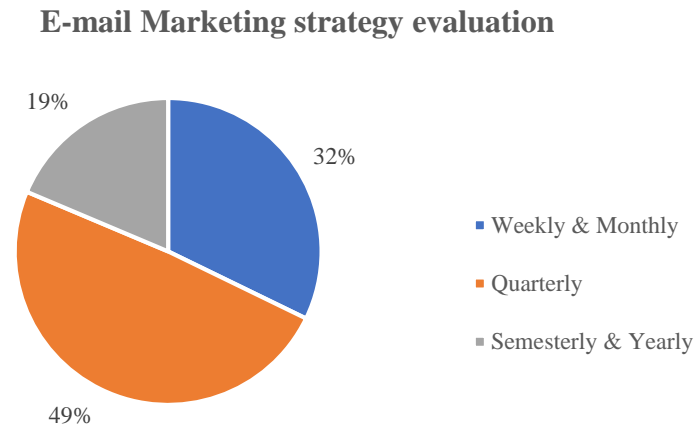


Figure 4.24 - Frequency of evaluation of the E-mail Marketing strategy by organizations.

4.16 Facebook Marketing

In this section, three aspects of Facebook Marketing were explored: its usage to achieve certain objectives, its Key Performance Indicators (KPIs) and its frequency of strategy evaluation.

4.16.1 Facebook Marketing objectives

Figure 4.25 presents an overview of the average scores regarding the frequency organizations use Facebook Marketing to achieve each one of those objectives.



Figure 4.25 - Usage of Facebook marketing to achieve these objectives (mean value).

Table 4.10 - Facebook Marketing objectives.

Facebook objectives	Mean	Standard deviation	Median
Provide information regarding what the organization is doing (events, methodologies, ...)	3,68	1,21	4
Increase number of social media followers	3,44	1,36	4
Driving traffic to the organization's website	3,42	1,32	4
Enhance loyalty towards the brand	3,25	1,50	4
Lead generation	3,12	1,39	3
Improve website's visitor experience	2,64	1,47	3
Selling a service	2,44	1,48	2

By observing median values from Table 4.10, organizations use Facebook Marketing often (weekly) to drive traffic to the organization's website, increase number of social media followers, provide information regarding what the organization is doing and enhance loyalty towards the brand. Organizations use Facebook Marketing sometimes (monthly) to improve website's visitor experience and generate leads. Finally, organizations occasionally (1 to 3 times per year) use Facebook Marketing to sell a service.

Maximum and minimum values were not relevant when analyzing these values, because all objectives had maximum values of 5 and minimum values of 1.

4.16.2 Facebook marketing KPIs

Amongst 59 organizations, 39 use the KPI Engagement (66%), 37 organizations use the KPI Page likes (63%) and 34 organizations use the KPI Post reach (58%). Figure 4.26 presents these results.

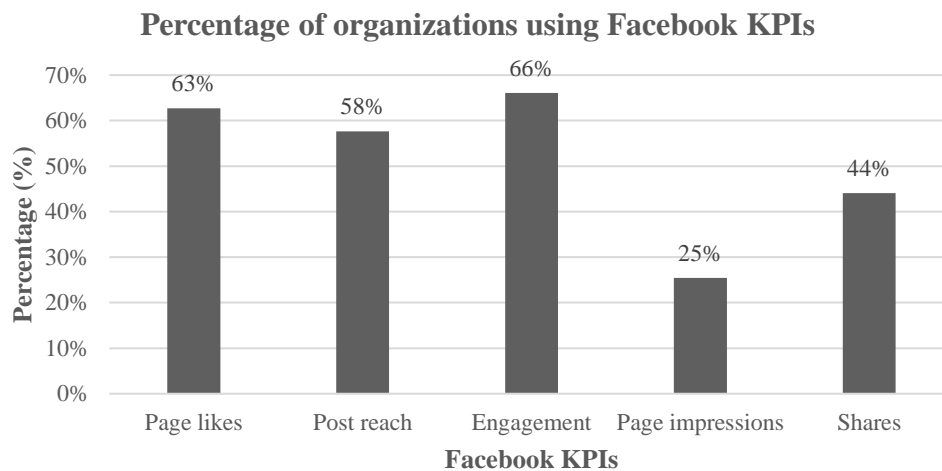


Figure 4.26 - Percentage of organizations using this Facebook KPI.

- *Percentage of Facebook KPIs used by organizations*

Amongst 59 organizations, 32 use 3 or more KPIs when using Facebook marketing (54%), and 27 organizations use less than 3 KPIs when using Facebook marketing (46%). Figure 4.27 presents these results.

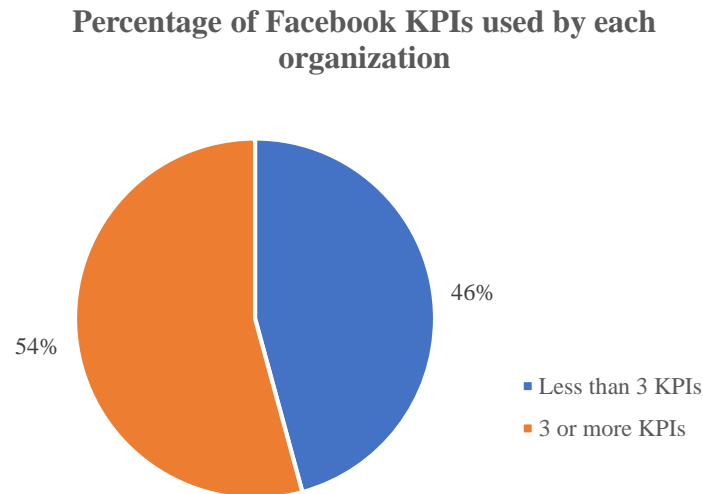


Figure 4.27 -Percentage of KPIs used in Facebook marketing by each organization.

4.16.3 Evaluation of Facebook's marketing strategy

Amongst 59 organizations, 28 evaluate their Facebook's marketing strategy weekly or monthly (47%), 27 organizations do it quarterly (46%), and 4 organizations do it semester or yearly (7%). Figure 4.28 presents these results.

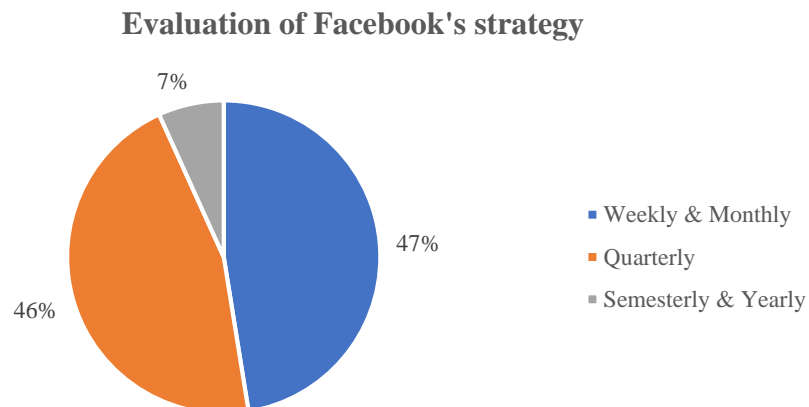


Figure 4.28 - Percentage of Facebook's evaluation strategies pursued by the organizations.

4.17 Twitter Marketing

In this section, three aspects of Twitter Marketing were explored: its usage to achieve certain objectives, its Key Performance Indicators (KPIs) and its frequency of strategy evaluation.

4.17.1 Twitter marketing objectives

Figure 4.29 presents the mean values regarding the frequency organizations use Twitter Marketing to achieve each one of the below-mentioned objectives.

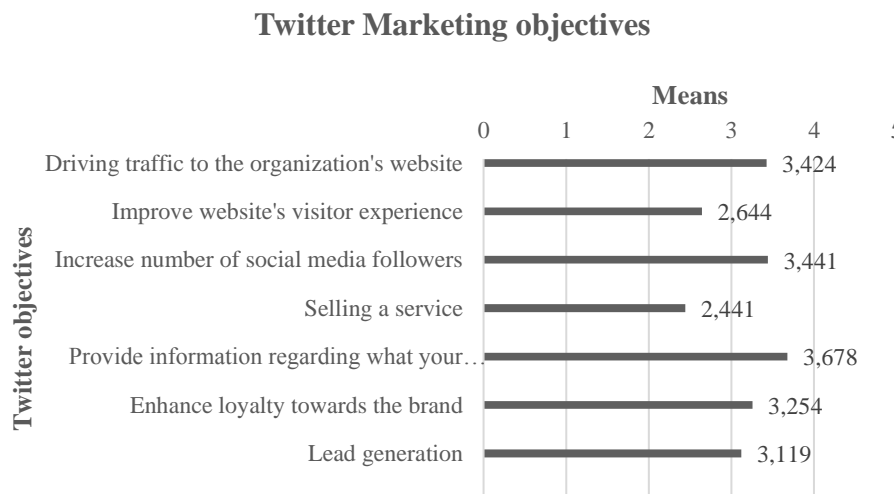


Figure 4.29 - Usage of Twitter marketing to achieve these objectives.

Table 4.11 - Twitter Marketing objectives.

Twitter Objectives	Mean	Standard deviation	Median
Driving traffic to the organization's website	3,49	1,36	4
Provide information regarding what the organization is doing (events, methodologies, ...)	3,47	1,38	4
Increase number of social media followers	3,34	1,53	4
Enhance loyalty towards the brand	3,29	1,51	4
Lead generation	3,05	1,43	3
Selling a service	2,36	1,41	2
Improve website's visitor experience	2,34	1,43	2

By observing median values from Table 4.11, organizations use Twitter Marketing often (weekly) to drive traffic to the organization's website, increase number of social media followers, provide information regarding what the organization is doing and enhance loyalty towards the brand. Organizations use Twitter Marketing sometimes (monthly) to generate leads. Finally, organizations occasionally (1 to 3 times per year) use Twitter Marketing to sell a service and improve website's visitor experience.

Maximum and minimum values were not relevant when analyzing these values, because all objectives had maximum values of 5 and minimum values of 1.

4.17.2 Twitter's Marketing KPIs

Amongst 59 organizations, 42 of them use the Engagement KPI (replies, retweets, likes) when doing Twitter's marketing (71%), 39 of them use the Followers' KPI (66%) and 22 of them use the Mentions' KPI (37%). Figure 4.30 presents these results.

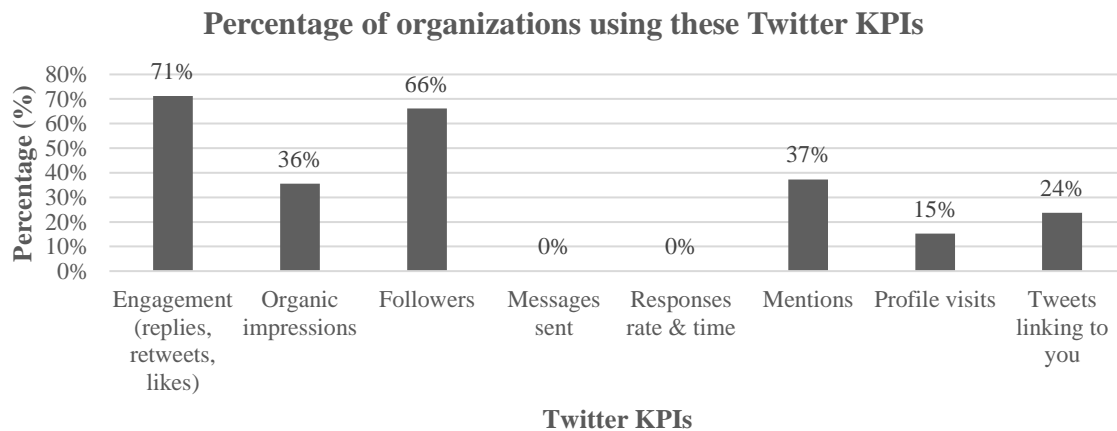


Figure 4.30 - Percentage of Twitter's KPIs used by organizations.

- *Percentage of Twitter's KPIs used by organizations*

Amongst 59 organizations, 29 of them use less than 3 Twitter's KPIs when using Twitter's marketing (49%), and 30 use 3 or more Twitter's KPIs (51%). Figure 4.31 presents these results.

Percentage of Twitter KPIs used by each organization

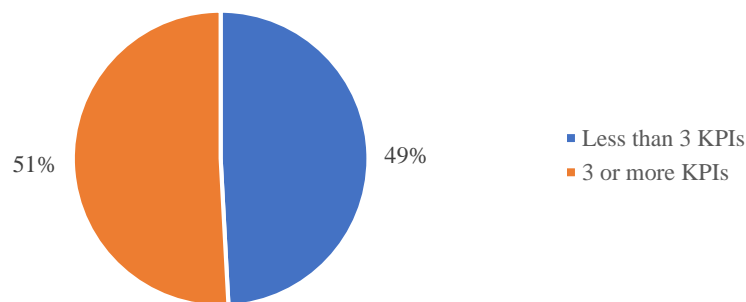


Figure 4.31 - Percentage of Twitter's KPIs used by organizations.

4.17.3 Twitter's evaluation strategy

Amongst 59 organizations, 25 of them evaluate their Twitter's strategy quarterly (42%), 21 of them evaluate it weekly or monthly (36%), and 13 of them never evaluate it or do it yearly (22%). Figure 4.32 presents these results.

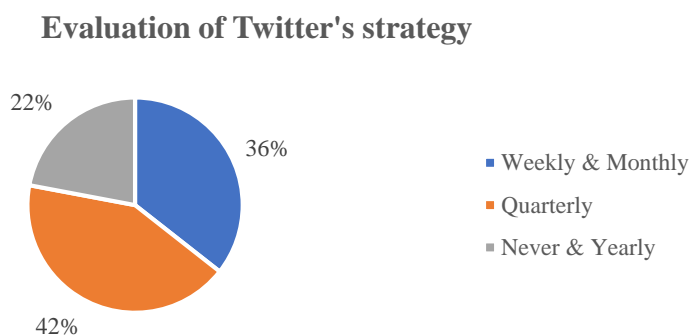


Figure 4.32 - Percentage of organizations types of Twitter's strategies.

4.18 Investment areas

Amongst 59 organizations, 30 of them will invest in social media in 2018 (51%), 27 of them will invest in website design in 2018 (46%), 21 of them will invest in E-mail marketing in 2018 (36%) and 19 of them will invest in Blogs in 2018 (32%). Figure 4.33 presents these results.

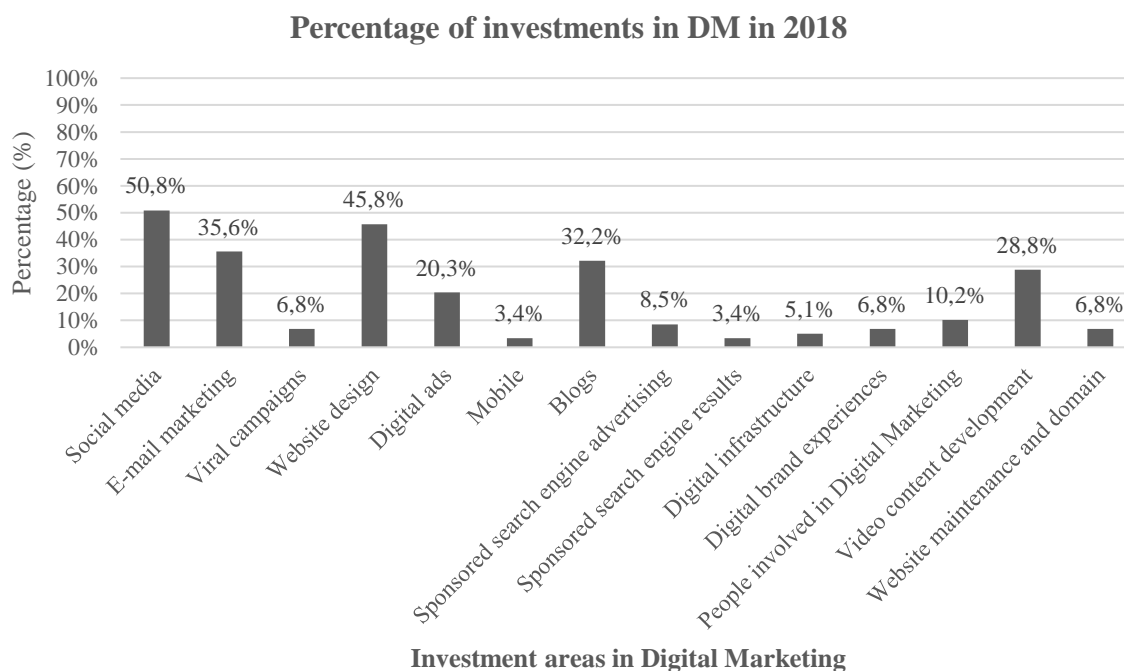


Figure 4.33 - Percentage of investment areas organizations will invest in 2018.

- *Number of investment in 2018 per organization*

Amongst 59 organizations, 42 of them will invest in 2 or less digital areas in 2018 (71%), and 17 of them will invest in more than 2 digital areas in 2018 (29%). Figure 4.34 presents these results.

Percentage of investments that will be done in 2018

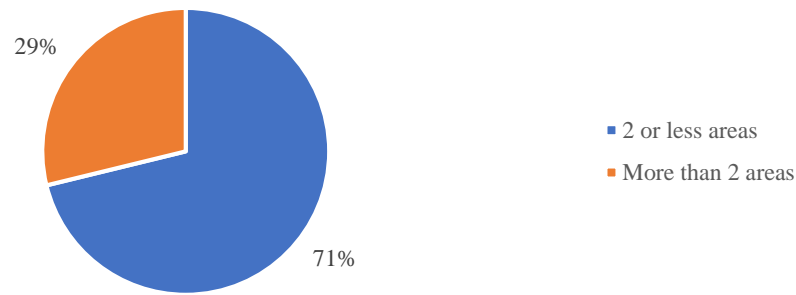


Figure 4.34 - Percentage of number of investments organizations will do in 2018.

Chapter summary:

From the 59 answers analyzed, most organizations were from Europe and North America, from the private sector, running vertical acceleration programs and had 5 or less people working full-time within the accelerator. The objectives accelerators are trying to achieve weekly through DM are: attract quality start-ups, build an entrepreneurship community and drive brand awareness. The digital channels used weekly to reach start-ups are mostly Facebook, Twitter, Website and E-mail, while digital channels used monthly/weekly to reach corporates are Website, E-mail, Twitter and LinkedIn. In general, accelerators classified as their most used channels: E-mail, Twitter, Facebook and Website. The investment areas accelerators are going to invest in 2018 are: social media, website design, e-mail marketing, blogs and video content development.

Chapter 5

Results: Multivariate analysis

Throughout Chapter 5, it is described the statistical procedure followed throughout the dissertation. Kendall's Tau-b coefficient was used to evaluate how strong do variables relate, Kruskal-Wallis significance test was used to verify differences between means, and Principal Component Analysis was used to analyse more in depth the third part of the survey which focused on E-mail, Facebook and Twitter specifically, in order to summarize a high amount of components and thus allowing to interpret relations more easily. Furthermore, a conceptual framework was developed to summarize all the relevant information and help accelerators define their DM strategy.

5.1 Statistical procedure

Even though in the descriptive analysis were used 59 answers (because of its relevance to the accelerator's community), studying correlations and testing differences between means should not be done when a sample has very few answers (in this case, less than 5 answers is not enough). So, instead of 59 answers, 52 were used when doing the statistical analysis, i.e. when studying significant correlations with Kendall's Tau-b coefficient and conducting significance tests on differences between means with Kruskal-Wallis test.

The assumptions followed to choose the answers applicable or not to this part of the study were the following:

- Answers that, when included in a group, corresponded to a sample of less than 5 answers were not considered;
- "N/A" (Not Applicable) answers were not considered;
- Answers such as "dfg" or "1886" that are understood as "dummy data" were not considered;
- Answers such as "Other" were not considered.

Taken into consideration there were different types of data (from qualitative to dichotomous, multiple choice or 5-likert scale), they were simply codified into a dichotomous or 5-likert scale. Afterwards, the relative importance of DM objectives and digital channels was assessed by comparing their mean value.

Acknowledging there was a great amount of answers around certain values, normality tests (Kolmogorov-Smirnov and Shapiro-Wilks) were conducted and, considering 5% critical values, it was verified that data was not Normal. Hence, the non-parametric approach (i.e. not relying on specific variable's distribution) was used in the statistical analysis performed throughout the dissertation.

In order to verify how strong variables related to each other, correlations between variables such as the organization's characteristics, DM objectives and DM channels were studied at a 5% and 10% significance level. To do so, Kendall's Tau-b correlation coefficient was used because it is a non-parametric measure of the correlation between two ranked variables taking also into account the ties in the data. Correlation values vary from -1 (negative association, i.e., when X is increasing, Y is decreasing) and +1 (positive association, i.e., when X is increasing, Y is increasing). A value of zero means there is no association between variables, which is also a result.

Besides computing Kendall's Tau-b, the Fisher's Exact Test was also calculated because it is a statistical test that verifies independence between variables existing in a contingency table. Results from the latter not always supported those found with Kendall's Tau-b, enhancing how hard it was to analyse the data of the survey. Notwithstanding, the results on association reported by employing Kendall's Tau-b test were in general reinforced by other tests.

Whenever possible, differences between means were assessed with Kruskal-Wallis non-parametric test, because it allows to compare more than two independent samples. Most of the analysis focused on the two-sample case, thereby using the known Mann-Whitney U test. ANOVA could not be used because it assumes data is Normally distributed and approximately equal variance on the scores across groups. Kruskal-Wallis test is a rank-based non-parametric test that can be used to verify if means between different variables are statistically different or not. This test allowed to verify, according to the characteristics of accelerators, if they were valuing equally a certain objective or digital channel, i.e., if the frequency they were using DM to reach a certain objective or the frequency using a digital channel to reach a certain target audience was varying, according to location, nature of the accelerator, number of people working full-time or other characteristics.

Principal Components Analysis (PCA) followed from the correlations amongst variables, meaning that when the rating of variables followed a related pattern, then a larger set of variables could be summarized by a smaller number of components. Indeed, DM objectives and E-mail objectives were able to be summarized into three components, and Facebook and Twitter objectives were summarized into two components. The larger number of components obtained for DM objectives and E-mail marketing mean that

the rating pattern by accelerators on the different objectives does distinguish more components than for the case of Facebook and Twitter objectives.

When applying PCA to the defined variables, it was necessary to mathematically rotate the extracted factors so that the interpretation of the results would be simplified. SPSS software out of default does not rotate the factors. For the purposes of this research, “Varimax” was the rotation chosen. This is an orthogonal rotation method that minimizes the number of fields with high loadings on each factor. Orthogonal rotations assume factors are not correlated and allow to verify which weight each factor has in each component.

Note that the PCA analysis and conceptual framework developed at the end of this chapter took into consideration the 59 answers so the results would be the closest to reality as possible.

5.2 Kendall’s Tau-b coefficient: correlations results

To assess how strong some variables relate, Kendall’s Tau-b coefficient was calculated. In Appendix III, are presented all correlations verified between the characteristics of the accelerators and variables that characterize the frequency DM is used to achieve certain objectives, as well as correlations between the characteristics of the accelerators and variables that identify the frequency of usage of digital channels to reach certain target audiences. Bear in mind that “regularly” means daily, “often” means weekly, “sometimes” means monthly, and “occasionally” means 1 to 3 times per year.

From the significant correlations obtained, some are particularly important to highlight as:

- Location of accelerators (Portugal, Europe, North America, Asia & Oceania, Middle-East & Africa) is:
 - Negatively correlated with the number of investments in digital areas (at a 10% significance level). This means that accelerators located in Portugal, the rest of Europe and North America tend to invest in 3 or more digital areas in 2018, while accelerators located in Asia & Oceania and Middle-East & Africa tend to invest in 2 or less digital areas in 2018.
 - Negatively correlated with the number of social media networks used regularly/often to reach media (at a 10% significance level). This means that accelerators from Europe and North America tend to use one or more social media networks daily/weekly to reach media channels, while accelerators from Asia & Oceania and Middle-East & Africa tend to use no social media network daily/weekly to reach them.

- The nature of the accelerators (private or public sector) is:
 - Positively correlated with the number of social media networks used regularly/often to reach media (at a 10% significance level). This means that Public accelerators tend to use one or more social networks daily/weekly to reach the media, while Private accelerators tend to use no social media network daily/weekly to reach the media.
- The number of acceleration programs being run by accelerators (one program or two programs) is:
 - Negatively correlated with the usage of E-mail to reach corporates (at a 10% significance level). This means accelerators running one acceleration program tend to use E-mail daily/weekly to reach corporates, while accelerators running two acceleration programs tend to use E-mail never or occasionally to reach corporates.
 - Negatively correlated with the number of Twitter KPIs used. This means that accelerators running one acceleration program tend to use 3 or more Twitter KPIs, while accelerators running two acceleration programs tend to use 2 or less Twitter KPIs.
- The number of people working full-time within the accelerator (5 or less people, or more than 5) is:
 - Positively correlated with the usage of DM to “Drive brand awareness”. This means that accelerators with more than 5 people working full-time tend to use daily/weekly DM to drive brand awareness, while accelerators with 5 or less people working full-time tend to never/occasionally use DM to drive brand awareness.
 - Positively correlated with the usage of DM to “Attract quality start-ups”. This means that accelerators with more than 5 people working full-time tend to use daily/weekly DM to attract quality start-ups, while accelerators with 5 or less people working full-time tend to never/occasionally use DM to attract quality start-ups.
 - Positively correlated with the usage of Facebook, LinkedIn, Blog, Quora and Reddit to reach start-ups. This means that accelerators with more than 5 people working full-time tend to use these channels daily to reach start-ups, while accelerators with 5 or less people working full-time tend to never use or use occasionally these channels to reach start-ups.
 - Positively correlated with the usage of Website, Facebook, Twitter, LinkedIn, Instagram and Blog to reach corporates. This means that accelerators with more than 5 people working

full-time tend to use daily these channels to reach corporates, while accelerators with 5 or less people working full-time tend to never use or use them occasionally to reach corporates.

- Positively correlated with the usage of LinkedIn, Quora and Reddit to reach investors. This means that accelerators with more than 5 people working full-time tend to use daily these channels to reach investors, while accelerators with 5 or less people working full-time tend to never use them or use them occasionally to reach investors.
- Positively correlated with the number of social media networks used regularly/often to reach start-ups. This means that accelerators with more than 5 people working full-time tend to use 4 social media networks regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use 2 or less social media networks regularly/often to reach start-ups.
- Positively correlated with the number of social media networks used regularly/often to reach corporates. This means that accelerators with more than 5 people working full-time tend to use 2 or more social networks daily/weekly to reach corporates, while accelerators with less than 5 people working full-time tend to use no social media network daily/weekly to reach corporates.
- Positively correlated with the number of E-mail KPIs used. This means that accelerators with more than 5 people working full-time tend to use 3 or more E-mail KPIs, while accelerators with less than 5 people working full-time tend to use 2 or less E-mail KPIs.

5.3 Kruskal-Wallis test: significant results

Kruskal-Wallis test helped verifying if there were statistically significant differences between mean values of the characteristics of the accelerators and DM objectives, and between mean values of the characteristics of the accelerators and digital channels used. The most relevant results (at a 5% and 10% significance level) are below, as well as the correspondent meaning. The remaining results can be found in Appendix IV.

5.3.1 Results: DM objectives

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the organization (private sector) and “Drive brand awareness”*

At a 5% significance level, private accelerators with 5 or less people working full-time and private accelerators with more than 5 people working full-time value significantly differently the frequency of using DM to “drive brand awareness”.

- *Number of acceleration programs (one or two programs), number of people working full-time (5 or less people vs more than 5 people) and “Attract quality start-ups”*

At a 10% significance level, accelerators with one acceleration program with 5 or less people working full-time value significantly differently from accelerators with two acceleration programs with more than 5 people working full-time the frequency of using DM to “attract quality start-ups”.

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the organization (private sector) and “Attract quality start-ups”*

At a 5% significance level, private accelerators with 5 or less people working full-time value significantly differently from private accelerators with more than 5 people working full-time the frequency of using DM to “attract quality start-ups”.

- *Number of people working full-time (5 or less people vs more than 5 people), location (Europe) and “Attract quality corporates”*

At a 5% significance level, European accelerators with 5 or less people working full-time and European accelerators with more than 5 people working full-time value significantly differently the frequency of using DM to “attract quality corporates”.

5.3.2 Results: digital channels

- *Location of the organization (Europe or North America), nature of the organization (private sector) and “Website to reach start-ups”*

At a 5% significance level, private accelerators from Europe and North America value significantly differently the frequency of using Website to reach out start-ups.

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the organization (private sector) and “Facebook to reach start-ups”*

At a 5% significance level, private accelerators with 5 or less people working full-time and private accelerators with more than 5 people working full-time value significantly differently the frequency of using Facebook to reach out start-ups.

- *Nature of the acceleration program (general or vertical acceleration program), nature of the organization (private sector) and “LinkedIn to reach start-ups”*

At a 5% significance level, private accelerators running general or vertical acceleration programs value significantly differently the frequency of using LinkedIn to reach out start-ups.

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the organization (private sector) and “LinkedIn to reach start-ups”*

At a 5% significance level, private accelerators with 5 or less people working full-time and private accelerators with more than 5 people working full-time value significantly differently the frequency of using LinkedIn to reach out start-ups.

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the organization (private sector) and “Website to reach corporates”*

At a 5% significance level, private accelerators with 5 or less people working full-time and private accelerators with more than 5 people working full-time value significantly differently the frequency of using Website to reach out corporates.

- *Number of acceleration programs (one or two programs), number of people working full-time within the organization (more than 5 people) and “E-mail to reach corporates”*

At a 5% significance level, accelerators with more than 5 people working full-time and running one acceleration program value significantly differently from accelerators with more than 5 people working full-time and running two acceleration programs the frequency of using E-mail to reach out corporates.

- *Number of people working full-time (5 or less people vs more than 5 people), nature of the acceleration program (vertical program) and “Twitter to reach corporates”*

At a 5% significance level, vertical accelerators with 5 or less people working full-time and vertical accelerators with more than 5 people working full-time value significantly differently the frequency of using Twitter to reach corporates.

5.4 Principal Component Analysis (PCA)

Principal Component Analysis (PCA) is a data reduction technique that creates components/factors that allows to interpret large series of data in a small number of components that can be meaningfully interpreted. In this research, PCA was applied to DM objectives, E-mail objectives, Facebook objectives and Twitter objectives, because they were not enough explored and all of them had too many variables to handle, which would make it harder to extract valuable conclusions from them. The results obtained were as follows.

5.4.1 PCA: Digital Marketing objectives

From the 11 objectives of DM objectives, they were grouped into 3 major components, which explain 69,28% of the results, as presented in Table 5.1. The first component explains the majority of the results (26,53%), the second component explains 23,18% of the results and the third component explains 19,87% of the results. These results have a Kaiser-Meyer-Olkin Measure of sampling adequacy of 0,86, which means that the factors are well grouped and these 3 components can be used to explain all DM objectives without losing relevant information.

Table 5.1 - Variance explained of “DM Objectives”.

Component	Total Eigenvalue (rotation sums of squared loadings)	% of Variance (rotation sums of squared loadings)
1	2,92	26,53
2	2,55	23,18
3	2,19	19,87

Table 5.2 presents the DM objectives that were included in each one of the three components. The first component includes “Provide relevant content to corporates and investors”, “Provide online support”, “Support decision-making process”, “Crowdsourcing” and “Competition follow-up”. The second

component includes “Attract successful influencers”, “Attract quality corporates” and “Attract quality investors”. The third component includes “Drive brand awareness”, “Attract quality start-ups” and “Build an entrepreneurship community”. Note also that each component has mean 0 and variance 1.

Table 5.2 - Components structure of “DM objectives”.

Rotated Component Matrix^a			
	Component		
	1	2	3
OBJ_BRAND	,155	,048	,806
OBJ_STARTUP	,146	,345	,680
OBJ_COMMUNITY	,390	,279	,644
OBJ_CONTENT	,573	,283	,389
OBJ_INFLUENCERS	,188	,793	,097
OBJ_ON_SUPPORT	,755	-,065	,476
OBJ_CORPORATES	,265	,752	,405
OBJ_INVESTORS	,266	,843	,194
OBJ_DECISION	,817	,257	,201
OBJ_CROWDSOURCING	,644	,437	,019
OBJ_FOLLOW_UP	,750	,324	,171

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 5.3 presents the different meanings given to each component. The first component includes objectives understood as secondary DM resources to help building up brand’s image. The second component includes objectives regarding the use of DM to reach new brand partners (i.e. increase the brand’s network). The third and final component includes objectives that help get brand’s recognition. The mean values of each component presented in Table 5.3 are arithmetic means, based on the means of the objectives included in each one of the three components.

Table 5.3 - Reduced component’s meaning.

Component	Meaning	Mean
1	Secondary resources to help image building up	2,90
2	Get network partners	2,99
3	Brand recognition	3,95

Figure 5.1 presents a visual representation of how accelerators value components one and three, labeled according to the number of investments they will make in digital areas in 2018. In Figure 5.1, zero means

accelerators will invest in two or less digital areas, and one means they will invest in three or more digital areas. Accelerators investing in two or less digital areas tend to use more often DM to achieve objectives from component three (“brand recognition”) rather than component one (“secondary resources to help image building up”).

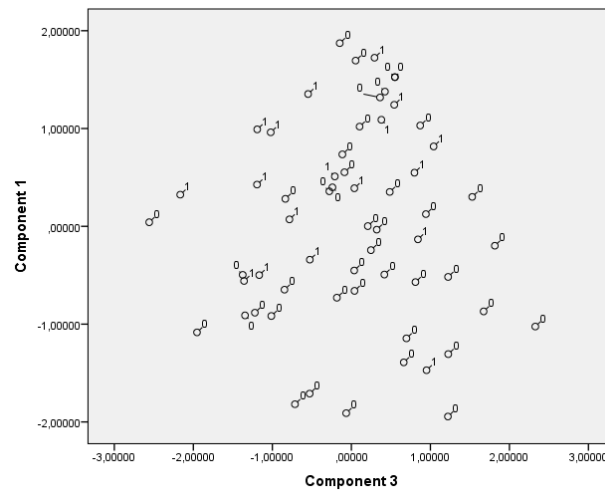


Figure 5.1 - DM objectives patterns according to number of investments in digital areas in 2018: ‘secondary resources to help image build-up’ VS ‘brand recognition’.

Figure 5.2 presents a visual representation of how accelerators value components one and two, labeled according to the number of investments they will make in digital areas in 2018. In Figure 5.2, zero means accelerators will invest in two or less digital areas, and one means they will invest in three or more digital areas. Accelerators investing in two or less digital areas seem to use more often DM to achieve objectives from component two (“get network partners”) rather than component one.

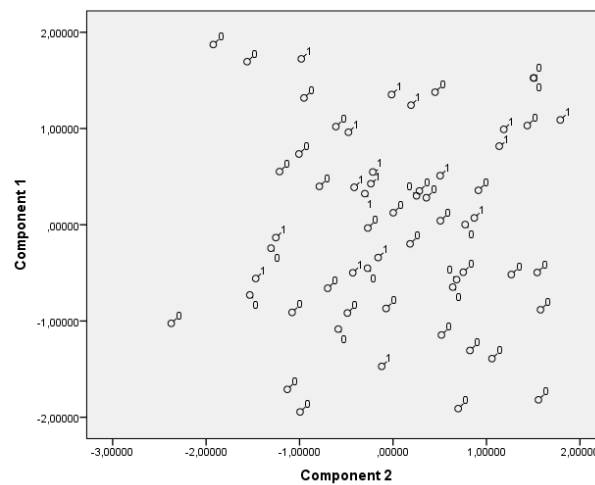


Figure 5.2 DM objectives patterns according to number of investments in digital areas in 2018: ‘get network partners’ VS ‘secondary resources to help image build-up’.

Bear in mind that comparing Component 2 and Component 3 did not provide relevant results, being that the reason why its graphic is not shown and this situation was not analyzed.

5.4.2 PCA: E-mail marketing objectives

From the seven E-mail marketing objectives included in the survey, PCA analysis allowed to group them into 3 components, which explain 76,93% of the results, as presented in Table 5.4. The first component explains the majority of the results (34,84%), the second component explains 23,38% of the results and the third component explains 18,70% of the results. The results have a Kaiser-Meyer-Olkin Measure of sampling adequacy of 0,82, which means that the factors are well grouped and these 3 components can be used to explain all E-mail marketing objectives without losing relevant information.

Table 5.4 - Variance explained of “E-mail marketing Objectives”.

Component	Total Eigenvalue (rotation sums of squared loadings)	% of Variance (rotation sums of squared loadings)
1	2,44	34,84
2	1,64	23,38
3	1,31	18,70

Table 5.5 presents the E-mail marketing objectives included in each one of the 3 components. The first component includes “Drive traffic to the organization’s website”, “Improve website’s visitor experience”, “Increase the number of followers” and “Enhance loyalty towards the brand”. The second component includes “Provide information regarding the organization (events, methodologies...)” and “Lead generation”. The third component includes “Sell a service”. Note also that each component has mean 0 and variance 1.

Table 5.5 - Components structure of “E-mail marketing objectives”.

Rotated Component Matrix^a			
	Component		
	1	2	3
EMAIL_OBJ_TRAFFIC	,692	,065	,551
EMAIL_OBJ_VISITOR_EXP	,786	,216	,259
EMAIL_OBJ_FOLLOWERS	,826	,164	,006
EMAIL_OBJ_SERVICE	,108	,241	,902
EMAIL_OBJ_INFO	,149	,912	,111
EMAIL_OBJ_LOYALTY	,718	,474	,090
EMAIL_OBJ_LEAD	,336	,667	,323

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 5 iterations.

Table 5.6 presents the different meanings given to each component. The first component includes factors that help the organization getting traction through e-mail marketing. The second component includes factors to help building up the organization’s brand. The third and final component includes a factor used to provide a service through e-mail. The mean values of each component presented in Table 5.6 are arithmetic means, based on the means of each objective included in each one of the three components.

Table 5.6 - Meaning of each component.

Component	Meaning	Mean
1	How to get traction through e-mail	2,58
2	Help image build-up	3,23
3	Provide a service through e-mail	2,38

Figure 5.3 presents a visual representation of how accelerators value components one and two, labeled according to the frequency of evaluating E-mail’s marketing strategy. In Figure 5.3, values 0, 1, 2 and 3 mean, respectively, that accelerators evaluate their E-mail strategy weekly, monthly, quarterly and semesterly/yearly. Accelerators evaluating their E-mail marketing strategy monthly tend to use E-mail equally to achieve objectives from both components one (“how to get traction through e-mail”) and two (“help image build-up”).

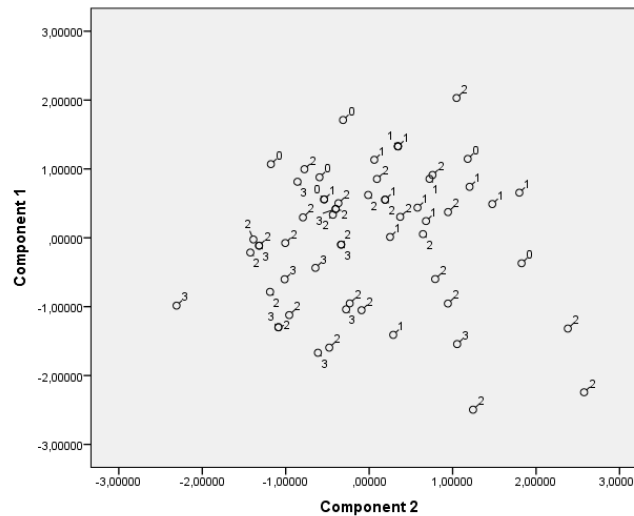


Figure 5.3 E-mail objectives patterns according to the frequency of evaluating E-mail’s marketing strategy: ‘how to get traction through e-mail’ VS ‘help image build-up’.

Figure 5.4 presents a visual representation of how accelerators value components one and three, labeled according to the frequency of evaluating E-mail's marketing strategy. In Figure 5.4, values 0, 1, 2 and 3 mean, respectively, that accelerators evaluate their E-mail strategy weekly, monthly, quarterly and semesterly/yearly. Accelerators evaluating their E-mail marketing strategy quarterly tend to use more DM to achieve objectives from component three ("provide a service through e-mail") than from component one.

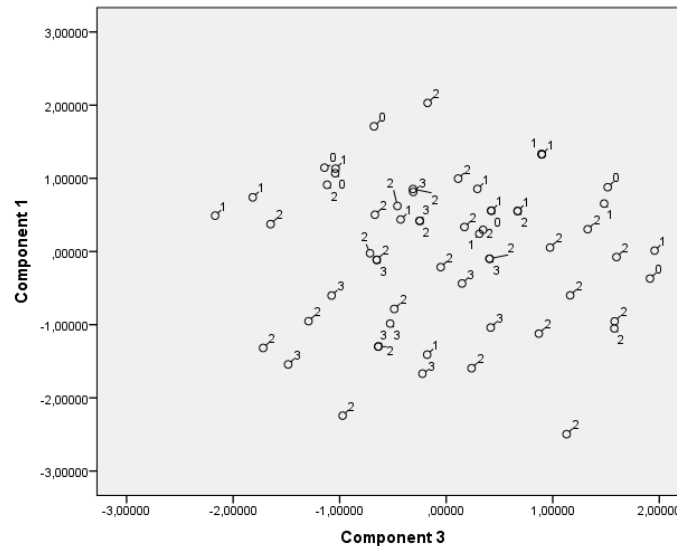


Figure 5.4 - E-mail objectives patterns according to the frequency of evaluating E-mail's marketing strategy: 'how to get traction through e-mail' VS 'provide a service through e-mail'.

Bear in mind that comparing Component 2 and Component 3 did not provide relevant results, being that the reason why its graphic is not shown and this situation was not analyzed.

5.4.3 PCA: Facebook objectives

From the seven Facebook marketing objectives included in the survey, PCA analysis allowed to group them into 2 components, which explain 77,40% of the results, as presented in Table 5.7. The first component explains the majority of the results (41,47%) and the second component explains 35,93% of the results. The results present a Kaiser-Meyer-Olkin Measure of sampling adequacy of 0,87, which means that these two components can be used to explain all Facebook marketing objectives without losing relevant information.

Table 5.7 - Variance explained of "Facebook marketing Objectives".

Component	Total Eigenvalue (rotation sums of squared loadings)	% of Variance (rotation sums of squared loadings)
1	2,90	41,47
2	2,52	35,93

Table 5.8 shows which objectives are included in each one of the 2 components. The first component includes “Improve website’s visitor experience”, “Enhance loyalty towards the brand” and “Lead generation”. The second component includes “Drive traffic to the organization’s website”, “Increase the number of followers”, “Provide a service” and “Provide information regarding the organization (events, methodologies ...)”. Note also that each component has mean 0 and variance 1.

Table 5.8 - Components structure of “Facebook marketing objectives”.

Rotated Component Matrix^a		
	Component	
	1	2
FB_OBJ_TRAFFIC	,541	,672
FB_OBJ_VISITOR_EXP	,867	,098
FB_OBJ_FOLLOWERS	,627	,662
FB_OBJ_SERVICE	,064	,913
FB_OBJ_INFO	,543	,710
FB_OBJ_LOYALTY	,840	,311
FB_OBJ_LEAD	,678	,426

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.^a

a. Rotation converged in 3 iterations.

Table 5.9 presents the different meanings given to each component. The first component includes factors to help building up the organization’s brand. The second component includes factors to help the organization getting traction through Facebook. The mean values of each component presented in Table 5.9 are arithmetic means, based on the means of each objective included in each one of the two components.

Table 5.9 - Meaning of each Facebook’s objectives component.

Component	Meaning	Mean
1	Help image build-up	3,01
2	How to get traction through Facebook	3,26

Figure 5.5 presents a visual representation of how accelerators value these two components depending on the frequency of evaluating Facebook’s marketing strategy. In Figure 5.5, values 0, 1, 2 and 3 mean, respectively, that accelerators evaluate their E-mail strategy weekly, monthly, quarterly and yearly/never. Accelerators evaluating their Facebook marketing strategy quarterly seem to use more Facebook to achieve

objectives from component one (“help image build-up”) rather than component two (“how to get traction through Facebook”).

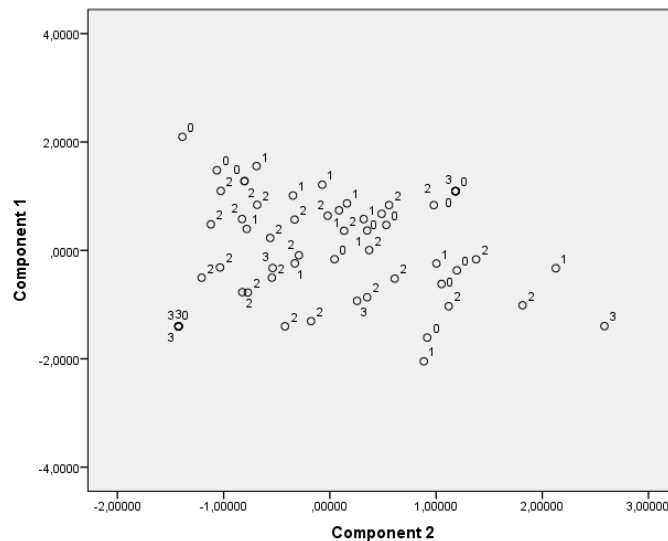


Figure 5.5 - Facebook objectives patterns according to the frequency of evaluation Facebook’s marketing strategy.

5.4.4 PCA: Twitter objectives

From the seven Twitter marketing objectives included in the survey, they were grouped into 2 components, which explain 77,74% of the results, as presented in Table 5.10. The first component explains the majority of the results (46,41%) and the second component explains 31,33% of the results. The results present a Kaiser-Meyer-Olkin Measure of sampling adequacy of 0,90, which means these 2 components can be used to explain all Twitter marketing objectives without losing relevant information.

Table 5.10 - Variance explained of “Twitter marketing Objectives”.

Component	Total Eigenvalue (rotation sums of squared loadings)	% of Variance (rotation sums of squared loadings)
1	3,248	46,406
2	2,193	31,330

Table 5.11 shows which objectives are included each one of the 2 components. The first component includes “Drive traffic to the organization’s website”, “Increase the number of followers”, “Provide a service”, “Provide information regarding the organization (events, methodologies ...)” and “Lead generation”. The

second component includes “Improve website’s visitor experience” and “Enhance loyalty towards the brand”. Note also that each component has mean 0 and variance 1.

Table 5.11 - Components structure of “Twitter marketing objectives”.

Rotated Component Matrix ^a		
	Component	
	1	2
TWITTER_OBJ_TRAFFIC	,833	,337
TWITTER_OBJ_VISITOR_EXP	,152	,882
TWITTER_OBJ_FOLLOWERS	,734	,502
TWITTER_OBJ_SERVICE	,837	,102
TWITTER_OBJ_INFO	,795	,476
TWITTER_OBJ_LOYALTY	,508	,709
TWITTER_OBJ_LEAD	,634	,557

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 3 iterations.

Table 5.12 presents the different meanings given to each component. The first component includes factors to help the organization getting traction through Twitter. The second component includes factors that help building up the organization’s brand. The mean values of each component presented in Table 5.12 are arithmetic means, based on the means of each objective included in each one of the two components.

Table 5.12 - Meaning of each Twitter’s objectives component.

Component	Meaning	Mean
1	How to get traction through Twitter	3,13
2	Help image build-up	2,80

Figure 5.6 presents a visual representation of how accelerators value these two components depending on the frequency of evaluating Twitter’s marketing strategy. In Figure 5.6, values 0, 1, 2 and 3 mean, respectively, that accelerators evaluate their E-mail strategy weekly, monthly, quarterly and with another frequency. Accelerators evaluating their Twitter marketing strategy quarterly tend to use more Twitter to achieve objectives from both components one (“how to get traction through Twitter”) and two (“help image build-up”).

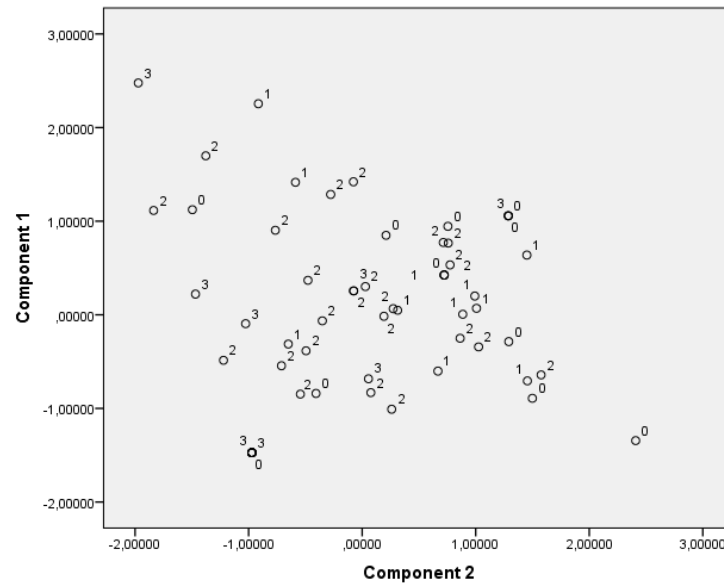


Figure 5.6 - Twitter objectives patterns according to the frequency of evaluating Twitter's marketing strategy.

5.5 Conceptual framework emerged from empirical results

According to Ravitch and Riggan (2012), a conceptual framework can be compressed into three different meanings:

- It can be a simple visual representation (of theoretical principles); usually included in the literature review;
- It can be called theoretical framework when is strictly based on theoretical definitions, arising the problem of framework's previous reliability;
- It can be a way of linking all elements of a research process.

The present conceptual framework is based on this last concept. In order to comprise the broader concept of which are the most relevant digital channels for start-up accelerators nowadays according to their characteristics, DM objectives and channels used to reach out a certain audience, it was developed a conceptual framework which summarizes the main results achieved throughout this research.

5.5.1 Structure of the conceptual framework

After doing the literature review and obtaining a high amount of results coming from the survey conducted, it was decided to elaborate a framework that would summarize all the information, and give an actual portrait of the DM landscape in the accelerator's community so that accelerators can learn from each other and even

try others strategy. The framework elaborated has three distinct levels, which are presented in the Figure 5.7.

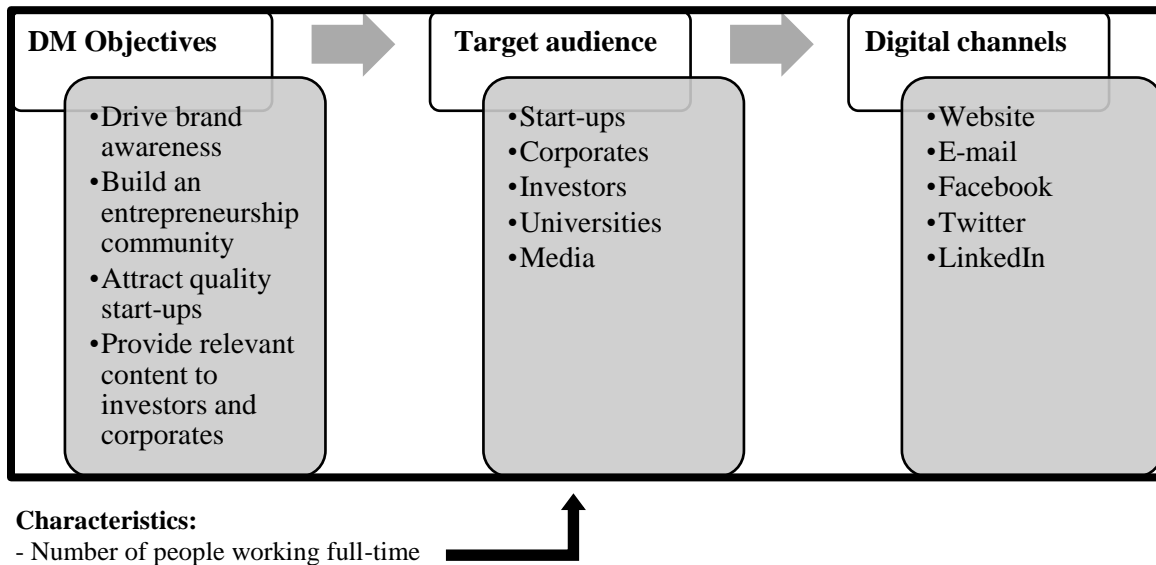


Figure 5.7 - Macro conceptual model of the process followed throughout the research.

Considering the DM objectives, four objectives stood out when analysing their correlations and mean values.

The first one is “Drive brand awareness”, used to propagate accelerator’s brand in the marketplace and to make sure people are aware of its mission and values. Driving brand awareness can be done through impressive content, infographics, local partnerships, freebies (free merchandising for instance), social media contests, pro storytelling or web podcasts.

The second objective is “building an entrepreneurship community”, which can be done through free and easy-to-access events (conferences, workshops, web seminars, ...) created to celebrate entrepreneurs, to connect stakeholders inside and outside of the entrepreneurship community and to facilitate collaboration in all ways possible.

The first and second objectives are intimately connected, once the accelerator’s brand is also being promoted when there is an event. However, the first one aims to make the accelerator’s brand recognized as a player in its ecosystem (just like Coca-Cola or Nike are the first brands that pop your mind when you talk about “soda” or “shoes”), and the second one regards to the powerful accelerator’s network which gives people access to talented entrepreneurs, investors, corporates, mentors, service providers, and much more.

The third objective is “attract quality start-ups” which involves all content provided in the organization’s web page and social networks and also attending events (conferences, workshops, ...) to do start-up scouting.

The fourth and final objective is “provide relevant content to corporates and investors”, which includes sharing content that the audience wants to know about. Here, not only following corporate and investors’ steps in social media is important, but also through e-mail which is one of the most powerful tools in marketing that will allow the organization to anticipate which content is the audience more excited to hear about.

Considering the different stakeholders, five were encountered to be significantly relevant: start-ups, corporates, investors, universities and media. It was not found any relevant correlation between different objectives and channels used to reach out the government, which means that DM to reach out this kind of audience does not depend upon any objective or characteristic of the accelerator in particular, it is done whenever it is necessary.

Considering the different digital channels analysed in the survey, the more significant ones were the following: Website, E-mail, Facebook, Twitter and LinkedIn. These channels’ characteristics were previously explained in Chapter 2.

Based on the macro conceptual model from Figure 5.5, two micro conceptual models were elaborated according to the significant variables obtained from the multivariate analysis and according to the control variable that showed a higher and positive Kendall’s tau-b correlation value: the number of people working full-time.

5.5.2 Conceptual framework

The conceptual framework hereby presented aims to summarize the main insights from this research, as a way to provide a global picture of how is DM amongst accelerators being handled nowadays. As referred before, the framework possesses different layers: DM objectives, target audience and digital channels.

Firstly, the accelerator should choose the DM objective(s) to achieve. It should be taken into consideration what its mission is, as well as which vision and values best describe the accelerator. To reach these goals, using a SWOT analysis will probably help in defining their vision in the nearest future.

The second layer regards to defining who the accelerators are trying to reach out. It can go from start-ups to corporates, investors, universities or media. The target audience chosen depends on the DM objectives of the accelerator (vision, mission, values ...), in order to be able to deliver the right message to the right person. This is why it is also important to have a broader vision of how is the target audience acting on the digital world: active presence, access to digital devices (mobiles, computers, iPads...), time spent on digital devices, personal interests and so on.

The third layer are the channels used to reach the target audience (and consequently the DM objectives). These can go from the most traditional channels (e.g. Website and E-mail) to social media networks (e.g. Facebook, Twitter, LinkedIn ...) or online forums (e.g. Blog).

After having structured how the conceptual framework would look like, to decide which objectives and channels would be included some criteria needed to be defined. The results presented in the conceptual framework were based in three main criteria:

- There are 4 DM objectives, which were chosen based on its mean values: when an objective had a mean value of 4 it was used. The only exception was “provide relevant content to corporates and investors”, which was classified as 3 but considered to be a relevant objective when talking with marketing managers from accelerators. Moreover, only the answers scored by accelerators as 3, 4 and 5 (monthly, weekly and daily, respectively) were used.
- The digital channels were chosen based on the mean values obtained from the univariate analysis and based on conversations with marketing managers from accelerators: when the mean value of a channel was of 3 or 4 it was considered to be relevant to include in the framework.
- Based on the DM objectives and digital channels chosen, the ones presenting significant correlation coefficients (at a 5% significance level) were chosen to be included in the conceptual framework. Some exceptions were made, because in some cases were also chosen channels significant at a 10% level because of its relevance to the DM strategy.

By using these criteria, it was assured the framework contained all relevant aspects assessed through the univariate and multivariate analysis, as well as from the case studies conducted.

After having the relevant channels chosen to be included in the framework, the median values of each one were observed, in order to decide which was the frequency accelerators are using those channels the most. Having said so, Table 5.13 presents the final version of the conceptual framework described above. “D” means that channel is being used “Daily” to reach that target audience. “W” means that channel is being

used “Weekly” to reach that target audience. “M” means that channel is being used “Monthly” to reach that target audience. “O” means that channel is being used “Occasionally (1 to 3 times/year)” to reach that target audience.

Table 5.13 - Conceptual framework: channels used by accelerators in order to reach different objectives and audiences.

DM Objectives	Target audience	Channels				
		Website	E-mail	Facebook	Twitter	LinkedIn
Drive brand awareness	Start-up	W	W	W	D	
	Corporate			M	M	M
	Investor			O	M	
	University		M		M	
	Media		M		M	
Attract quality start-ups	Start-up	W	W	W	W	
Build a community	Start-up			W	W	M
	Corporate	W	W			
	Investor		M	O	M	
	University				O	O
	Media		M			O
Provide relevant content	Corporate		W			

Taking for instance if one accelerator defines one of its main DM objectives to be drive brand awareness amongst start-ups. In this case scenario, the channels chosen could be the following: Website (weekly), E-mail (weekly), Facebook (weekly) and/or Twitter (daily). Bear in mind that this is a result of the answers given by the majority of accelerators who participated in the survey and use regularly/often DM to drive brand awareness amongst start-ups.

5.5.3 Conceptual framework: number of people working full-time

Based on the previous elaborated conceptual framework, it was elaborated a second micro conceptual framework which includes the characteristic that presented a higher (and positive) correlation value: the number of people working full-time.

Once it is based on the previous framework, it also follows the same criteria mentioned before. The only difference is that the data was firstly split into two parts: answers from accelerators with 5 or less people working full-time and answers from accelerators with more than 5 people working full-time. The framework is presented in Table 5.14. “D” means that channel is being used “Daily” to reach that target audience. “W” means that channel is being used “Weekly” to reach that target audience. “M” means that channel is being

used “Monthly” to reach that target audience. “O” means that channel is being used “Occasionally (1 to 3 times/year) to reach that target audience.

Table 5.14 - Conceptual framework: channels used by accelerators with 5 or less people working full-time and more than 5 people working full-time in order to reach different objectives and audiences.

DM Objectives	Target audience	Number of people working full-time	Channels				
			Website	E-mail	Facebook	Twitter	LinkedIn
Drive brand awareness	Start-up	5 or less	W	W	W	W	
		More than 5	W	W	D	D	
	Corporate	5 or less			O	M	M
		More than 5			M	W	W
	Investor	5 or less			O	O	
		More than 5			O	M	
	University	5 or less		M		O	
		More than 5		M		M	
	Media	5 or less		M		M	
		More than 5		M		M	
Attract quality start-ups	Start-up	5 or less	W	W	W	W	M
		More than 5	W	W	D	D	W
Build a community	Start-up	5 or less			W	W	
		More than 5			D	D	
	Corporate	5 or less	M	W			
		More than 5	W	W			
	Investor	5 or less		M	O	O	
		More than 5			O	M	
	University	5 or less				O	
		More than 5				M	O
	Media	5 or less		M			
		More than 5		M			M
Provide relevant content	Corporate	5 or less		W			
		More than 5		W			

Taking for instance if one accelerator with 5 or less people working full-time defines one of its main DM objectives to be drive brand awareness amongst start-ups. In this case scenario, the channels chosen could be the following: Website (weekly), E-mail (weekly), Facebook (weekly) and/or Twitter (weekly). Once again, bear in mind that this is a result of the answers given by the majority of accelerators who participated in the survey and usually use DM to drive brand awareness amongst start-ups.

Chapter summary:

Accelerators use DM in order to achieve certain objectives and target audiences. Kendall Tau-b correlation coefficients were in line, most of the times, with the results from Kruskal-Wallis significance test. The number of people working full-time within the accelerator was the variable that stood out the most as influencing the frequency of using DM to “drive brand awareness” and “attract quality start-up”. It also influences the frequency of using Facebook, LinkedIn and Blog to reach start-ups; Website, Facebook, Twitter, LinkedIn, Instagram and Blog to reach corporates; and LinkedIn to reach investors. The conceptual framework gives an actual portrait of what are the DM objectives and digital channels accelerators are focusing on, as well as how frequent they are using those channels. It can help accelerators evaluate how well they are doing, when comparing with what is doing the majority of accelerators who are using those DM objectives and channels frequently.

Chapter 6

Case Studies

Chapter 6 presents the methodology used to structure a set of Case Studies that intend to complement the research and also to help validate the conceptual framework designed in Chapter 5. The accelerators interviewed were TechStars, NUMA, Beta-i and Startup Chile. These were the chosen ones because all have different Digital Marketing strategies and different backgrounds worth studying.

6.1 Case studies structure

The data collected from the survey aimed to answer questions such as “who”, “what”, “where”, “how many” and “how much”. To understand the “how” and “why” behind the use of DM by start-up accelerators, it was decided to develop a multiple case-study section within this research to complement the information gathered based on the multivariate analysis.

In order to develop the Case Studies, documents with regards to how to develop them, namely *Case Study Research: Design and Methods* from Robert Yin, were studied so that the same questions would be posed in each interview that would be conducted. This process allowed to analyze and compare the information collected more easily. Professor António Grilo and Professor Aneesh Zutshi assessed the validity of the selected interview questions.

Afterwards, interviews via Skype were conducted with the marketing manager of each selected accelerator. The accelerators chosen had interesting DM strategies worth studying and analyzing, besides presenting similarities with the data previously collected from the survey. Therefore, the entities were displayed according to 7 categories, as shown in Table 6.1.

Table 6.1 - Characteristics of the selected accelerators for developing the case studies.

Categories	TechStars	NUMA	Beta-i	Startup Chile
Headquarters	Boulder, USA	Paris, France	Lisbon, Portugal	Santiago, Chile
Year of foundation	2006	2014	2010	2010
Nature of the organization	Private	Private	Private	Public
Number of acceleration programs	30	8	12	3
Nature of the acceleration programs	Vertical, Horizontal, General, Pre-acceleration	General	General	General
People working full-time	>30	>30	>30	21-30
People working in the marketing team	11-20	0-5	6-10	0-5

After the interview was finished, the data was grouped into three different categories in order to build a multiple-case study:

1. *Introduction*: briefly explains the accelerator's history;
2. *Lessons Learned*: presents which was the previous DM strategy of the accelerator, what was working/what was not working, and what they are doing nowadays in terms of DM;
3. *Looking to the future*: presents which are the accelerator's priorities in terms of DM and which are their main upcoming challenges.

6.2 Case Studies

6.2.1 TechStars

Introduction

TechStars is a global ecosystem that help entrepreneurs succeed, built by David Cohen, Brad Feld, David Brown and Jared Polis in Colorado, USA, in 2007. Its purpose is mainly to empower entrepreneurs, which can be done by the following services:

- *TechStars Startup Programs*

Back in 2015, TechStars acquired UP Global, along with a set of programs that empowers entrepreneurs: Startup Digest (TechStars' newsletter), Startup Week (5-day conference to celebrate entrepreneurial achievements) and Startup Weekend (3-day event to connect with other entrepreneurs and to learn how to create a business).

- *TechStars Mentorship-Driven Accelerator Programs*

Three-month programs focused in specific verticals (e.g. health, education), which gives the selected teams access to office space throughout those months, capital, mentorship, marketing and other lifetime resources.

- *TechStars Corporates Innovation Partnerships*

Corporates help start-ups accelerating their businesses, at the same time they are rewarded with a great entrepreneurial spirit within their working culture, and are given opportunities to invest, do partnerships or acquire start-ups.

- *TechStars Venture Capital Fund*

TechStars invests in their start-ups (or alumnis) by using TechStars Venture Capital fund.

In 2017, TechStars has more than 100 exits, supports more than 1000 companies and created more than 10000 jobs.

Lessons Learned

When Kacey Wherley entered TechStars in 2015, they were just getting started into the digital scenario. They were using the bare minimum of social media (Twitter, Facebook and LinkedIn) to get the word out amongst start-ups, they were doing infrequent blog posts, and e-mail marketing was focused on start-ups only. At that time, DM was really not aimed to corporates and messaging towards partnerships (especially when it regards to social media marketing). However, on the positive side, TechStars' online videos were pretty good.

2015 was also the year TechStars acquired UP Global which held Startup Weekend, Startup Week and Startup Digest. After the acquisition, TechStars faced the problem of duplicates in terms of social media accounts, blogs, and so on. Thus, defining a DM strategy was not only needed, but mandatory. They started by closing some social media accounts, and making others stronger. Keeping the separate image branding

of TechStars, Startup Weekend, Startup Week and Startup Digest was achieved by defining which content was published in each account and how they would link each of these services between each other.

In 2017, TechStars focus on having a super strong social media. To do so, they make sure there is someone in the marketing team responsible for monitoring every day's social media activity and assure there is content going out frequently (and not only when necessary as before). Instagram and Snapchat are also being used by them in order to reach new audiences and attract new technology. Their hashtags #GiveFirst and #DoMoreFaster became a part of their branding. Furthermore, they do blog posts 3 days a week, free webinars, SEO, and have several newsletters: one focused on start-ups, another on partnerships, and a general one.

Moreover, when it comes to promoting local events, TechStars tries to push less on social media, so that only relevant content reaches people. That is why they use different targeting on Facebook or adjust posts for different time zones. Thus, since 2015, a lot has changed in TechStars' DM strategy, all the way from their audience growth to their activity's growth.

Looking to the future

Besides doing some SEO work on the side, TechStars is investing and will continue doing so in tools to use the channels they already have even more. This is being done by moving from MailChimp to Hubspot, and by starting to use Hootsuite to upgrade their social media plan. Generate leads, increase social media presence and doing more of online video are also their priorities.

Two of the biggest challenges TechStars is facing are their limited budget of online video (which is the most important part of marketing, but also the most expensive one) and the global aspect of TechStars. To continue doing what they do in different regions across the world is not an easy task indeed. However, it is being overcome not only by moving to platforms which help them manage their digital channels (Hootsuite), but also by using Google Docs, Slack for messaging, and WordPress to schedule posts from people who are at events in different regions.

Actually, this is one of the trickiest things of being such a large and global brand with many new locations. They need to promote different events that are happening in different regions and time zones. Moreover, creating different TechStars' pages on social media in different languages is still not an option for them, because they do not wish to target people in their own language if the events are then conducted in English.

Webinars and AMAs (Ask Me Anything) are free ways of reaching out people from all over the world and TechStars is planning to continue doing. Webinars' themes can range all the way from asking founders what they think of TechStars to corporate partnerships. In 2017 only, they had about 5000 people attending (about 100 to 200 people per webinar).

TechStars is planning to continue to differentiate itself from its competitors by having an impactful worldwide presence (29 programs across the world so far), sticking to their brand and values, try to always give back, and thus make people feel more comfortable while interacting with TechStars' people.



Figure 6.1 TechStars logo.

6.2.2 Beta-i

Introduction

Founded in Lisbon in 2010, Beta-i is one of the main entrepreneurship and innovation organizations in Europe. Their purpose is to help businesses grow the startup way and to do so they count with a well-established entrepreneurial network, startup acceleration programs (such as Lisbon Challenge, the pre-accelerator Beta-start and several other vertical corporate accelerators), and a working space where their hub is located. Moreover, they organize events such as Lisbon Investment Summit (which brings together investors, entrepreneurs and executives, in order to create investment and networking opportunities), Tourism Day and many others that aim to bring entrepreneurs together and thus helps them building up their community.

Lessons Learned

In 2016, Beta-i's mindset was totally different from what it is in 2017. Their exclusive concern was to reach out start-ups however they could, through every channel they had. They did so in English because their

target was (and still is) the international one. The marketing team was so small tasks were hard to split amongst three persons and the workload made it hard to give response to all the accelerator's needs. Besides, each time they had a new product or service to promote amongst a certain audience, their strategy was to create a new page or new channels. However, doing so made it impossible to have one single page dedicated to each service Beta-i has, where the target audience could enter and immediately find all the information from previous editions for instance. Even worse: it made it hard for people to connect that service to Beta-i's brand.

Thus, they felt the need to change not only to make a statement amongst other hubs, but also to answer all the needs of their diversified audience. And the result so far has been an exponential growth.

They started increasing the size of the marketing team, which made it possible to better manage the multiple channels they had, not only of Beta-i's products accounts, but also the ones of their clients (e.g. corporates acceleration programs). Developing a communication strategy helped better promoting Beta-i as a brand and their services amongst corporates, investors and start-ups. Besides, they use CRM platforms in order to help them track everyone who interacts with them and to be able to deliver the best content to each person, according to their interests. They also send newsletters every two weeks and do some SEO work on the side.

Looking to the future

Since the change of strategy occurred in 2016, Catarina Correia (Beta-i's Marketing Manager) believes they will not change it soon. However, they will continue to develop communication channels more and more personalized to each audience they want to reach out to. Of course this is not always easy: it implies creating content, verifying time spent online, or understanding in which channels are their target audience. But, in a long term, Beta-i is confident they will be able to answer audience's expectations.

They will keep investing on a strong SEO and on an even stronger CRM, so they can deliver the right content to the right person. Once again: personalization is key to them.

To do this, Catarina Correia is counting having the team working towards the same goals and to help her defining who enters in contact with Beta-i each day, so they can determine what offer to them to help Beta-i's brand to get recognized, and thus to be more easy to sell any product just because it comes from them.



Figure 6.2 Beta-i logo.

6.2.3 NUMA

Introduction

NUMA came around in 2014, when Silicon Sentier (an association to help digital entrepreneurs in France founded in 2002), La Cantine (France’s first co-working space founded in 2008) and Le Camping (first start-up accelerator in Paris) merged. In 2017, NUMA does not do only acceleration programs for startups and open innovation projects for corporates, but also organizes events, trainings and offers co-working spaces to their communities.

NUMA’s economic and social value created for start-ups, corporates, public institutions and communities enhanced their global expansion to Barcelona, Bengaluru, Berlin, Casablanca, Mexico, Moscow, New York and Paris.

Moreover, NUMA has recently clarified their mission as being “empower mission-driven tech entrepreneurs to solve the global problems of 2030”, which means their acceleration programs, companies projects and events will be focused on solving questions of this matter.

Lessons Learned

Since the beginning NUMA is not only an accelerator, but a source of open innovation programs for corporates and events of all sorts for entrepreneurs. That is why Amélia Matar (NUMA Paris Communications and Marketing Director) says that it is in their DNA to focus their DM strategy not only on start-ups, but also on corporates, public institutions and entrepreneurs in general. And to do so they previously used e-mail marketing, social media (such as Facebook, LinkedIn, Twitter) and a lot of tech promotion (AdWords, Facebook Ads, LinkedIn Ads, Twitter Ads) to reach these audiences.

Today, in 2017, the channels used remain the same from the past, because channels itself have evolved throughout the years (for instance, targeting features on Facebook Ads is much more accurate and precise nowadays than when NUMA started). They continue using channels such as Facebook, Twitter, Instagram, LinkedIn and YouTube and working side by side with an expert in SEO, especially when they need to publicize in their website trainings they do in design thinking, digital information or new development methodologies.

More than the channels, NUMA's content in terms of design, wording and type of content published has evolved a lot from the past. Online articles (e.g. reports) are one of NUMA's bets, as an attempt to bring serious content into their digital channels.

Moreover, when NUMA stepped up and decided to expand, they started providing guidelines to other NUMA spread around the globe, so that the same branding is used (in terms of colors, font type, ...).

However, being an international company means that not all channels or search engines can be used because of certain country's particularities. NUMA Moscow for instance cannot use Ad Words, because Google is not very used in this country. So even though there is a global guideline for DM, it depends on each NUMA to decide what they want to achieve with digital channels, what type of content to publish and which channels to use.

Looking to the future

NUMA knows DM itself is a priority, so they are aiming for personalization of the communication and for being able to deliver the right message to the right person. To do so, they want to improve their CRM strategy (especially when it comes to e-mail marketing and business development) and automation marketing skills (to personalize e-mails, and thus increase its opening rates).

As for challenges, Amélia Matar stands out the precision, i.e., the ability of targeting only individuals who may be interested in their activities. Besides, being an international company implies they must be very thoughtful in each decision they make. That is why they must continue sharing best practices amongst other NUMA across the world.

NUMA will continue their efforts on stating its brand as an international player of the entrepreneurial ecosystem.



Figure 6.3 NUMA World logo.

6.2.4 Start-up Chile

Introduction

Start-Up Chile (SUP) is a public startup accelerator founded in 2010 by the Chilean Government. However, at the beginning they were not an accelerator: they were an entrepreneurial program looking to attract worldwide entrepreneurs to Chile and to enhance them to use this country as a platform to start their business. Their main objectives were to position Chile as the best hub for entrepreneurship and innovation in Latin America and to create a startup ecosystem in Chile.

In 2016, SUP officially became a startup accelerator and by doing so created three acceleration programs: The S Factory (pre-acceleration program for start-ups led by female founders), Seed (acceleration program for companies with a functional product and early validation) and Scale (top performing companies incorporated in Chile, looking to scale in Latam and globally). Moreover, they do around 17 to 20 events per year (such as Tech Evenings, Corp Biz Day and Demo Days), as a way to boost their entrepreneurial network and strengthen partnerships.

Lessons Learned

SUP appeared as a government experiment to take advantage of the economic crisis caused by the cancellation of visas to startups working in the USA. During its first five years, SUP had a really cheap public policy: the only money they got was from the government and it was to pay the entrepreneurs' grant and staff's salary. This is the reason why their marketing strategy was always focused on the community and on how the startup industry worked culturally. Through partnerships and digital platforms, SUP made their case. Every time they had an application process going on, they published on Facebook, Twitter or YouTube, so that people around the world would know that SUP wanted to help entrepreneurs in a different

way. Back then, Sebastián Díaz (Marketing Director of SUP) says that there was more of a communication strategy focused on the press rather than a marketing strategy.

In 2015, SUP decided to evolve from just an entrepreneurial program to a startup accelerator. Officially becoming one took some time because they needed to establish different programs and organize the new departments. However, in 2016 that became a reality.

By doing so, they also changed their marketing strategy. Their web page was upgraded and has not only information regarding their program application process, but also all sorts of content focused on two main target audiences: entrepreneurs (in order to attract talented individuals to Chile) and policy makers (so that Startup Chile can help them make better decisions about entrepreneurship and innovation).

Moreover, in their blog they take advantage of the large startup portfolio they have and the great amount of content written by their community: SUP, start-ups and entrepreneurs write 90% of it and partners write the remaining 10%. SUP has the biggest and more diverse startup community in the world, so they outlined a marketing content strategy so that they could use all the content available from startups and entrepreneurs.

In 2017, they are a huge communication machine with more than 10 000 press articles and 3 articles per day talking about SUP around the world.

SUP also does lots of events in order to boost its ecosystem and increase its chances of success. On one hand, they organize Tech Evenings (once per month and divided per industry), where the best 10 startups are invited to pitch, in front of corporates, investors and entrepreneurs. On the other hand, they have Demo Days which are the final event of the acceleration programs (conducted in English), where 20 startups pitch to a totally different audience from Tech Evenings. They usually invite (through MailChimp) key entrepreneurs, public authorities, universities, investors and corporates to attend. The main objective of Demo Days is to market SUP and to show to the community what they are doing in their acceleration programs. According to Sebastián Díaz, it is harder to reach out to investors and companies to go to their Demo Day than to Tech Evenings. This happens mostly because the first one has 20 different industries they could possibly target while the latter one has an industry focus.

Despite all this, SUP uses its partners' network to reach out to entrepreneurs to participate in their acceleration programs and thus boost the Chilean ecosystem. To find female founders, they contact universities around the world and press (magazines, newspapers, blogs, websites) that focus on female business issues. To find startups to their Seed program, they use not only universities and press, but also

other accelerators (they have more than 70 partnerships with worldwide accelerators, incubators and entrepreneurial programs).

Its partners' network also helps them to offer merchandising, launch office parties or do workshops while their entrepreneurs' community is at SUP's program.

Looking to the future

Once SUP is the first doing what it is doing in terms of public policy, there is no right marketing strategy to follow.

However, they will continue to focus on content because numbers show that their content strategy works. They will also continue to invest in their communication strategy with the press because the number of publications and articles talking about SUP just keeps increasing. But what kind of content and which person they want to reach is probably going to change in the next couple of months, always bearing in mind the achievement of an economic impact in Chile.

In terms of priorities, SUP will probably put their efforts into scouting and they will keep betting on their founder's network and partnerships to help funding their events and merchandising. CRM is a concern not only in the marketing department, but a bit around all SUP structure.

As for challenges, budget is their biggest limitation, along with bringing investors into the Chilean ecosystem, once they have some trouble on understanding how a startup portfolio works.



Figure 6.4 Startup Chile logo.

6.3 Case studies vs conceptual framework emerged from empirical data

In this section it will be compared the results from the case studies presented above and the results from the conceptual framework that emerged from empirical data and was built based on the number of people

working full-time (presented at the end of Chapter 5). Doing so will help validating the conceptual framework designed.

Overall, the channels more used by the 4 accelerators interviewed are the ones presented in the conceptual framework: Website, E-mail, Facebook, Twitter and LinkedIn. The DM objectives more referred were also the ones who are presented in the conceptual framework: drive brand awareness, attract quality start-ups, build an entrepreneurship community and provide relevant content to corporates and investors. Regarding the target audience, start-ups are definitely the highlighted one, even though are followed by corporates and investors closely. In the case of Startup Chile, universities and media are also important target audiences to them. These kind of information allow to validate the reasons why those DM objectives (drive brand awareness, attract quality start-ups, build an entrepreneurship community, and provide relevant content to corporates and investors), digital channels (Website, E-mail, Facebook, Twitter and LinkedIn) and target audiences (start-ups, corporates, investors, universities and media) were included in the conceptual framework.

There was a special interest given by all accelerators to the social networks and its importance to raise brand awareness, attract quality start-ups, provide relevant content to corporates and investors, and build an entrepreneurship community. TechStars and Startup Chile use social media on a daily basis, especially to reach out to startups. This is a result that goes towards the conceptual framework, since it includes Facebook and Twitter being used daily by accelerators with more than 5 people working full-time to drive brand awareness, attract quality start-ups and build an entrepreneurship community.

Besides NUMA, focusing the DM efforts towards reaching out corporates more frequently started being done by the majority of accelerators in 2015. Being a recent move, it is natural there are differences regarding the frequency of using digital channels to reach corporates. In the conceptual framework, while accelerators with 5 or less people working full-time use Facebook and Twitter occasionally and monthly (respectively) to drive brand awareness amongst corporates, accelerators with more than 5 people working full-time use Facebook and Twitter monthly and weekly (respectively) to do so. While interviewing Startup Chile and TechStars, it was possible to observe both use Facebook and Twitter weekly to drive brand awareness amongst corporates and they are being successful doing so. This means other accelerators with more than 5 people working full-time can also try and follow this strategy.

Unlike TechStars, it is interesting to observe that Startup Chile is focusing their efforts not only on start-ups, corporates and investors, but also on universities and media. Even though Startup Chile uses Website, E-mail, Facebook, Twitter and LinkedIn monthly to build a university community, the majority of accelerators who focus frequently on building an entrepreneurship community use Twitter and LinkedIn

monthly and occasionally (respectively) to do so amongst universities. Thus, accelerators who are not including universities in their DM strategy to build an entrepreneurship community may start thinking about adopting Startup Chile strategy.

Moreover, channels such as Instagram, YouTube and Snapchat are used by NUMA and TechStars to attract quality start-ups, according to the case studies. However, these channels were not referred in the conceptual framework. It is important to bear in mind that the conceptual framework presents a portrait of the most relevant channels being used by accelerators, why they are using so, to get to whom and how frequently they are doing so. According to the survey, Instagram was used by very few accelerators, YouTube is used very occasionally throughout the year by accelerators, and Snapchat was not even mention in the survey because it was not considered to be relevant when elaborating it alongside accelerator's marketing managers. These are the reasons they were not included in the conceptual framework.

On a side note, the blank spots in the conceptual framework mean that particular channel, target audience or objective did not present a significant correlation or its mean value meant accelerators were using it very occasionally throughout the year, thus was not going to add value if included in the framework.

Chapter summary:

In general, the different accelerators interviewed for the case studies are using more often social networks to drive brand awareness and using Website and E-mail monthly to weekly to keep the communication flowing between corporates, investors, universities and media. They do so to mostly to build an entrepreneurship community and provide relevant content to corporates and investors. The results from the case studies allowed to support, in general, the results presented in the conceptual framework.

Chapter 7

Conclusions

In this chapter, the relevant results from Chapters 4, 5 and 6 are analysed and discussed, i.e., the results from descriptive statistics, multivariate analysis and case studies conducted. Besides, the initially framed research questions from Chapter 1 are answered in this section. The main findings from this research are outlined and questions for further research are identified.

7.1 Addressing the research questions

In this section, the research questions framed in Chapter 1 are answered.

- *How is Digital Marketing helping accelerators reaching their main objectives?*

Firstly, the sample collected for this research included accelerators mostly from North America and Europe and founded after 2010. Almost all are from the private sector, and mostly running one vertical acceleration program. Most of the accelerators surveyed had 5 or less people working full-time and 5 or less people working in the marketing team.

In its majority, the DM objectives more popular amongst start-up accelerators (i.e., DM is used weekly/daily to achieve them) are the following:

- Attract quality start-ups;
- Build an entrepreneurship community;
- Drive brand awareness.

According to the multivariate analysis, the frequency of usage of these objectives is significantly affected especially by the number of people working full-time. The frequency of trying to achieve the objective “attract quality start-ups” is also affected by the nature of the acceleration programs run by the accelerator.

“Attracting quality start-ups” and “drive brand awareness” are fundamental pillars in the DM strategy of any accelerator. Both are used daily to weekly by accelerators with more than 5 people working full-time,

and never/occasionally by accelerators with 5 or less people working full-time. The multivariate analysis allowed to verify that the number of people working full-time and the number of programs being run by accelerators (1 or 2) influence the frequency of the usage of DM to “attract quality start-ups”. Moreover, private accelerators with 5 or less people working full-time value differently from private accelerators with more than 5 people working full-time the frequency of using DM to achieve both “attract quality start-ups” and “drive brand awareness”.

Regarding “drive brand awareness”, not only the number of people working full-time affect the usage of DM daily/weekly to reach this objective, but also the number of people working in the marketing team. Indeed, accelerators with more than 5 people working in the marketing team use DM daily/weekly to “drive brand awareness”, while accelerators with 5 or less people working in the marketing team use DM never or occasionally to do so.

Additionally, “attract quality corporates” is valued differently by accelerators with 5 or less people working full-time and more than 5 people working full-time. European accelerators with 5 or less people working full-time and European accelerators with more than 5 people working full-time value differently the frequency of using DM to “provide relevant content to corporates and investors”, “attract quality corporates”, “attract quality investors” and “support decision-making process”. Private accelerators running general or vertical acceleration programs value differently the frequency of using DM to do “competition follow-up”.

E-mail, Facebook and Twitter are some of the most interesting digital channels used by accelerators, used for different strategic reasons by accelerators. On average, accelerators who are running 1 acceleration program tend to use E-mail daily/weekly to “sell a service” and “provide relevant content about what the organization is doing”, while accelerators running 2 acceleration programs tend to use E-mail occasionally to do so. Besides, accelerators who have more than 5 people working full-time tend to use E-mail daily/weekly to “drive traffic to the organization’s website”.

Regarding Facebook’s marketing strategy, accelerators who have more than 5 people working full-time tend to use Facebook daily/weekly to “drive traffic to the organization’s website”, “sell a service”, “provide information on what the organization is doing”, “enhance loyalty towards the brand” and “lead generation”. When it comes to Twitter’s marketing strategy, accelerators who have more than 5 people working full-time tend to use it daily/weekly to “drive traffic to the organization’s website”.

Ultimately, the definition of the DM strategy objectives that will guide the accelerator's vision seems to depend on the number of people working full-time in the accelerator, its nature (public or private) and the number of acceleration programs.

- ***Which digital channels are accelerators across the world using?***

Based on the sample of accelerators collected from the survey and independently of the target audience, the main channels accelerators are focusing nowadays are: Website, E-mail, Facebook and Twitter.

It is important to highlight, however, there is no right strategy when it comes to defining the digital channels used or its frequency of usage to reach a certain target audience. It depends on multiple factors, being characteristics of the accelerator such as location, nature of the acceleration program or number of people working full-time the ones more explored in this research.

When focusing on reaching start-ups, accelerators are using digital channels such as: Facebook and Twitter daily to weekly; and Website, E-mail and LinkedIn on a weekly to monthly basis. When focusing on corporates and investors, accelerators are using E-mail and Website on a monthly to weekly basis; and Twitter, LinkedIn and Facebook are either never used or used on a monthly to weekly basis. Reaching out to the government, universities and media is not as frequent amongst accelerators as to reach start-ups, corporates or investors, but the main channels used to do so are E-mail and Website on an occasional to monthly basis. Furthermore, accelerators are also using Facebook and Twitter on a monthly to occasional basis to reach out universities and media.

- ***How do the characteristics of accelerators influence the frequency of using digital channels?***

“Website” is a ‘must-have’ to any corporation nowadays to reach any kind of target audience. When talking about accelerators with more than 5 people working full-time, it is especially significant the frequency they use Website to reach out corporates (daily to weekly), while accelerators with 5 or less people working full-time use Website occasionally throughout the year. When focusing on corporates, the frequency of using Website is also significantly different amongst private accelerators with 5 or less people working full-time and private accelerators with more than 5 people working full-time, as well as amongst vertical accelerators

with 5 or less people working full-time and vertical accelerators with more than 5 people working full-time. When focusing on investors, the frequency of using Website is significantly different amongst accelerators with more than 5 people working full-time who have one acceleration program and accelerators with more than 5 people working full-time who have two acceleration programs.

“E-mail” is another ‘must-have’ to any corporation which allows internal and external communication to flow. The most significant characteristics that affect the frequency of using E-mail are: number of acceleration programs, nature of the acceleration program and number of people working full-time.

Regarding the first one, private accelerators with one acceleration program value differently from private accelerators running two programs the frequency of using E-mail to reach corporates. Additionally, accelerators running one acceleration program use E-mail daily/weekly to reach out corporates, while accelerators running two acceleration programs use E-mail occasionally to do so. Regarding the nature of the acceleration program, the multivariate analysis showed vertical accelerators from Europe value differently from vertical accelerators from North America the frequency of using E-mail to reach start-ups. Regarding the last characteristic, accelerators running one acceleration program with 5 or less people working full-time value differently from accelerators running one program with more than 5 people working full-time the frequency of using E-mail to reach corporates.

When it comes to “Facebook”, accelerators tend to adhere to this social network because it is where their target audience is (start-ups and corporates mostly). The frequency of using Facebook is especially affected by the number of people working full-time. While accelerators with more than 5 people working full-time tend to use daily/weekly Facebook to reach out start-ups and corporates, accelerators with 5 or less people working full-time tend to use it never/occasionally to do so. Moreover, private accelerators with 5 or less people working full-time tend to value differently from private accelerators with more than 5 people working full-time the frequency of using Facebook to reach out start-ups and corporates. Accelerators running one acceleration program and with 5 or less people working full-time tend to also value differently from accelerators running one program and with more than 5 people working full-time the frequency of using Facebook to reach out corporates.

Another digital channel frequently used amongst accelerators is Twitter, also especially affected by the number of people working full-time. Significant correlations were found amongst accelerators with more than 5 people working full-time who tend to use Twitter daily/weekly to reach out corporates and accelerators with 5 or less people working full-time that tend to use it never/occasionally to do so. Private or vertical accelerators with more than 5 people working full-time and private or vertical accelerators with

5 or less people working full-time tend to value differently the frequency of using Twitter to reach corporates.

Addressing to geographical differences, accelerators from Europe with more than 5 people working full-time value differently from North American accelerators with 5 or less people working full-time the frequency of using Twitter to reach corporates. When trying to reach start-ups, accelerators from Europe and North America either from the private sector, either running vertical acceleration programs, or either with 5 or less people working full-time, value differently the frequency of using Website to reach start-ups. Besides this, accelerators from Europe and North America tend to use one or more social networks to reach the media, while accelerators from Asia & Oceania and Middle-East & Africa tend to use no social network to reach them.

The nature of the accelerator also seems to influence the number of social networks used, being public accelerators more propitious to use more than one social network to reach the media and private accelerators more propitious to use no social network to reach the media. This can have probably to do with the fact that public accelerators struggle a bit more when reaching out the media due to their budget limitations, thus making accelerators use all free resources they can get to, namely social networks.

When defining a strategy, it is important to define which are the KPIs that will help measuring the existence (or not) of progress. Regarding E-mail's marketing strategy, significant results were found when analysing accelerators from Europe and North America who often use "Number of E-mails sent" as their preferred E-mail KPI; accelerators running one acceleration program who often use "Unsubscribed rate"; and accelerators with more than 5 people working full-time who often use "delivered rate". Regarding Twitter's marketing strategy, accelerators running one acceleration program tend to use often "number of followers" as their preferred Twitter KPI.

The future of DM amongst accelerators is vast and full of opportunities, but it is worth standing out accelerators from Middle-East & Africa and Asia & Oceania who will invest in Blogs and SEO, public accelerators that will invest in viral campaigns, and accelerators running two acceleration programs who will invest in promoting their digital brand. Also, on average, accelerators from Europe will invest in social media and from North America in website design.

7.2 Conclusions

A Digital Marketing strategy is one of the core portions of a business so that all the objectives defined can be achieved and the resources can be properly allocated. Aspects such as defining the goals, channels and frequency of monitoring a DM strategy are inherent to any business, but, nonetheless, they should be adapted to each one's reality.

Being that the accelerator model is a new sector that has not yet been explored deeply, the current research was conducted to understand how DM was being used by start-up accelerators nowadays. Even though some limitations were faced, this dissertation has successfully presented a portrait of DM amongst start-up accelerators worldwide.

To do so, it was first carefully conducted a literature review on DM and its different channels and strategies used, as well as on accelerators in order to understand this worldwide phenomenon. Sources such as books, reports or academic journals were used for this effect.

Then, it was conducted an online survey where personal information about the accelerator was collected, as well as its DM objectives and digital channels used. Doing so allowed the authors to address the research questions and to understand how DM was being handled by accelerators.

When doing the univariate and multivariate analyses of the data collected, it is undoubtable that accelerators use DM mostly to drive brand awareness, attract quality start-ups and build an entrepreneurship community. To do so, they rely mostly upon channels such as Website, E-mail, Facebook and Twitter to reach out to start-ups, corporates and investors. LinkedIn, Blog and Slack are also somewhat used to achieve these objectives and reach these target audiences, but in a less frequent way.

Designing the conceptual framework and conducting a set of case studies allowed to give powerful insights to the accelerator community with regards to which DM objectives are accelerators focusing on, which type of channel they are using and how often they are using it to reach a certain target audience. This kind of information helps accelerators to have a guide when defining their DM strategies, but they should always bear in mind that there is no correct strategy and the cultural and economic contexts where accelerators are in may affect the definition of their DM strategy.

7.3 Insights and Recommendations for start-up accelerators

This research is based on a survey conducted amongst 300 worldwide accelerators, which allowed the collection of 60 answers from accelerators from mostly Europe and North America, the private sector, running vertical acceleration programs and with 5 or less people working full-time. When analysing the survey that explored the DM strategies being used nowadays by start-up accelerators, the most interesting insights were the following:

- Attract quality start-ups, build an entrepreneurship community and drive brand awareness are, on average, the DM objectives accelerators are trying to reach;
- Website, E-mail, Twitter and Facebook are, on average, the digital channels more used by accelerators;
- Facebook, Twitter, Website and E-mail are, on average, the channels used on a weekly basis to reach out start-ups;
- Website, E-mail, Twitter and LinkedIn are, on average, the channels used on a monthly to weekly basis to reach out corporates;
- E-mail and Website are, on average, the channels used on a monthly to weekly basis to reach out investors;
- E-mail is the channel used, on average, on a monthly basis to reach out to universities;
- Website, E-mail and Twitter are the channels used, on average, on a monthly basis to reach out the media;
- In 2018, accelerators will invest, on average, in social media, website design, e-mail marketing, blogs and video content development.

The number of people working full-time turned out to be the characteristic of accelerators that influenced the most the frequency accelerators are using DM to achieve certain objectives.

The conceptual framework designed in Chapter 6 aims to guide accelerators when defining their DM strategy. This framework can help an accelerator in two ways:

- Either to know that accelerators are using a certain DM objective frequently and a digital channel more often; if this is the case, the accelerator can try to use that digital channel/objective more often like the majority of the other accelerators;
- Either to know that accelerators are using a certain DM objective frequently and a digital channel and the accelerator is not using it at all; if this is the case, the strategy of starting to use that channel or to try to achieve that DM objective can be adopted.

Note also that the definition of the DM objectives appeared to be related to the number of people working full-time within the accelerator (5 or less people working full-time or more than 5 people working full-time), to the nature of the accelerator (private or public sector) and to the number of acceleration programs (one or two). The definition of the digital channels to use depend not only upon the DM objectives, but also of the number of people working full-time (in its majority), even though the location of the accelerator, nature of the accelerator, nature of the acceleration program and number of acceleration programs also affected the choice of some channels.

Ultimately, accelerators can use the conceptual framework to support their DM strategy. However, they always have to take into consideration the economic and cultural context involving them.

As an additional recommendation, accelerators can take a great advantage from developing an e-mail marketing strategy which allows them not only segmenting but also to collect information on what are the interest of their target audience. Besides, using channels such as Quora and Reddit can help accelerators to improve the quality of the content delivered to start-ups, corporates, investors, ...

7.4 Limitations and Recommendations for future research

Even though this research was successful because it was able to build a portrait of the DM objectives and channels used amongst the accelerator community and to address the initial research questions, it had some limitations which might have been avoided if the time to develop the research was more extended.

The main limitation was the sample size collected from the survey. 60 answers were collected from a total of 300 accelerators that were contacted. Even though the sample collected led to the discovery of relevant insights, if all 300 accelerators had participated in the survey the research would be even more trustworthy. Because of this limitation, important players such as Israel and Chile could not be analysed when it came to conducting correlation analysis and significance tests of differences between means.

Thus, if the sample size was larger, likely the number of observations in each category would also be larger. Having more observations per category would allow to deepen the analysis by making possible the study along a finer variety of characteristics and eventually would lead to different patterns that could enrichen the set of conclusions.

With regards to future research, some DM topics were left on the side because it was neither the purpose of this research to explore them in depth neither there was the time to explore all of them within 6 months. E-

mail, Facebook and Twitter were explored more in depth in the survey, but it would be interesting to conduct a research on how accelerators are taking advantage of SEO, SEM, CRM and E-mail marketing. According to the case studies conducted, accelerators are making great efforts in these last two areas, so it would be great to explore how they are helping accelerators increase their efficiency. Another interesting aspect to explore would be how the DM strategy of an accelerator can influence the success of start-ups in their acceleration program.

Conducting the present research but with more data available is one way of analyzing more in depth the data. Cluster analysis, Regression analysis and Discriminant analysis did not give a clear picture of the distinct accelerator groups that could exist, but if there were more answers in the survey it would help solve this problem. Cluster analysis tries to identify homogenous groups that were previously unknown. Regression analysis is a statistical process for estimating the relationships between a dependent variable and one or more independent variables (called predictors). Discriminant Analysis is a way of predicting a categorical dependent variable by one or more continuous or binary independent variables.

After this research, it would be interesting to tackle the data collected with Fuzzy Analytic Hierarchy Process (AHP) and Fuzzy Technique for Order Preference by Similarity to Ideal Solution (TOPSIS). Fuzzy AHP is an approach that allows to make a choice from several alternatives and provides a comparison of the considered options. Fuzzy TOPSIS is a linear weighting technique which chooses an option (from a system with n options) which has the shortest distance from the positive-ideal solution and the longest distance from the negative ideal solution. In this case, fuzzy AHP would be used to determine the weights of DM channels selection criteria and fuzzy TOPSIS would be used to rank the DM channels.

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Appendix I - Survey

Digital Marketing practices in start-up accelerators

Hello,

We would sincerely appreciate if you took part of this survey regarding the Digital Marketing strategies accelerators are using nowadays. All the information you provide is confidential. It will only take 6 minutes to complete this questionnaire. The results of this research will be sent to you by e-mail.

Thank you!

* Note that this survey will help a research being conducted amongst startup accelerators across the world by New University of Lisbon.

Your profile

In this part of the survey, there are some generic questions regarding your organization.

***1.** Your organization is based in... (Choose one answer)

(List of countries)

***2.** Which is the year of foundation of your organization?

(Open answer)

***3.** Which is your position in the organization?

- Marketing Manager
- Community Manager
- Program Manager
- CEO
- COO
- CFO
- Other

***4.** Which of the following categories best describes your organization? Choose one answer.

- Private sector
- Public sector

***5.** Which of the following words best describe your organization's acceleration program(s)?

- Vertical acceleration (for start-ups focused in a specific industry sector, e.g.: IoT, FinTech...)
- Horizontal acceleration (for start-ups focused in a specific technology or product)
- Pre-acceleration (for early stage start-ups)
- General acceleration (does not focus in any particular features of start-ups)

***6.** How many people are working full-time within your organization?

- 0 to 5
- 6 to 10
- 11 to 20
- 21 to 30
- >30

***7.** How many people are working in the marketing and communication team within your organization?

- 0 to 5
- 6 to 10
- 11 to 20
- 21 to 30
- >30

8. Name of your organization?

(Optional, but appreciated)

Digital Marketing objectives

Digital Marketing includes all digital ways of communicating with your target audience (e.g.: e-mail, social media, online forums, mobile, etc).

***9.** Rate from Never to Regularly (daily) how often you use Digital Marketing to achieve these objectives.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Drive brand awareness					
Attract quality start-ups					
Attract quality corporates					
Attract quality investors					
Attract successful influencers					
Build an entrepreneurship community					
Provide relevant content to corporates and investors					
Provide online support (to after-the-program start-ups, possible start-up candidates, corporates)					
Support decision-making process					
Crowdsourcing					
Competition follow-up					

10. Would you add other Digital Marketing objective(s) relevant for your organization? If yes, please mention which one(s).

(open question)

Digital Marketing challenges

***11.** Rate from 1 (not important) to 5 (extremely important) the main Digital Marketing challenges your organization faces.

	Not important	Somewhat important	Important	Very important	Extremely important
Contact data base organization (i.e. managing employee's database, who is talking with who through e-mail, social networks, ...)					

Managing brand reputation					
Ability to generate deep attendees insights (start-ups, mentors, investors, corporates)					
Having all marketing & communication team working towards the same goals and objectives					

12. Are you facing other challenge(s) besides the above-mentioned? If yes, mention which one(s).

(open question)

Digital Marketing channels

Digital Marketing channels include all social media channels (Facebook, Twitter, etc), e-mail, brand website, online forums (Quora, Reddit,...) and chats (Slack, ...).

***13.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channels to target STARTUPS.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					
Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

***14.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channels to target CORPORATES.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					
Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

***15.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channel(s) to target INVESTORS.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					
Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

***16.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channel(s) to target the GOVERNMENT.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					
Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

***17.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channel(s) to target UNIVERSITIES.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					
Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

***18.** Rate from Never to Regularly (daily) how often you use the below-mentioned Digital Marketing channel(s) to target MEDIA.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Website					
Email					

Facebook					
Twitter					
Instagram					
LinkedIn					
YouTube					
Slack					
Flickr					
Pinterest					
Blog					
Quora					
Reddit					

19. Do you have other target audience your Digital Marketing strategy is focusing? If yes, mention both the target and the channels used.

(open answer)

***20.** Which of the below-mentioned channels do you use the most? Mention your TOP 3.

- Website
- Email (e.g. Gmail)
- Facebook
- Twitter
- Instagram
- LinkedIn
- YouTube
- Slack
- Flickr
- Pinterest
- Blog (e.g. WordPress)
- Quora
- Reddit
- Other

Email Marketing

***21.** Rate from Never to Regularly (daily) how often you use E-mail Marketing to achieve these objectives.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Driving traffic to the organization's website					
Improve website's visitor experience					
Increase number of social media followers					
Selling a service					
Provide information regarding what your organization is doing (events, methodologies, ...)					
Enhance loyalty towards the brand					
Lead generation					

***22.** Which are the Emails' KPIs used by your organization? Choose one or more options.

- Number of emails sent
- Email Open rate
- Click-through rate
- Bounce rate
- List Growth rate
- Email Sharing/Forwarding Rate
- Overall ROI
- Conversion rate
- Hurdle rate
- Delivered rate
- Unsubscribe Rate
- Other

***23.** How often do you evaluate your E-mail strategy? Choose one option.

- Weekly
- Monthly
- Quarterly
- Other

Facebook

***24.** Rate from Never to Regularly (daily) how often you use Facebook to achieve these objectives.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Driving traffic to the organization's website					
Improve website's visitor experience					
Increase number of social media followers					
Selling a service					
Provide information regarding what your organization is doing (events, methodologies, ...)					
Enhance loyalty towards the brand					
Lead generation					

***25.** Which are the Facebook's KPIs used by your organization? Choose one or more options.

- Page likes
- Post reach
- Engagement
- Page impressions
- Shares
- Other

***26.** How often do you evaluate your Facebook's strategy? Choose one option.

- Weekly
- Monthly
- Quarterly
- Other

Twitter

*27. Rate from Never to Regularly (daily) how often you use Twitter to achieve these objectives.

	Never	Occasionally (1 to 3 times per year)	Sometimes (monthly)	Often (weekly)	Regularly (daily)
Driving traffic to the organization's website					
Improve website's visitor experience					
Increase number of social media followers					
Selling a service					
Provide information regarding what your organization is doing (events, methodologies, ...)					
Enhance loyalty towards the brand					
Lead generation					

*28. Which are the Twitter's KPIs used by your organization? Choose one or more options.

- Engagement (replies, retweets, likes)
- Organic impressions
- Followers
- Messages sent
- Response rate & time
- Mentions
- Profile visits
- Tweets linking to you
- Other

*29. How often do you evaluate your Twitter's strategy? Choose one option.

- Weekly
- Monthly
- Quarterly
- Other

Digital Marketing trends

***30.** Which digital areas are you planning to invest in 2018? Select only TWO options.

- Social media
- E-mail marketing
- Viral campaigns
- Website design
- Digital ads
- Mobile
- Blogs
- Sponsored search engine advertising
- Sponsored search engine results
- Digital infrastructure
- Digital brand experiences
- People involved in Digital Marketing
- Video content development
- Website maintenance and domain
- Other

Appendix II - Quantitative analysis per profile, based on descriptive statistics

Profiles of organizations show how each accelerator value the different aspects of DM that were explored in the survey. The accelerator's profile shown in Appendix II are: location of the accelerator, and number of people working full-time in the accelerator.

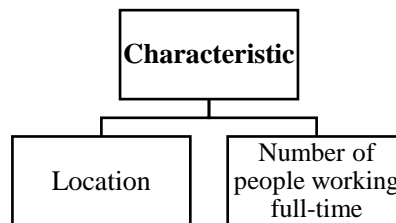


Figure II.1. Characteristic to analyze.

II.1. Characteristic: Location of the organization

All countries (including Israel and countries from South America) were considered when doing this kind of profiling. Portugal was kept outside Europe to inspect how its recent entrepreneurial development influenced DM strategies. Israel was kept outside Middle-East and Africa because its ecosystem is way more developed than the rest of the countries in this region. So, the locations of accelerators will be analyzed as follows: Portugal; Europe; North America; South America; Israel; Middle-East and Africa; and Asia and Oceania.

However, Israel could not be analyzed due to lack of answers (only 2), which made it an unrepresentative sample.

II.1.1. Profiling information regarding continents

21 organizations are European (36%), 16 organizations are from North America (27%), 6 are Portuguese (10%), 5 are from Asia and Oceania (8%), 5 are from Middle-East and Africa (8%), 4 are from South America (7%), and 2 are from Israel (3%).

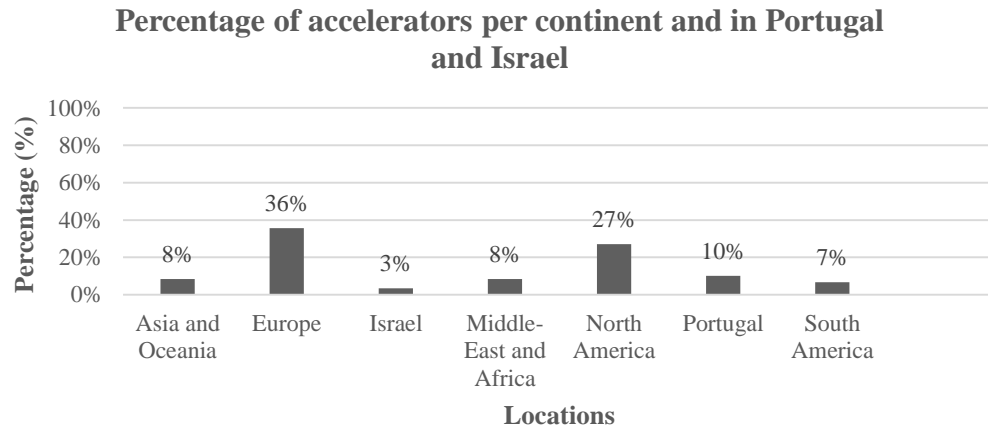


Figure II.2. Percentage of accelerators per continent and in Portugal and Israel.

II.1.2. Usage of DM to reach certain objectives

Table II.1. DM objectives: Portugal vs Europe (basic statistics).

Location/ DM objectives	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive brand awareness	3,50	1,22	3	3	3,57	0,98	4	4
Attract quality start-ups	4,33	0,82	5	4,5	3,95	0,80	4	4
Build an entrepreneurship community	4,00	1,26	5	4,5	3,90	0,89	4	4
Provide relevant content to corporates and investors	3,83	1,17	5	4	3,00	1,18	3	3
Attract quality influencers	4,00	1,26	5	4,5	2,90	1,04	3	3
Provide online support	4,33	0,52	4	4	3,48	0,98	4	4
Attract quality corporates	4,00	1,26	5	4,5	3,24	1,14	3	3
Attract quality investors	3,83	1,47	5	4,5	2,95	0,97	3	3
Support decision-making process	4,00	1,55	5	4,5	3,10	1,26	3	3
Crowdsourcing	3,17	1,72	5	3	2,29	1,27	1	2
Competition follow-up	4,00	0,89	5	4	2,90	1,14	3	3

On average, Portuguese accelerators use DM weekly to ‘drive brand awareness’, ‘build an entrepreneurship community’, ‘attract quality influencers, corporates and investors’, ‘provide online support’, ‘support decision-making process’ and ‘competition follow-up’. The objectives most commonly classified by Portuguese accelerators as 5 were ‘attract quality start-ups’, ‘build an entrepreneurship community’, ‘provide relevant content’, ‘attract quality influencers, corporates and investors’, ‘support decision-making process’, ‘crowdsourcing’ and ‘competition follow-up’ (meaning that these accelerators use DM daily to achieve these objectives).

On average, accelerators from the remaining Europe tend to use DM weekly to ‘drive brand awareness’, ‘attract quality start-ups’ and to ‘build an entrepreneurship community’. The objectives most commonly classified by the remaining Europe accelerators as a 4 were ‘drive brand awareness’, ‘attract quality start-ups’, ‘build an entrepreneurship community’ and ‘provide online support’ (meaning that these accelerators use DM weekly to achieve these objectives).

Table II.2. DM objectives: North America vs Asia & Oceania (basic statistics).

Location/ DM objectives	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive brand awareness	4,31	0,95	5	5	3,40	1,14	3	3
Attract quality start-ups	3,88	1,09	4	4	4,40	0,89	5	5
Build an entrepreneurship community	3,88	1,09	4	4	4,60	0,55	5	5
Provide relevant content to corporates and investors	3,25	1,34	4	3,5	2,60	1,67	1	3
Attract quality influencers	2,75	1,39	1	3	3,40	1,52	4	4
Provide online support	3,19	1,33	4	3	4,20	0,84	5	4
Attract quality corporates	2,94	1,34	3	3	3,00	1,58	-	3
Attract quality investors	2,88	1,36	4	3	3,20	1,48	3	3
Support decision-making process	2,81	1,42	4	3	3,20	1,48	3	3
Crowdsourcing	1,69	1,01	1	1	2,80	1,48	3	3
Competition follow-up	2,31	1,14	1	2	3,00	1,58	-	3

On average, North American accelerators tend to use DM weekly to ‘drive brand awareness’, ‘attract quality start-ups’ and ‘build an entrepreneurship community’. The objective most commonly classified by North American accelerators as 5 was ‘drive brand awareness’ (meaning that these accelerators use DM daily to drive brand awareness).

Accelerators from Asia&Oceania use DM weekly to ‘attract quality start-ups’, ‘build an entrepreneurship community’ and ‘provide online support’. The objectives most commonly classified by accelerators from Asia&Oceania as 5 were to ‘attract quality start-ups’, ‘build an entrepreneurship community’ and ‘provide online support’ (meaning that these accelerators use DM daily to achieve these objectives).

Table II.3. DM objectives: South America vs Middle-East & Africa (basic statistics).

Location/ DM objectives	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive brand awareness	4,75	0,50	5	5	4,00	0,71	4	4
Attract quality start-ups	3,25	0,96	4	3,5	3,80	0,84	4	4
Build an entrepreneurship community	3,75	0,96	3	3,5	3,40	1,34	4	4
Provide relevant content to corporates and investors	3,25	0,96	4	3,5	2,40	1,14	2	2
Attract quality influencers	3,00	0,82	3	3	2,60	0,89	2	2
Provide online support	2,75	1,26	3	3	2,60	1,82	1	2
Attract quality corporates	2,25	0,96	3	2,5	2,60	1,14	3	3
Attract quality investors	2,75	0,50	3	3	2,80	1,30	4	3
Support decision-making process	2,75	0,50	3	3	2,60	1,34	4	2
Crowdsourcing	1,75	0,96	1	1,5	2,80	1,79	1	3
Competition follow-up	2,25	1,89	1	1,5	3,00	1,58	-	3

On average, accelerators from South America use DM daily to ‘drive brand awareness’ and weekly to ‘build an entrepreneurship community’. The objective most commonly classified by South American accelerators as 5 was ‘drive brand awareness’ (meaning that these accelerators use DM daily to drive brand awareness).

On average, accelerators from Middle-East & Africa use DM weekly to ‘drive brand awareness’ and ‘attract quality start-ups’. The objective most commonly classified by South American accelerators as 4 was ‘drive brand awareness’, ‘attract quality start-ups’, ‘build an entrepreneurship community’, ‘attract quality investors’ and ‘support decision-making process’ (meaning that these accelerators use DM weekly to achieve these objectives).

II.1.3. Importance given to DM Challenges

Table II.4. DM challenges: Portugal vs Europe (basic statistics).

Location/ DM challenges	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Contact data base organization	4,17	1,60	5	5	3,57	1,03	4	4
Managing brand reputation	4,83	0,41	5	5	3,95	1,12	5	4
Ability to generate deep attendees insights	4,00	0,63	4	4	3,95	0,74	4	4
Having all marketing & communication team working towards the same goals and objectives	4,50	0,55	5	4,5	3,86	1,15	4	4

On average, accelerators from Portugal consider as an extremely important challenge ‘managing brand reputation’ and ‘having all marketing and communication team working towards the same goals and objectives’, but they also value as very important the remaining challenges. The challenges most commonly classified by Portuguese accelerators as 5 (extremely important) were ‘contact database organization’, ‘managing brand reputation’ and ‘having all marketing and communication team working towards the same goals and objectives’.

On average, accelerators from the remaining Europe consider all the challenges indicated as very important. The challenge most commonly classified by the remaining European accelerators as 5 (extremely important) was ‘managing brand reputation’.

Table II.5. DM challenges: North America vs Asia & Oceania (basic statistics).

Location/ DM challenges	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Contact data base organization	3,19	1,52	5	3,5	3,00	0,71	3	3
Managing brand reputation	4,19	0,83	5	4	4,40	0,89	5	5
Ability to generate deep attendees insights	3,81	1,17	4	4	3,80	0,84	4	4
Having all marketing & communication team working towards the same goals and objectives	3,38	1,20	4	4	3,60	0,55	4	4

On average, accelerators from North America and Asia&Oceania consider as very important challenges ‘managing brand reputation’ and ‘ability to generate deep attendees insights’. The challenges most commonly classified by North American accelerators as 5 (extremely important) were ‘contact database organization’ and ‘managing brand reputation’. The challenge most commonly classified by accelerators from Asia&Oceania as 5 (extremely important) was ‘managing brand reputation’.

Table II.6. DM challenges: South America vs Middle-East and Africa (basic statistics).

Location/ DM challenges	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Contact data base organization	3,50	1,73	4	4	3,60	1,67	5	4
Managing brand reputation	4,75	0,50	5	5	4,20	0,84	5	4
Ability to generate deep attendees insights	5,00	0	5	5	3,20	1,10	3	3
Having all marketing & communication team working towards the same goals and objectives	5,00	0	5	5	4,20	0,84	5	4

On average, accelerators from South America consider extremely important challenges ‘managing brand reputation’, ‘ability to generate deep attendees insights’ and ‘having all marketing and communication team working towards the same goals and objectives’, which were also frequently classified by South American accelerators as 5 (meaning that these accelerators consider these challenges extremely important).

On average, accelerators from Middle-East and Africa consider ‘contact database organization’, ‘managing brand reputation’ and ‘having all marketing and communication team working towards the same goals and objectives’ very important challenges, which were also frequently classified by accelerators from Middle-East&Africa as 5 (meaning that these accelerators consider these challenges extremely important).

II.1.4. Usage of digital channels to reach start-ups

Table II.7. Digital channels usage to reach start-ups: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,50	1,22	3	3	3,57	0,98	4	4
E-mail	3,67	1,03	4	4	3,48	0,93	4	4
Facebook	4,50	0,84	5	5	3,81	1,17	4	4
Twitter	4,17	0,98	5	4,5	4,33	1,11	5	5
Instagram	3,67	1,63	5	4	2,33	1,53	1	2
LinkedIn	3,17	1,83	5	3,5	3,24	1,18	4	3
YouTube	2,50	0,55	2	2,5	2,05	1,07	1	2
Slack	2,17	1,83	1	1	2,14	1,56	1	1
Flickr	1,50	0,84	1	1	1,19	0,68	1	1
Pinterest	1,00	0	1	1	1,14	0,36	1	1
Blog	2,00	1,55	1	1	2,90	1,09	3	3
Quora	1,00	0	1	1	1,38	0,74	1	1
Reddit	1,00	0	1	1	1,19	0,51	1	1

On average, accelerators from Portugal use daily Facebook, and weekly Website, E-mail, Twitter, and Instagram to reach start-ups. The channels most commonly classified by Portuguese accelerators as 5 were ‘Facebook’, ‘Twitter’, ‘Instagram’ and ‘LinkedIn’ (meaning that these accelerators use Facebook, Twitter, Instagram and LinkedIn daily to reach out start-ups).

On average, accelerators from the remaining Europe use weekly Website, Facebook and Twitter to reach start-ups. The channel most commonly classified by the remaining European accelerators as 5 was ‘Twitter’ (meaning that these accelerators use Twitter daily to reach out start-ups).

Table II.8. Digital channels usage to reach start-ups: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	4,31	0,95	5	5	3,40	1,14	3	3
E-mail	3,88	0,89	4	4	3,40	0,89	4	4
Facebook	3,75	1,24	4	4	4,60	0,555	5	5
Twitter	4,31	0,87	5	4,5	3,80	1,64	5	4
Instagram	2,94	1,53	4	3,5	2,00	1,41	1	1
LinkedIn	3,63	0,96	4	4	3,00	1,87	1	4
YouTube	1,94	0,93	1	2	2,80	1,304	4	3
Slack	2,06	1,61	1	1	2,20	1,64	1	2
Flickr	1,06	0,25	1	1	1,20	0,45	1	1
Pinterest	1,06	0,25	1	1	1,00	0	1	1
Blog	2,75	1,39	4	3	2,80	1,10	3	3
Quora	1,31	0,60	1	1	2,20	1,30	1	2
Reddit	1,38	0,81	1	1	1,40	0,89	1	1

On average, accelerators from North America use weekly their Website, E-mail, Facebook, Twitter and LinkedIn to reach start-ups. The channels most commonly classified by North American accelerators as 5 were ‘Website’ and ‘Twitter’ (meaning that these accelerators use Website and Twitter daily to reach out start-ups).

On average, accelerators from Asia&Oceania use Facebook daily to reach start-ups. The channels most commonly classified by accelerators from Asia&Oceania as 5 were ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use Facebook and Twitter daily to reach out start-ups).

Table II.9. Digital channels usage to reach start-ups: South America vs Middle-East and Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	4,75	0,50	5	5	4,00	0,71	4	4
E-mail	3,75	0,96	3	3,5	4,00	1,00	5	4
Facebook	4,50	0,58	5	4,5	4,00	1,00	5	4
Twitter	3,00	1,63	3	3	3,60	1,52	5	4
Instagram	2,50	1,92	1	2	2,80	1,79	1	3
LinkedIn	4,25	0,96	5	4,5	2,40	1,14	2	2
YouTube	3,00	1,63	3	3	2,20	0,84	3	2
Slack	2,75	2,06	1	2,5	1,40	0,89	1	1
Flickr	1,00	0,00	1	1	1,00	0	1	1
Pinterest	1,00	0,00	1	1	1,00	0	1	1
Blog	3,25	1,71	-	3,5	1,80	1,10	1	1
Quora	1,00	0,00	1	1	1,00	0,00	1	1
Reddit	1,00	0,00	1	1	1,00	0,00	1	1

On average, accelerators from South America use their Website and Facebook daily to reach start-ups. The channels most commonly classified by South American accelerators as 5 were ‘Website’, ‘Facebook’ and ‘LinkedIn’ (meaning that these accelerators use Website, Facebook and LinkedIn daily to reach out start-ups).

On average, accelerators from the Middle-East&Africa use weekly Website, E-mail, Facebook and Twitter to reach start-ups. The channels most commonly classified by accelerators from Middle-East&Africa as 5 were ‘E-mail’, ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use E-mail, Facebook and Twitter daily to reach out start-ups).

II.1.5. Usage of digital channels to reach corporates

Table II.10. Digital channels usage to reach corporates: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,33	1,51	4,00	4,00	3,48	1,33	4,00	4,00
E-mail	4,00	0,89	4,00	4,00	3,62	1,02	4,00	4,00
Facebook	3,83	1,33	5,00	4,00	2,38	1,36	1,00	3,00
Twitter	3,50	1,38	4,00	4,00	3,29	1,35	3,00	3,00
Instagram	2,33	1,63	1,00	2,00	1,57	1,25	1,00	1,00
LinkedIn	3,00	1,67	4,00	3,50	3,00	1,45	4,00	3,00
YouTube	2,17	1,17	2,00	2,00	1,43	0,75	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,33	0,80	1,00	1,00
Flickr	1,17	0,41	1,00	1,00	1,05	0,22	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Blog	2,00	1,55	1,00	1,00	2,29	1,27	1,00	3,00
Quora	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00

On average, accelerators coming from Portugal use weekly their E-mail, Facebook and Twitter to reach corporates. The channel most commonly classified by Portuguese accelerators as 5 was ‘Facebook’ (meaning that these accelerators use Facebook daily to reach out corporates).

On average, accelerators from the remaining Europe use weekly their E-mail to reach corporates. The channels most commonly classified by the remaining European accelerators as 4 were ‘Website’, ‘E-mail’ and ‘LinkedIn’ (meaning that these accelerators use Website, E-mail and LinkedIn weekly to reach out corporates).

Table II.11. Digital channels usage to reach corporates: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,31	1,30	4,00	4,00	3,00	1,58	-	3,00
E-mail	3,56	1,09	4,00	4,00	3,40	1,52	4,00	4,00
Facebook	2,19	1,38	1,00	1,50	1,80	1,10	1,00	1,00
Twitter	2,50	1,41	1,00	2,50	2,40	1,34	1,00	3,00
Instagram	1,56	0,89	1,00	1,00	1,20	0,45	1,00	1,00
LinkedIn	2,75	1,34	4,00	3,00	3,00	1,87	1,00	4,00
YouTube	1,31	0,48	1,00	1,00	1,60	0,89	1,00	1,00
Slack	1,13	0,50	1,00	1,00	1,40	0,89	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,20	0,45	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,00	1,26	1,00	1,00	2,00	1,00	1,00	2,00
Quora	1,00	0,00	1,00	1,00	1,80	1,10	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00

On average, accelerators from North America use their E-mail weekly to reach corporates. The channels most commonly classified by North American accelerators as 4 were ‘Website’, ‘E-mail’ and ‘LinkedIn’ (meaning that these accelerators use Website, E-mail and LinkedIn weekly to reach out corporates).

On average, accelerators from Asia & Oceania use monthly Website, E-mail and LinkedIn to reach corporates. The channel most commonly classified by accelerators from Asia & Oceania as 4 was ‘E-mail’ (meaning that these accelerators use E-mail weekly to reach out corporates).

Table II.12. Digital channels to reach corporates: South America vs Middle-East & Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,50	1,91	5,00	4,00	3,80	0,84	4,00	4,00
E-mail	3,25	1,71	-	3,50	3,40	1,14	3,00	3,00
Facebook	2,50	1,91	1,00	2,00	3,20	1,30	2,00	3,00
Twitter	2,50	1,91	1,00	2,00	3,40	1,14	3,00	3,00
Instagram	2,50	1,91	1,00	2,00	2,20	1,79	1,00	1,00
LinkedIn	3,25	2,06	5,00	3,50	2,80	1,30	4,00	3,00
YouTube	2,25	1,89	1,00	1,50	1,00	0,00	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,00	2,00	1,00	1,00	1,20	0,45	1,00	1,00
Quora	1,75	1,50	1,00	1,00	1,00	0,00	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00

On average, accelerators from South America use their Website weekly to reach corporates. The channels most commonly classified by South American accelerators as 5 were ‘Website’ and ‘LinkedIn’ (meaning that these accelerators use Website and LinkedIn daily to reach out corporates).

On average, accelerators from Middle-East&Africa use their Website weekly to reach corporates. The channels most commonly classified by accelerators from Middle-East&Africa as 4 were ‘Website’ and ‘LinkedIn’ (meaning that these accelerators use Website and LinkedIn weekly to reach out corporates).

II.1.6. Usage of digital channels to reach investors

Table II.13. Digital channels usage to reach investors: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,67	1,51	5,00	4,00	3,00	1,41	4,00	3,00
E-mail	3,67	1,21	3,00	3,50	3,29	1,10	4,00	4,00
Facebook	3,50	1,97	5,00	4,50	2,10	1,30	1,00	2,00
Twitter	3,50	1,97	5,00	4,50	2,52	1,50	1,00	2,00
Instagram	2,83	1,60	3,00	3,00	1,24	0,89	1,00	1,00
LinkedIn	2,67	1,86	1,00	2,50	2,67	1,39	1,00	3,00
YouTube	1,50	0,55	2,00	1,50	1,24	0,54	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,48	0,98	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Blog	2,00	1,55	1,00	1,00	1,95	1,20	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,14	0,48	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00

On average, accelerators from Portugal use weekly their Website, E-mail, Facebook and Twitter to reach investors. The channels most commonly classified by Portuguese accelerators as 5 were ‘Website’, ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use Website, Facebook and Twitter daily to reach out investors).

On average, accelerators from the remaining Europe use monthly their Website and E-mail to reach investors. The channels most commonly classified by the remaining European accelerators as 4 were ‘Website’ and ‘E-mail’ (meaning that these accelerators use Website and E-mail weekly to reach out investors).

Table II.14. Digital channels to reach investors: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,38	1,41	4,00	4,00	3,00	1,22	3,00	3,00
E-mail	3,31	1,08	3,00	3,00	3,80	0,84	3,00	4,00
Facebook	2,00	1,21	1,00	2,00	2,20	1,10	3,00	3,00
Twitter	2,44	1,31	1,00	2,50	2,40	1,34	1,00	3,00
Instagram	1,50	0,89	1,00	1,00	1,40	0,89	1,00	1,00
LinkedIn	2,13	1,15	1,00	2,00	3,00	1,87	1,00	4,00
YouTube	1,38	0,50	1,00	1,00	2,00	1,41	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,20	0,45	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,20	0,45	1,00	1,00
Blog	1,94	1,12	1,00	1,50	2,60	1,67	1,00	3,00
Quora	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00

On average, accelerators from North America consider to use their Website and E-mail monthly to reach investors. The channel most commonly classified by North American accelerators as 4 was ‘Website’ (meaning that these accelerators use Website weekly to reach out investors).

On average, accelerators from Asia&Oceania use weekly their E-mail to reach investors. The channels most commonly classified by accelerators from Asia&Oceania as 3 were ‘Website’, ‘E-mail’ and ‘Facebook’ (meaning that these accelerators use Website, E-mail and Facebook monthly to reach out investors).

Table II.15. Digital channels to reach investors: South America vs Middle-East and Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	4,25	0,96	5,00	4,50	3,00	1,22	3,00	3,00
E-mail	3,50	1,29	-	3,50	3,80	0,84	3,00	4,00
Facebook	3,25	2,06	5,00	3,50	2,40	1,14	2,00	2,00
Twitter	2,75	1,71	-	2,50	2,40	1,34	3,00	3,00
Instagram	2,00	2,00	1,00	1,00	1,60	1,34	1,00	1,00
LinkedIn	3,75	1,50	5,00	4,00	2,20	1,10	3,00	3,00
YouTube	2,75	1,71	-	2,50	1,00	0,00	1,00	1,00
Slack	2,00	2,00	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,25	1,89	1,00	1,50	1,00	0,00	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00

On average, accelerators from South America use weekly their Website, E-mail and LinkedIn to reach investors. The channels most commonly classified by South American accelerators as 5 were ‘Website’, ‘E-mail’, ‘Twitter’ and ‘LinkedIn’ (meaning that these accelerators use Website, E-mail, Twitter and LinkedIn daily to reach out investors).

On average, accelerators from Middle-East&Africa use E-mail weekly to reach investors. The channels most commonly classified by accelerators from Middle-East&Africa as 3 were ‘Website’, ‘Facebook’ and ‘LinkedIn’ (meaning that these accelerators use Website, Facebook and LinkedIn monthly to reach out investors).

II.1.7. Usage of digital channels to reach the government

Table II.16. Digital channels usage to reach the government: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,17	1,72	5,00	3,00	2,19	1,29	1	2
E-mail	3,33	1,03	3,00	3,00	2,29	1,19	1	2
Facebook	2,33	1,21	3,00	2,50	1,38	0,67	1	1
Twitter	2,17	1,17	1,00	2,00	1,57	0,81	1	1
Instagram	1,50	0,55	2,00	1,50	1,19	0,68	1	1
LinkedIn	2,17	1,17	2,00	2,00	1,62	1,02	1	1
YouTube	1,50	0,55	2,00	1,50	1,14	0,36	1	1
Slack	1,00	0,00	1,00	1,00	1,05	0,22	1	1
Flickr	1,00	0,00	1,00	1,00	1,05	0,22	1	1
Pinterest	1,00	0,00	1,00	1,00	1,05	0,22	1	1
Blog	1,83	1,33	1,00	1,00	1,62	1,02	1	1
Quora	1,00	0,00	1,00	1,00	1,05	0,22	1	1
Reddit	1,00	0,00	1,00	1,00	1,05	0,22	1	1

On average, accelerators from Portugal use monthly their Website and E-mail to reach the government. The channel most commonly classified by Portuguese accelerators as 5 was ‘Website’ (meaning that these accelerators use Website daily to reach out the government).

On average, accelerators from the remaining Europe use Website and E-mail occasionally to reach out the government. All channels were most commonly classified by European accelerators as 1 (meaning that these accelerators use none of these channels to reach out the government).

Table II.17. Digital channels usage to reach the government: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,19	1,47	1,00	1,50	2,80	1,10	3,00	3,00
E-mail	1,94	1,29	1,00	1,00	3,60	1,14	4,00	4,00
Facebook	1,38	0,72	1,00	1,00	2,40	1,34	1,00	3,00
Twitter	1,63	0,96	1,00	1,00	2,00	1,41	1,00	1,00
Instagram	1,19	0,54	1,00	1,00	1,40	0,89	1,00	1,00
LinkedIn	1,25	0,45	1,00	1,00	2,00	1,41	1,00	1,00
YouTube	1,06	0,25	1,00	1,00	1,60	0,89	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Blog	1,44	0,89	1,00	1,00	1,80	1,10	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00

On average, accelerators from North America use DM occasionally (1 to 3 times per year) through Website and E-mail to reach the government. All channels were most commonly classified by North American accelerators as 1 (meaning that these accelerators use none of these channels to reach out the government).

On average, accelerators from Asia&Oceania weekly use E-mail to reach the government. The channel most commonly classified by accelerators from Asia&Oceania as 4 was ‘E-mail’ (meaning that these accelerators use E-mail weekly to reach out the government).

Table II.18. Digital channels usage to reach the government: South America vs Middle-East & Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,75	2,06	1,00	2,50	2,20	1,79	1,00	1,00
E-mail	2,75	1,71	-	2,50	1,80	0,45	2,00	2,00
Facebook	2,25	1,89	1,00	1,50	1,40	0,89	1,00	1,00
Twitter	2,50	1,91	1,00	2,00	1,40	0,89	1,00	1,00
Instagram	2,00	2,00	1,00	1,00	1,40	0,89	1,00	1,00
LinkedIn	2,50	1,91	1,00	2,00	1,40	0,89	1,00	1,00
YouTube	2,00	2,00	1,00	1,00	1,00	0,00	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,00	2,00	1,00	1,00	1,00	0,00	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00

Reddit	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
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On average, accelerators from South America are using monthly their Website, E-mail, Twitter and LinkedIn to reach out the government. All channels were most commonly classified by South American accelerators as 1 (meaning that these accelerators use none of these channels to reach out the government). On average, accelerators from Middle-East & Africa use only occasionally their Website and E-mail to reach this target audience. The channel most commonly classified by accelerators from Middle-East & Africa as 2 was ‘E-mail’ (meaning that these accelerators use E-mail occasionally to reach out the government).

II.1.8. Usage of digital channels to reach universities

Table II.19. Digital channels usage to reach universities: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,33	1,37	3,00	3,50	2,19	1,29	1,00	2,00
E-mail	3,67	0,82	3,00	3,50	2,38	1,12	3,00	3,00
Facebook	3,83	0,98	3,00	3,50	1,90	1,09	1,00	1,00
Twitter	3,67	1,51	5,00	4,00	2,10	1,22	1,00	2,00
Instagram	3,00	1,90	5,00	3,00	1,43	0,98	1,00	1,00
LinkedIn	2,67	1,86	1,00	2,50	1,90	1,14	1,00	1,00
YouTube	1,83	0,98	1,00	1,50	1,38	0,92	1,00	1,00
Slack	1,33	0,82	1,00	1,00	1,19	0,68	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00
Blog	2,00	1,55	1,00	1,00	1,52	0,87	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,14	0,48	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,05	0,22	1,00	1,00

On average, accelerators from Portugal are using weekly E-mail, Facebook and Twitter to reach out universities. The channels most commonly classified by Portuguese accelerators as 5 were ‘Twitter’ and ‘Instagram’ (meaning that these accelerators use Twitter and Instagram daily to reach out to universities).

On average, accelerators from the remaining Europe use occasionally (1 to 3 times per year) Website, E-mail, Facebook, Twitter, LinkedIn or Blog to reach universities. The channels most commonly classified by the remaining European accelerators as 3 were ‘E-mail’ (meaning that these accelerators use E-mail monthly to reach out to universities).

Table II.20. Digital channels usage to reach universities: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,25	1,44	1,00	2,00	1,80	1,30	1,00	1,00
E-mail	2,63	1,26	3,00	3,00	2,40	1,52	2,00	2,00
Facebook	2,06	1,00	1,00	2,00	1,60	0,89	1,00	1,00
Twitter	2,25	1,24	1,00	2,50	1,60	0,89	1,00	1,00
Instagram	1,50	0,82	1,00	1,00	1,40	0,89	1,00	1,00
LinkedIn	1,75	0,86	1,00	1,50	1,80	1,79	1,00	1,00
YouTube	1,19	0,40	1,00	1,00	1,60	0,89	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,40	0,89	1,00	1,00
Blog	1,50	0,89	1,00	1,00	2,00	1,73	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Reddit	1,06	0,25	1,00	1,00	1,40	0,89	1,00	1,00

On average, accelerators from North America use E-mail monthly to reach universities. The channel most commonly classified by North American accelerators as 3 was ‘E-mail’ (meaning that these accelerators use E-mail monthly to reach out to universities).

On average, accelerators from Asia&Oceania use Website, E-mail, LinkedIn and Blog occasionally throughout the year to reach universities. The channel most commonly classified by accelerators from Asia&Oceania as 2 were ‘E-mail’ (meaning that these accelerators use E-mail occasionally to reach out to universities).

Table II.21. Digital channels usage to reach universities: South America vs Middle-East & Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,25	2,06	5,00	3,50	3,60	0,89	3,00	3,00
E-mail	2,75	1,71	-	2,50	4,00	0,71	4,00	4,00
Facebook	3,25	2,06	5,00	3,50	4,00	0,71	4,00	4,00
Twitter	2,75	2,06	1,00	2,50	3,00	1,58	-	3,00
Instagram	2,25	1,89	1,00	1,50	2,40	1,95	1,00	1,00
LinkedIn	3,00	1,83	-	3,00	2,00	1,41	1,00	1,00
YouTube	2,00	2,00	1,00	1,00	1,40	0,89	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,25	1,89	1,00	1,50	1,40	0,89	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00

On average, accelerators from South America use Website, E-mail, Facebook, Twitter and LinkedIn monthly to reach out universities. The channels most commonly classified by South American accelerators as 5 were ‘Website’ and ‘Facebook (meaning that these accelerators use Website and Facebook daily to reach out universities).

On average, accelerators from Middle-East&Africa use weekly their Website, E-mail and Facebook to reach universities. The channels most commonly classified by accelerators from Middle-East&Africa as 4 were ‘E-mail’ and ‘Facebook’ (meaning that these accelerators use E-mail and Facebook weekly to reach out to universities).

II.1.9. Usage of digital channels to reach the media

Table II.22. Digital channels usage to reach the media: Portugal vs Europe (basic statistics).

Location/ Digital channels	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	4,00	0,89	5,00	4,00	3,00	1,55	4	3
E-mail	4,00	0,89	3,00	4,00	2,90	0,94	3	3
Facebook	4,00	0,89	3,00	4,00	2,05	1,40	1	1
Twitter	3,67	1,51	5,00	4,00	2,86	1,56	1	3
Instagram	3,00	1,90	5,00	3,00	1,48	1,08	1	1
LinkedIn	3,33	1,86	4,00	4,00	2,38	1,24	3	3
YouTube	2,17	0,75	2,00	2,00	1,62	0,97	1	1
Slack	1,00	0,00	1,00	1,00	1,19	0,68	1	1
Flickr	1,00	0,00	1,00	1,00	1,10	0,44	1	1
Pinterest	1,00	0,00	1,00	1,00	1,05	0,22	1	1
Blog	2,00	1,55	1,00	1,00	1,71	1,06	1	1
Quora	1,00	0,00	1,00	1,00	1,14	0,48	1	1
Reddit	1,00	0,00	1,00	1,00	1,10	0,44	1	1

On average, accelerators from Portugal use Website, E-mail, Facebook and Twitter weekly to reach out media. The channels most commonly classified by Portuguese accelerators as 5 were ‘Website’, ‘Twitter’ and ‘Instagram’ (meaning that these accelerators use Website, Twitter and Instagram daily to reach out to media).

On average, accelerators from the remaining Europe reach out media monthly through Website, E-mail and Twitter. The channel most commonly classified by the remaining European accelerators as 4 was ‘Website’ (meaning that these accelerators use Website weekly to reach out to media).

Table II.23. Digital channels usage to reach the media: North America vs Asia & Oceania (basic statistics).

Location/ Digital channels	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,06	1,34	2,00	3,00	2,60	1,14	3,00	3,00
E-mail	3,00	1,03	3,00	3,00	3,20	1,10	3,00	3,00
Facebook	2,00	1,15	1,00	1,50	2,60	1,67	1,00	3,00
Twitter	2,50	1,21	3,00	3,00	2,20	1,79	1,00	1,00
Instagram	1,25	0,77	1,00	1,00	1,60	1,34	1,00	1,00
LinkedIn	1,50	0,73	1,00	1,00	2,20	1,79	1,00	1,00
YouTube	1,31	0,48	1,00	1,00	1,80	1,30	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Blog	1,63	1,09	1,00	1,00	1,80	1,30	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,60	1,34	1,00	1,00

On average, accelerators from North America use Website, E-mail and Twitter monthly to reach media. The channels most commonly classified by North American accelerators as 3 were ‘E-mail’ and ‘Twitter’ (meaning that these accelerators use E-mail and Twitter monthly to reach out media).

On average, accelerators from Asia & Oceania use Website, E-mail and Facebook monthly to reach the media. The channels most commonly classified by accelerators from Asia & Oceania as 3 were ‘Website’ and ‘E-mail’ (meaning that these accelerators use Website and E-mail monthly to reach out media).

Table II.24. Digital channels usage to reach the media: South America vs Middle-East & Africa (basic statistics).

Location/ Digital channels	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,75	1,89	5,00	4,50	3,00	1,58	-	3,00
E-mail	3,25	1,26	3,00	3,00	3,20	0,84	4,00	3,00
Facebook	3,50	1,73	4,00	4,00	3,20	1,30	2,00	3,00
Twitter	2,50	1,91	1,00	2,00	2,80	1,64	2,00	2,00
Instagram	2,00	2,00	1,00	1,00	2,00	1,73	1,00	1,00
LinkedIn	2,50	1,91	1,00	2,00	1,80	1,10	1,00	1,00
YouTube	2,50	1,91	1,00	2,00	1,00	0,00	1,00	1,00
Slack	1,50	1,00	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	2,25	1,89	1,00	1,50	1,20	0,45	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00

On average, accelerators from South America use Website and Facebook weekly to reach out media. The channel most commonly classified by South American accelerators as 5 was ‘Website’ (meaning that these accelerators use Website daily to reach out media).

On average, accelerators from Middle-East and Africa use monthly their Website, E-mail, Facebook and Twitter to reach media. The channel most commonly classified by accelerators from Middle-East and Africa as 4 was ‘E-mail’ (meaning that these accelerators use E-mail weekly to reach out media).

II.1.10. Usage of DM to achieve E-mail Marketing objectives

Table II.25. E-mail marketing objectives: Portugal vs Europe (basic statistics).

Location/ E-mail objectives	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,17	0,75	3,00	3,00	2,81	1,17	3,00	3,00
Improve website's visitor experience	2,67	0,82	2,00	2,50	1,86	1,01	1,00	1,00
Increase number of social media followers	3,50	1,05	4,00	3,50	2,14	0,91	3,00	2,00
Selling a service	3,17	1,47	4,00	3,50	2,81	1,40	4,00	3,00
Provide information regarding what your organization is doing	3,83	0,41	4,00	4,00	3,43	0,98	3,00	3,00
Enhance loyalty towards the brand	3,67	0,52	4,00	4,00	2,57	1,16	3,00	3,00
Lead generation	3,67	0,52	4,00	4,00	3,14	1,39	3,00	3,00

On average, accelerators from Portugal use E-mail marketing weekly to ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’, which were frequently classified by Portuguese accelerators as 4 (meaning that these accelerators use weekly E-mail marketing to reach these objectives).

On average, accelerators from the remaining Europe use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘selling a service’, ‘provide information regarding what the organization is doing’,

‘enhance loyalty towards the brand’ and ‘lead generation’, which were frequently classified by European accelerators as 3 (meaning that these accelerators use monthly E-mail marketing to reach these objectives).

Table II.26. E-mail marketing objectives: North America vs Asia & Oceania (basic statistics).

Location/ E-mail objectives	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	2,88	0,89	3,00	3,00	2,81	1,17	3,00	3,00
Improve website's visitor experience	2,00	1,03	1,00	2,00	1,86	1,01	1,00	1,00
Increase number of social media followers	2,63	1,15	3,00	3,00	2,14	0,91	3,00	2,00
Selling a service	1,88	1,09	1,00	1,50	2,81	1,40	4,00	3,00
Provide information regarding what your organization is doing	3,31	0,87	4,00	3,00	3,43	0,98	3,00	3,00
Enhance loyalty towards the brand	2,75	1,06	3,00	3,00	2,57	1,16	3,00	3,00
Lead generation	3,06	1,06	3,00	3,00	3,14	1,39	3,00	3,00

On average, accelerators from North America use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The objective most commonly classified by North American accelerators as 4 (meaning E-mail is used weekly to achieve this objective) was ‘provide information regarding what the organization is doing’.

On average, accelerators from Asia&Oceania use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The objective most commonly classified by accelerators from Asia&Oceania as 4 (meaning E-mail is used weekly to achieve this objective) was ‘selling a service’.

Table II.27. E-mail marketing objectives: South America vs Middle-East & Africa (basic statistics).

Location/ E-mail objectives	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	2,00	1,41	1,00	1,50	3,00	1,41	4,00	4,00
Improve website's visitor experience	2,00	0,82	2,00	2,00	3,20	1,64	4,00	4,00
Increase number of social media followers	3,00	0,82	3,00	3,00	2,80	1,48	3,00	3,00
Selling a service	1,25	0,50	1,00	1,00	2,20	1,30	1,00	2,00
Provide information regarding what your organization is doing	4,00	0,82	4,00	4,00	3,20	1,10	3,00	3,00
Enhance loyalty towards the brand	3,00	1,41	4,00	3,50	3,20	0,84	4,00	3,00
Lead generation	2,75	1,26	3,00	3,00	3,00	1,41	4,00	4,00

On average, accelerators from South America use E-mail marketing weekly to ‘provide information regarding what the organization is doing’, which was frequently classified by South American accelerators as 4 (meaning that these accelerators use weekly E-mail marketing to reach this objective).

On average, accelerators from Middle-East & Africa use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘improve website’s visitor experience’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The objectives most commonly classified by accelerators from Middle-East & Africa as 4 (meaning E-mail is used weekly to achieve these objectives) were ‘drive traffic to the organization’s website’, ‘improve website’s visitor experience’, ‘enhance loyalty towards the brand’ and ‘lead generation’.

II.1.11. E-mail KPIs used

Table II.28. E-mail KPIs used: Portugal vs Europe (basic statistics).

Location/ E-mail KPIs	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Number of emails sent	0,33	0,52	0,00	0,00	0,43	0,51	0,00	0,00
Email Open rate	0,50	0,55	1,00	0,50	0,76	0,44	1,00	1,00
Click-through rate	0,33	0,52	0,00	0,00	0,52	0,51	1,00	1,00
Bounce rate	0,17	0,41	0,00	0,00	0,14	0,36	0,00	0,00
List Growth rate	0,33	0,52	0,00	0,00	0,24	0,44	0,00	0,00
Email Sharing/Forwarding Rate	0,17	0,41	0,00	0,00	0,05	0,22	0,00	0,00
Overall ROI	0,00	0,00	0,00	0,00	0,14	0,36	0,00	0,00
Conversion Rate	0,33	0,52	0,00	0,00	0,57	0,51	1,00	1,00
Hurdle Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Delivered rate	0,33	0,52	0,00	0,00	0,05	0,22	0,00	0,00
Unsubscribe Rate	0,17	0,41	0,00	0,00	0,19	0,40	0,00	0,00

On average, accelerators from Portugal use as E-mail KPI: ‘email open rate’, which was also the most common E-mail KPI classified by Portuguese accelerators as being used by them.

On average, accelerators from the remaining Europe use as E-mail KPIs: ‘E-mail open rate’, ‘click-through rate’ and ‘conversion rate’, which were also the most common E-mail KPIs classified by European accelerators as being used by them.

Table II.29. E-mail KPIs used: North America vs Asia & Oceania (basic statistics).

Location/ E-mail KPIs	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Number of emails sent	0,19	0,40	0,00	0,00	0,20	0,45	0,00	0,00
Email Open rate	0,69	0,48	1,00	1,00	0,60	0,55	1,00	1,00
Click-through rate	0,56	0,51	1,00	1,00	0,80	0,45	1,00	1,00
Bounce rate	0,13	0,34	0,00	0,00	0,40	0,55	0,00	0,00
List Growth rate	0,25	0,45	0,00	0,00	0,40	0,55	0,00	0,00

Email Sharing/Forwarding Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Overall ROI	0,13	0,34	0,00	0,00	0,00	0,00	0,00	0,00
Conversion Rate	0,25	0,45	0,00	0,00	0,40	0,55	0,00	0,00
Hurdle Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Delivered rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Unsubscribe Rate	0,25	0,45	0,00	0,00	0,20	0,45	0,00	0,00

On average, accelerators from North America and Asia & Oceania prefer to use as E-mail KPIs: ‘email open rate’ and ‘click-through rate’, which were also the most common E-mail KPIs classified by accelerators from North America and Asia & Oceania as being used by them.

Table II.30. E-mail KPIs used: South America vs Middle-East & Africa (basic statistics).

Location/ E-mail KPIs	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Number of emails sent	0,25	0,50	0,00	0,00	0,00	0,00	0,00	0,00
Email Open rate	0,50	0,58	0,00	0,50	1,00	0,00	1,00	1,00
Click-through rate	0,75	0,50	1,00	1,00	0,60	0,55	1,00	1,00
Bounce rate	0,00	0,00	0,00	0,00	0,20	0,45	0,00	0,00
List Growth rate	0,50	0,58	0,00	0,50	0,00	0,00	0,00	0,00
Email Sharing/Forwarding Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Overall ROI	0,25	0,50	0,00	0,00	0,00	0,00	0,00	0,00
Conversion Rate	0,00	0,00	0,00	0,00	0,40	0,55	0,00	0,00
Hurdle Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Delivered rate	0,25	0,50	0,00	0,00	0,20	0,45	0,00	0,00
Unsubscribe Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

On average, accelerators from South America use as E-mail KPIs: ‘email open rate’, ‘click-through rate’ and ‘list growth rate’. The most common E-mail KPIs classified by South American accelerators as being used by them were: ‘click-through rate’.

On average, accelerators from South America use as E-mail KPIs: ‘e-mail open rate’, ‘click-through rate’, which were also the most common E-mail KPIs classified by South American accelerators as being used by them.

II.1.12. Number of E-mail KPIs used

Table II.31. Number of E-mail KPIs used (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	2	0,89	2	2
Europe	2,05	0,92	3,00	2,00
North America	1,56	0,63	1,00	1,50
Asia and Oceania	2	1,00	1	2
South America	1,75	0,96	1,00	1,50
Middle-East and Africa	1,60	0,55	2,00	2,00

On average, accelerators from North America, South America and Middle-East & Africa tend to use two or less E-mail KPIs, while accelerators from Europe and Asia & Oceania tend to use three E-mail KPIs.

Accelerators from North America, Asia & Oceania and South America most frequently classified the number of E-mail KPIs used as being 2 or less. Accelerators from Portugal and Middle-East & Africa most frequently classified the number of E-mail KPIs used as being 3. European accelerators most frequently classified the number of E-mail KPIs used as being more than 3.

II.1.13. Frequency of evaluating E-mail Marketing strategy

Table II.32. Frequency of evaluating E-mail Marketing strategy (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	0,17	0,41	0,00	0,00
Europe	0,90	0,70	1,00	1,00
North America	0,94	0,57	1,00	1,00
Asia and Oceania	1,00	1,00	2,00	1,00
South America	1,00	0,82	1,00	1,00
Middle-East and Africa	0,60	0,55	1,00	1,00

On average, accelerators from Portugal evaluate their E-mail marketing strategy weekly/monthly, which was also the most frequently classification by Portuguese accelerators on the frequency of E-mail’s strategy evaluation.

On average, accelerators from Europe, North America, Asia & Oceania, South America and Middle-East & Africa evaluate their E-mail marketing strategy quarterly. Accelerators from Europe, North America, South America and Middle-East and Africa most commonly classified their E-mail's strategy evaluation as being quarterly. Accelerators from Asia & Oceania most commonly classified their E-mail's strategy evaluation as being semesterly or yearly.

II.1.14. Usage of DM to achieve Facebook Marketing objectives

Table II.33. Facebook marketing objectives: Portugal vs Europe (basic statistics).

Location/ Facebook objectives	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,83	1,33	5,00	4,00	3,14	1,46	4,00	3,00
Improve website's visitor experience	4,00	1,26	5,00	4,50	2,19	1,36	1,00	2,00
Increase number of social media followers	4,67	0,52	5,00	5,00	3,33	1,43	4,00	4,00
Selling a service	3,17	1,47	4,00	3,50	2,52	1,33	1,00	3,00
Provide information regarding what your organization is doing	4,33	0,52	4,00	4,00	3,52	1,47	4,00	4,00
Enhance loyalty towards the brand	4,50	0,84	5,00	5,00	2,90	1,64	1,00	3,00
Lead generation	4,17	0,98	5,00	4,50	2,81	1,44	1,00	3,00

On average, accelerators from Portugal are using Facebook marketing daily to 'increase the number of social media followers' and to 'enhance loyalty towards the brand', which were frequently classified by Portuguese accelerators as 5 (meaning that these accelerators use daily Facebook marketing to reach these objectives).

On average, accelerators from the remaining Europe use Facebook marketing weekly to 'provide information regarding what the organization is doing', which was frequently classified as being 4 (meaning that European accelerators use weekly Facebook marketing to reach this objective).

Table II.34. Facebook marketing objectives: North America vs Asia & Oceania (basic statistics).

Location/ Facebook objectives	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,25	1,34	4,00	4,00	4,20	0,84	4,00	4,00
Improve website's visitor experience	2,19	1,22	1,00	2,00	3,40	1,82	5,00	4,00
Increase number of social media followers	2,94	1,39	4,00	3,50	3,60	1,67	5,00	4,00
Selling a service	1,81	1,28	1,00	1,00	3,40	1,82	5,00	4,00
Provide information regarding what your organization is doing	3,38	1,26	4,00	3,50	4,00	1,00	3,00	4,00
Enhance loyalty towards the brand	3,06	1,44	4,00	3,50	3,40	1,67	3,00	3,00
Lead generation	2,69	1,30	3,00	3,00	4,00	1,00	3,00	4,00

On average, accelerators from North America use Facebook marketing monthly to ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘provide information regarding what the organization is doing’, enhance loyalty towards the brand’ and ‘lead generation’. Apart from the latest objective, all the previous objectives were the most commonly Facebook objectives classified by accelerators from this region as being 4 (meaning that these accelerators use Facebook marketing weekly to reach these objectives).

On average, accelerators from Asia&Oceania use Facebook marketing weekly to ‘drive traffic to the organization’s website’, ‘provide information regarding what the organization is doing’ and ‘lead generation’. The latest two objectives were most commonly classified by accelerators from this region as being 3 (meaning that these accelerators use Facebook marketing monthly to reach these objectives).

Table II.35. Facebook marketing objectives: South America vs Middle-East & Africa (basic statistics).

Location/ Facebook objectives	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	4,00	0,82	4,00	4,00	3,40	1,52	4,00	4,00
Improve website's visitor experience	3,50	1,29	-	3,50	3,20	1,64	4,00	4,00

Increase number of social media followers	4,00	0,82	4,00	4,00	3,20	1,30	2,00	3,00
Selling a service	2,50	1,91	1,00	2,00	2,40	1,95	1,00	1,00
Provide information regarding what your organization is doing	4,00	0,82	4,00	4,00	3,80	1,10	4,00	4,00
Enhance loyalty towards the brand	3,50	1,29	-	3,50	3,80	1,30	5,00	4,00
Lead generation	3,50	1,73	4,00	4,00	3,40	1,52	4,00	4,00

On average, accelerators from South America use Facebook marketing weekly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’, which were also the most commonly Facebook objectives classified by accelerators from this region as 4 (meaning that these accelerators use Facebook marketing weekly to reach these objectives).

On average, accelerators from Middle-East and Africa use Facebook marketing weekly to ‘provide information regarding what the organization is doing’ and ‘enhance loyalty towards the brand’, which were also the most commonly Facebook objectives classified by accelerators from this region as 4 (meaning that these accelerators use Facebook marketing weekly to reach these objectives).

II.1.15. Usage of Facebook KPIs

Table II.36. Facebook KPIs usage: Portugal vs Europe (basic statistics).

Location/ Facebook KPIs	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Page likes	1,00	0,00	1,00	1,00	0,57	0,51	1,00	1,00
Post reach	0,83	0,41	1,00	1,00	0,48	0,51	0,00	0,00
Engagement	0,83	0,41	1,00	1,00	0,67	0,48	1,00	1,00
Page impressions	0,33	0,52	0,00	0,00	0,29	0,46	0,00	0,00
Shares	0,33	0,52	0,00	0,00	0,52	0,51	1,00	1,00

On average, accelerators from Portugal use as Facebook marketing KPIs: ‘page likes’, ‘post reach’ and ‘engagement’, which were also the most common Facebook KPIs classified by Portuguese accelerators as being used by them.

On average, accelerators from the remaining Europe use as Facebook KPIs: ‘page likes’, ‘engagement’ and ‘number of shares’, which were also the most common Facebook KPIs classified by European accelerators as being used by them.

Table II.37. Facebook KPIs usage: North America vs Asia & Oceania (basic statistics).

Location/ Facebook KPIs	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Page likes	0,44	0,51	0,00	0,00	0,80	0,45	1,00	1,00
Post reach	0,50	0,52	0,00	0,50	0,40	0,55	0,00	0,00
Engagement	0,56	0,51	1,00	1,00	0,60	0,55	1,00	1,00
Page impressions	0,25	0,45	0,00	0,00	0,40	0,55	0,00	0,00
Shares	0,25	0,45	0,00	0,00	0,60	0,55	1,00	1,00

On average, accelerators from North America use as Facebook marketing KPIs: ‘post reach’ and ‘engagement’. The most common Facebook KPIs classified by North American accelerators as being used by them were ‘engagement’.

On average, accelerators from Asia&Oceania use as Facebook marketing KPIs: ‘page likes’, ‘engagement’ and ‘number of shares’, which were also the most common Facebook KPIs classified by accelerators from Asia&Oceania as being used by them.

Table II.38. Facebook KPIs usage: South America vs Middle-East & Africa (basic statistics).

Location/ Facebook KPIs	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Page likes	0,75	0,50	1,00	1,00	0,60	0,55	1,00	1,00
Post reach	0,75	0,50	1,00	1,00	0,80	0,45	1,00	1,00
Engagement	0,75	0,50	1,00	1,00	0,60	0,55	1,00	1,00
Page impressions	0,00	0,00	0,00	0,00	0,20	0,45	0,00	0,00
Shares	0,50	0,58	0,00	0,50	0,60	0,55	1,00	1,00

On average, accelerators from South America use as Facebook marketing KPIs: ‘page likes’, ‘post reach’, ‘engagement’ and ‘number of shares’, which were also the most common Facebook KPIs classified by South American accelerators as being used by them.

On average, accelerators from Middle-East&Africa use as Facebook marketing KPIs: ‘page likes’, ‘post reach’, ‘engagement’ and ‘number of shares’, which were also the most common Facebook KPIs classified by accelerators from Middle-East&Africa as being used by them.

II.1.16. Number of Facebook KPIs used

Table II.39. Number of Facebook KPIs used (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	1,83	0,41	2	2
Europe	1,48	0,51	1,00	1,00
North America	1,31	0,48	1,00	1,00
Asia and Oceania	1,80	0,45	2,00	2,00
South America	2,00	0,00	2,00	2,00
Middle-East and Africa	1,60	0,55	2,00	2,00

On average, accelerators from Europe and North America tend to use 2 or less Facebook KPIs, while Portugal, Asia & Oceania, South America and Middle-East & Africa tend to use more than two Facebook KPIs.

Accelerators from Europe and North America most commonly classified the number of Facebook KPIs used as being 2 or less. Accelerators from Portugal, Asia & Oceania, South America and Middle-East and Africa as being more than 2.

II.1.16. Frequency of Facebook’s strategy evaluation

Table II.40. Frequency of Facebook’s strategy evaluation (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	0,33	0,52	0,00	0,00
Europe	0,48	0,60	0,00	0,00
North America	0,69	0,60	1,00	1,00
Asia and Oceania	0,80	0,45	1,00	1,00
South America	0,75	0,96	0,00	0,50
Middle-East and Africa	0,60	0,55	1,00	1,00

On average, accelerators from Europe evaluate their Facebook marketing strategy weekly or monthly, accelerators from Middle-East & Africa, North America, Asia & Oceania and South America evaluate their Facebook marketing strategy quarterly. Accelerators from Europe and South America most commonly

classified their Facebook's strategy evaluation as being weekly to monthly. Accelerators from North America, Asia & Oceania and Middle-East& Africa most commonly classified their Twitter's strategy evaluation as being quarterly.

II.1.17. Usage of Twitter Marketing to achieve objectives

Table II.41. Twitter marketing objectives: Portugal vs Europe (basic statistics).

Location/ Twitter objectives	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,00	1,41	3,00	3,00	3,90	1,30	4,00	4,00
Improve website's visitor experience	3,50	1,52	5,00	3,50	2,24	1,30	1,00	2,00
Increase number of social media followers	3,67	1,51	5,00	4,00	3,76	1,41	5,00	4,00
Selling a service	2,67	1,51	4,00	3,00	2,71	1,23	4,00	3,00
Provide information regarding what your organization is doing	3,67	1,37	4,00	4,00	3,71	1,27	5,00	4,00
Enhance loyalty towards the brand	3,67	1,37	4,00	4,00	3,48	1,57	5,00	4,00
Lead generation	3,50	1,38	4,00	4,00	3,00	1,48	1,00	3,00

On average, accelerators from Portugal use Twitter marketing weekly to 'improve website's visitor experience', 'increase the number of social media followers', 'provide information regarding what the organization is doing', 'enhance loyalty towards the brand' and 'lead generation'. The latest 3 objectives were most commonly classified by Portuguese accelerators as 4, which means they use Twitter marketing weekly to achieve these objectives. The first two objectives mentioned were most commonly classified by Portuguese accelerators as 5, which means they use Twitter marketing daily to achieve these objectives.

On average, accelerators from the remaining Europe use Twitter marketing weekly to 'drive traffic to the organization's website', 'increase the number of social media followers' and 'provide information regarding what the organization is doing'. The latest 2 objectives were most commonly classified by Portuguese accelerators as 5, which means they use Twitter marketing daily to achieve these objectives.

Table II.42. Twitter marketing objectives: North America vs Asia & Oceania (basic statistics).

Location/ Twitter objectives	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,94	0,68	4,00	4,00	3,00	1,58	-	3,00
Improve website's visitor experience	2,25	1,29	1,00	2,00	2,20	1,64	1,00	2,00
Increase number of social media followers	3,50	1,37	4,00	4,00	2,60	1,82	1,00	2,00
Selling a service	2,00	1,37	1,00	1,00	2,80	1,64	2,00	2,00
Provide information regarding what your organization is doing	3,69	1,14	4,00	4,00	3,20	1,64	4,00	4,00
Enhance loyalty towards the brand	3,69	1,01	4,00	4,00	2,60	1,82	1,00	2,00
Lead generation	3,38	1,15	4,00	4,00	3,20	1,64	4,00	4,00

On average, accelerators from North America use Twitter marketing weekly to ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘provide information regarding what the organization is doing’ and ‘enhance loyalty towards the brand’. These objectives and also ‘lead generation’ were most commonly classified by North American accelerators as 4, which means they use Twitter marketing weekly to achieve these objectives.

On average, accelerators from Asia & Oceania use Twitter marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘selling a service’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. Twitter objectives such as ‘provide information regarding what the organization is doing’ and ‘lead generation’ were most commonly classified by accelerators from Asia & Oceania as 4, which means they use Twitter marketing weekly to achieve them. The remaining objectives were most commonly classified as 1 or 2, which mean these accelerators use Twitter marketing never or occasionally to achieve these objectives.

Table II.43. Twitter marketing objectives: South America vs Middle-East & Africa (basic statistics).

Location/ Twitter objectives	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	2,50	1,91	1,00	2,00	2,80	1,79	1,00	3,00
Improve website's visitor experience	2,25	1,89	1,00	1,50	2,40	1,95	1,00	1,00
Increase number of social media followers	2,75	2,06	1,00	2,50	2,40	1,67	1,00	2,00
Selling a service	2,25	1,89	1,00	1,50	1,80	1,79	1,00	1,00
Provide information regarding what your organization is doing	2,75	2,06	1,00	2,50	2,80	1,79	1,00	3,00
Enhance loyalty towards the brand	2,75	2,06	1,00	2,50	2,80	1,79	1,00	3,00
Lead generation	2,50	1,91	1,00	2,00	2,60	1,82	1,00	2,00

On average, accelerators from South America use Twitter marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. Accelerators from South America most commonly classified all Twitter objectives as 1, which means they never use Twitter marketing to achieve these objectives.

On average, accelerators from Middle-East & Africa use Twitter marketing monthly to ‘drive traffic to the organization’s website’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. Accelerators from Middle-East & Africa most commonly classified all Twitter objectives as 1, which means they never use Twitter marketing to achieve these objectives.

II.1.18. Usage of Twitter KPIs

Table II.44. Twitter KPIs: Portugal vs Europe (basic statistics).

Location/ Twitter KPIs	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Engagement (replies, retweets, likes)	0,67	0,52	1,00	1,00	0,76	0,44	1,00	1,00
Organic impressions	0,50	0,55	1,00	0,50	0,33	0,48	0,00	0,00
Followers	0,83	0,41	1,00	1,00	0,57	0,51	1,00	1,00
Messages sent	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Responses rate & time	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Mentions	0,33	0,52	0,00	0,00	0,52	0,51	1,00	1,00
Profile visits	0,17	0,41	0,00	0,00	0,29	0,46	0,00	0,00
Tweets linking to you	0,17	0,41	0,00	0,00	0,43	0,51	0,00	0,00

On average, accelerators from Portugal use as Twitter KPIs: ‘engagement’, ‘organic impressions’ and ‘number of followers’, which were also the most common Twitter KPIs classified by Portuguese accelerators as being used by them.

On average, the majority of the accelerators coming from the remaining Europe use as Twitter KPIs: ‘engagement’, ‘number of followers’ and ‘mentions’, which were also the most frequent Twitter KPIs accelerators from this region classified as being used by them.

Table II.45. Twitter KPIs: North America vs Asia & Oceania (basic statistics).

Location/ Twitter KPIs	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Engagement (replies, retweets, likes)	0,88	0,34	1,00	1,00	0,60	0,55	1,00	1,00
Organic impressions	0,38	0,50	0,00	0,00	0,40	0,55	0,00	0,00
Followers	0,75	0,45	1,00	1,00	0,80	0,45	1,00	1,00
Messages sent	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Responses rate & time	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Mentions	0,19	0,40	0,00	0,00	0,40	0,55	0,00	0,00
Profile visits	0,13	0,34	0,00	0,00	0,00	0,00	0,00	0,00
Tweets linking to you	0,13	0,34	0,00	0,00	0,20	0,45	0,00	0,00

On average, accelerators from North America and Asia & Oceania use as Twitter KPI: ‘engagement’ and ‘number of followers’, which were also the most frequent Twitter KPI accelerators from these regions classified as being used by them.

Table II.46. Twitter KPIs: South America vs Middle-East & Africa (basic statistics).

Location/ Twitter KPIs	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Engagement (replies, retweets, likes)	0,5	0,57735	0	0,5	0,40	0,55	0,00	0,00
Organic impressions	0,25	0,5	0	0	0,40	0,55	0,00	0,00
Followers	0,5	0,57735	0	0,5	0,60	0,55	1,00	1,00
Messages sent	0	0	0	0	0,00	0,00	0,00	0,00
Responses rate & time	0	0	0	0	0,00	0,00	0,00	0,00
Mentions	0,5	0,57735	0	0,5	0,20	0,45	0,00	0,00
Profile visits	0	0	0	0	0,00	0,00	0,00	0,00
Tweets linking to you	0,25	0,5	0	0	0,00	0,00	0,00	0,00

On average, accelerators from South America use as Twitter KPIs: ‘engagement’, ‘number of followers’ and ‘mentions’. There was no most common Twitter KPIs classified by South American accelerators, which means accelerators from South America never use these Twitter KPIs.

Accelerators from Middle-East and Africa use as Twitter KPIs: ‘number of followers’, which was also the most frequent Twitter KPI accelerators from this region classified as being used by them.

II.1.19. Number of Twitter KPIs used

Table II.47. Twitter KPIs used (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	1,67	0,52	2,00	2,00
Europe	1,57	0,51	2,00	2,00
North America	1,44	0,51	1,00	1,00
Asia and Oceania	1,60	0,55	2,00	2,00
South America	1,50	0,58	1,00	1,50
Middle-East and Africa	1,20	0,45	1,00	1,00

On average, accelerators from Europe, Asia & Oceania and South America tend to use more than two Twitter KPIs, while North America and Middle-East & Africa tend to use two or less Twitter KPIs.

Accelerators from Portugal, Europe, Asia & Oceania most commonly classified the number of Twitter KPIs used of being more than 2. Accelerators from North America, South America and Middle-East & Africa most commonly classified the number of Twitter KPIs used of being 2 or less.

II.1.20. Frequency of Twitter's strategy evaluation

Table II.48. Frequency of Twitter's strategy evaluation (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	0,67	0,82	0,00	0,50
Europe	0,571	0,676	0	0
North America	1,063	0,574	1	1
Asia and Oceania	0,60	0,89	0	0
South America	1,75	0,50	2	2
Middle-East and Africa	0,80	0,84	0	1

On average, accelerators from Europe and Asia & Oceania tend to evaluate their Twitter strategy weekly to monthly, accelerators from North America and Middle-East & Africa tend to evaluate their Twitter strategy quarterly and accelerators from South America tend to evaluate their Twitter strategy semesterly.

Accelerators from Portugal, Europe, Asia & Oceania and Middle-East & Africa most commonly classified their Twitter's strategy evaluation as being weekly to monthly. Accelerators from North America most commonly classified their Twitter's strategy evaluation as being quarterly. Accelerators from South America most commonly classified their Twitter's strategy evaluation as being semesterly or yearly.

II.1.21. Digital areas of investment

Table II.49. Digital areas of investment: Portugal vs Europe (basic statistics).

Area of investment	Portugal				Europe			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Social media	0,67	0,52	1,00	1,00	0,52	0,51	1,00	1,00
E-mail marketing	0,50	0,55	0,00	0,50	0,48	0,51	0,00	0,00
Viral campaigns	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Website design	0,50	0,55	0,00	0,50	0,43	0,51	0,00	0,00
Digital ads	0,67	0,52	1,00	1,00	0,00	0,00	0,00	0,00
Mobile	0,00	0,00	0,00	0,00	0,05	0,22	0,00	0,00
Blogs	0,17	0,41	0,00	0,00	0,24	0,44	0,00	0,00
SEM	0,17	0,41	0,00	0,00	0,05	0,22	0,00	0,00
SEO	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Digital infrastructure	0,00	0,00	0,00	0,00	0,10	0,30	0,00	0,00

Digital brand experiences	0,00	0,00	0,00	0,00	0,10	0,30	0,00	0,00
People involved in DM	0,33	0,52	0,00	0,00	0,10	0,30	0,00	0,00
Video content development	0,50	0,55	0,00	0,50	0,29	0,46	0,00	0,00
Website maintenance and domain	0,00	0,00	0,00	0,00	0,10	0,30	0,00	0,00

On average, accelerators from Portugal will mostly invest in digital areas such as: ‘social media’, ‘e-mail marketing’, ‘website design’, ‘digital ads’ and ‘video content development’. The most common areas of investment in 2018 classified by Portuguese accelerators were ‘social media’ and ‘digital ads’.

On average, accelerators from the remaining Europe will mostly invest in ‘social media’, which was also the most frequent area accelerators from this region classified as an area of investment in 2018.

Table II.50. Digital areas of investment: North America vs Asia & Oceania (basic statistics).

Area of investment	North America				Asia and Oceania			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Social media	0,19	0,40	0,00	0,00	0,60	0,55	1,00	1,00
E-mail marketing	0,13	0,34	0,00	0,00	0,20	0,45	0,00	0,00
Viral campaigns	0,13	0,34	0,00	0,00	0,00	0,00	0,00	0,00
Website design	0,63	0,50	1,00	1,00	0,20	0,45	0,00	0,00
Digital ads	0,13	0,34	0,00	0,00	0,20	0,45	0,00	0,00
Mobile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Blogs	0,25	0,45	0,00	0,00	0,80	0,45	1,00	1,00
SEM	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
SEO	0,00	0,00	0,00	0,00	0,20	0,45	0,00	0,00
Digital infrastructure	0,06	0,25	0,00	0,00	0,00	0,00	0,00	0,00
Digital brand experiences	0,13	0,34	0,00	0,00	0,00	0,00	0,00	0,00
People involved in DM	0,13	0,34	0,00	0,00	0,00	0,00	0,00	0,00
Video content development	0,19	0,40	0,00	0,00	0,00	0,00	0,00	0,00
Website maintenance and domain	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

On average, accelerators from North America will invest in ‘website design’, which was also the most frequent area accelerators from this region classified as an area of investment in 2018.

On average, accelerators from Asia & Oceania will invest in areas such as ‘social media’ and ‘blogs’, which were also the most frequent areas accelerators these regions classified as areas of investment in 2018.

Table II.51. Digital areas of investment: South America vs Middle-East & Africa (basic statistics).

Area of investment	South America				Middle-East and Africa			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Social media	0,75	0,50	1,00	1,00	0,80	0,45	1,00	1,00
E-mail marketing	0,50	0,58	1,00	0,50	0,40	0,55	0,00	0,00
Viral campaigns	0,25	0,50	0,00	0,00	0,00	0,00	0,00	0,00
Website design	0,25	0,50	0,00	0,00	0,40	0,55	0,00	0,00
Digital ads	0,25	0,50	0,00	0,00	0,80	0,45	1,00	1,00
Mobile	0,00	0,00	0,00	0,00	0,20	0,45	0,00	0,00
Blogs	0,50	0,58	0,00	0,50	0,40	0,55	0,00	0,00
SEM	0,25	0,50	0,00	0,00	0,40	0,55	0,00	0,00
SEO	0,00	0,00	0,00	0,00	0,20	0,45	0,00	0,00
Digital infrastructure	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Digital brand experiences	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
People involved in DM	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Video content development	1,00	0,00	1,00	1,00	0,20	0,45	0,00	0,00
Website maintenance and domain	0,25	0,50	0,00	0,00	0,00	0,00	0,00	0,00

On average, accelerators from South America will invest in ‘social media’, ‘e-mail marketing’, ‘blogs’ and ‘video content development’. The most common areas of investment in 2018 classified by South American accelerators were ‘social media’, ‘e-mail marketing’ and ‘video content development’.

On average, accelerators from Middle-East & Africa will invest in areas such as ‘social media’ and ‘digital ads’, which were also the most frequent areas accelerators from these regions classified as areas of investment in 2018.

II.1.22. Number of investments in digital areas in 2018

Table II.52. Number of investments in digital areas in 2018 (basic statistics).

Location	Mean	Standard Deviation	Mode	Median
Portugal	0,67	0,52	1,00	1,00
Europe	0,29	0,46	0,00	0,00
North America	0,06	0,25	0,00	0,00
Asia and Oceania	0,20	0,45	0,00	0,00
South America	0,50	0,58	1,00	0,50
Middle-East and Africa	0,40	0,55	0,00	0,00

On average, accelerators from Portugal and South America will invest in more than two digital areas in 2018, and accelerators from the remaining Europe, North America, Asia & Oceania and Middle-East & Africa will invest in 2 or less digital areas in 2018.

II.2. Characteristic: Number of people working full-time

When doing this kind of profiling, the following ranges were considered of people working full-time within the accelerator: 5 or less people, 6 to 10 people, 11 to 20 people and more than 30 people. Accelerators with 21 to 30 people working full-time were not analyzed due to lack of answers (only 2), which made it an unrepresentative sample.

II.2.1. Profiling information regarding the number of people working full-time

32 organizations have 5 or less people working full-time (54%), 15 organizations have between 6 to 10 people (25%), 6 organizations have between 11 to 20 people (10%), 4 organizations have more than 30 people (7%) and 2 organizations have between 21 to 30 people.

Percentage of people working full-time in the organization

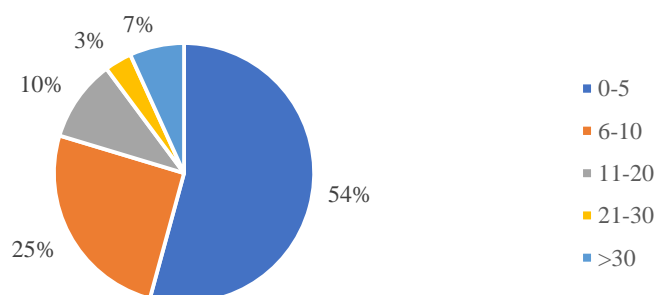


Figure II.2 Percentage of people working full-time in the organization.

II.2.2. Usage of DM to reach certain objectives

Table II.53. DM objectives: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ DM objectives	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive brand awareness	3,75	1,11	5,00	4,00	3,73	0,96	3,00	4,00
Attract quality start-ups	3,69	0,86	4,00	4,00	3,93	1,03	4,00	4,00
Build an entrepreneurship community	3,69	1,00	4,00	4,00	3,87	0,99	4,00	4,00
Provide relevant content to corporates and investors	2,88	1,29	3,00	3,00	3,20	1,32	4,00	4,00
Attract quality influencers	2,97	1,20	3,00	3,00	2,87	1,41	4,00	3,00
Provide online support	3,25	1,19	3,00	3,00	3,07	1,22	4,00	3,00
Attract quality corporates	2,72	1,22	3,00	3,00	3,53	1,36	4,00	4,00
Attract quality investors	2,75	1,14	3,00	3,00	3,33	1,35	4,00	4,00
Support decision-making process	2,84	1,25	3,00	3,00	3,13	1,55	4,00	4,00
Crowdsourcing	2,03	1,23	1,00	2,00	2,47	1,60	1,00	2,00
Competition follow-up	2,50	1,19	3,00	3,00	2,87	1,46	2,00	3,00

On average, accelerators with 5 or less people working full-time use DM weekly to ‘drive brand awareness’, ‘attract quality start-ups’ and ‘build an entrepreneurship community’. The objective most commonly classified by accelerators with 5 or less people working full-time as 5 was ‘drive brand awareness’ (meaning that these accelerators use DM daily to achieve this objective).

On average, accelerators with 6 to 10 people working full-time tend to use DM weekly to ‘drive brand awareness’, ‘attract quality start-ups’, ‘build an entrepreneurship community’ and ‘attract quality corporates’. The objectives most commonly classified by accelerators with 6 to 10 people working full-time as a 4 were ‘attract quality start-ups’, ‘build an entrepreneurship community’, ‘provide relevant content to corporates and investors’, ‘attract quality influencers’, ‘provide online support’, ‘attract quality corporates’,

‘attract quality investors’ and ‘support decision-making process’ (meaning that these accelerators use DM weekly to achieve these objectives).

Table II.54. DM objectives: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ DM objectives	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive brand awareness	3,83	1,17	5,00	4,00	4,50	0,58	5,00	4,50
Attract quality start-ups	4,50	0,55	4,00	4,50	4,25	1,50	5,00	5,00
Build an entrepreneurship community	4,50	0,84	5,00	5,00	4,50	1,00	5,00	5,00
Provide relevant content to corporates and investors	3,00	1,26	4,00	3,50	4,25	0,96	5,00	4,50
Attract quality influencers	2,83	1,17	4,00	3,00	3,50	1,00	3,00	3,00
Provide online support	4,17	1,17	5,00	4,50	4,50	0,58	5,00	4,50
Attract quality corporates	2,83	1,17	4,00	3,00	4,00	1,15	5,00	4,00
Attract quality investors	2,67	1,21	4,00	2,50	3,50	1,29	-	3,50
Support decision-making process	2,83	1,72	4,00	3,00	3,75	0,96	3,00	3,50
Crowdsourcing	2,17	1,33	1,00	2,00	2,75	1,50	2,00	2,00
Competition follow-up	3,17	1,47	4,00	3,50	3,00	1,41	2,00	2,50

On average, accelerators with 11 to 20 people working full-time use DM daily to ‘attract quality start-ups’ and ‘build an entrepreneurship community’. The objective most commonly classified by accelerators with 11 to 20 people working full-time as 5 were ‘drive brand awareness’, ‘build an entrepreneurship community’ and ‘provide online support’ (meaning that these accelerators use DM daily to achieve these objectives).

On average, accelerators more than 30 people working full-time tend to use DM daily to ‘drive brand awareness’, ‘build an entrepreneurship community’ and ‘provide online support’. The objectives most commonly classified by accelerators more than 30 people working full-time as a 5 were ‘drive brand awareness’, ‘attract quality start-ups’, ‘build an entrepreneurship community’, ‘provide relevant content to

corporates and investors’, ‘provide online support’ and ‘attract quality corporates’ (meaning that these accelerators use DM daily to achieve these objectives).

II.2.3. Importance given to DM Challenges

Table II.54. DM challenges: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time / DM challenges	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Contact data base organization	3,50	1,19	4,00	4,00	3,13	1,51	5,00	3,00
Managing brand reputation	4,03	1,03	4,00	4,00	3,93	0,88	3,00	4,00
Ability to generate deep attendees insights	3,88	0,91	4,00	4,00	3,80	1,01	3,00	4,00
Having all marketing & communication team working towards the same goals and objectives	3,66	1,18	4,00	4,00	3,60	1,30	4,00	4,00

On average, accelerators with 5 or less people working full-time consider as a very important challenge ‘contact data base organization’, ‘managing brand reputation’, ‘ability to generate deep attendees insights’ and ‘having all marketing and communication team working towards the same goals and objectives’, but they also value as very important the remaining challenges. These challenges were also most commonly classified by these accelerators as 4 (very important).

On average, accelerators with 6 to 10 people working full-time consider ‘managing brand reputation’, ‘ability to generate deep attendees insights’ and ‘having all marketing and communication team working towards the same goals and objectives’ as very important challenges. The challenge most commonly classified by these accelerators as 5 (extremely important) was ‘managing brand reputation’.

Table II.55. DM challenges: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ DM challenges	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Contact data base organization	2,83	1,60	3,00	3,00	4,25	0,96	5,00	4,50
Managing brand reputation	4,67	0,82	5,00	5,00	5,00	0,00	5,00	5,00
Ability to generate deep attendees insights	3,67	1,03	4,00	4,00	4,50	1,00	5,00	5,00
Having all marketing & communication team working towards the same goals and objectives	4,00	0,63	4,00	4,00	4,75	0,50	5,00	5,00

On average, accelerators with 11 to 20 people working full-time consider as a very important challenge ‘managing brand reputation’. This challenge was also most commonly classified by these accelerators as 5 (extremely important).

On average, accelerators with more than 30 people working full-time consider ‘managing brand reputation’, ‘ability to generate deep attendees insights’ and ‘having all marketing and communication team working towards the same goals and objectives’ as extremely important challenges. These challenges along with ‘contact data base organization’ were most commonly classified by these accelerators as 5 (extremely important).

II.2.4. Usage of digital channels to reach start-ups

Table II.56. Digital channels usage to reach start-ups: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,75	1,11	5,00	4,00	3,73	0,96	3,00	4,00
E-mail	3,47	0,95	4,00	3,50	3,67	0,90	3,00	4,00
Facebook	3,72	1,11	4,00	4,00	4,07	1,10	4,00	4,00
Twitter	3,75	1,39	5,00	4,00	4,27	0,96	5,00	5,00

Instagram	2,41	1,50	1,00	2,00	2,27	1,53	1,00	1,00
LinkedIn	3,03	1,09	4,00	3,00	3,93	1,22	5,00	4,00
YouTube	2,00	0,95	1,00	2,00	2,20	1,08	1,00	2,00
Slack	1,78	1,41	1,00	1,00	2,33	1,76	1,00	1,00
Flickr	1,09	0,39	1,00	1,00	1,13	0,35	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,20	0,41	1,00	1,00
Blog	2,25	1,22	1,00	2,50	3,07	1,10	3,00	3,00
Quora	1,16	0,51	1,00	1,00	1,60	0,83	1,00	1,00
Reddit	1,13	0,55	1,00	1,00	1,40	0,63	1,00	1,00

On average, accelerators with 5 or less people working full-time use weekly Website, Facebook and Twitter to reach start-ups. The channels most commonly classified by accelerators with 5 or less people working full-time as 5 were ‘Website’ and ‘Facebook’ (meaning that these accelerators use Website and Facebook daily to reach out start-ups).

On average, accelerators with 6 to 10 people working full-time use weekly Website, E-mail, Facebook, Twitter and LinkedIn to reach start-ups. The channel most commonly classified by accelerators with 6 to 10 people working full-time as 5 was ‘Twitter’ and ‘LinkedIn’ (meaning that these accelerators use Twitter and LinkedIn daily to reach out start-ups).

Table II.57. Digital channels usage to reach start-ups: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,83	1,17	5,00	4,00	4,50	0,58	5,00	4,50
E-mail	3,83	1,17	5,00	4,00	4,00	0,00	4,00	4,00
Facebook	4,50	0,55	5,00	4,50	4,75	0,50	5,00	5,00
Twitter	4,17	0,98	5,00	4,50	5,00	0,00	5,00	5,00
Instagram	2,67	1,63	1,00	2,50	4,50	1,00	5,00	5,00
LinkedIn	2,17	1,17	1,00	2,00	4,50	0,58	4,00	4,50
YouTube	2,33	1,21	1,00	2,50	2,50	0,58	2,00	2,50
Slack	2,17	1,60	1,00	1,50	3,25	1,71	-	3,50
Flickr	1,17	0,41	1,00	1,00	2,00	1,41	1,00	1,50
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	2,67	1,37	1,00	3,00	3,75	1,26	4,00	4,00
Quora	1,67	1,21	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,50	1,00	1,00	1,00

On average, accelerators with 11 to 20 people working full-time use Facebook daily and Website, E-mail and Twitter weekly to reach start-ups. The channels most commonly classified by accelerators with 11 to 20 people working full-time as 5 were ‘Website’, ‘E-mail’, ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use Website, E-mail, Facebook and Twitter daily to reach out start-ups).

On average, accelerators with more than 30 people working full-time use weekly Website, Facebook, Twitter, Instagram and LinkedIn to reach start-ups. The channel most commonly classified by accelerators with more than 30 people working full-time as 5 was ‘Website’, ‘Facebook’, ‘Twitter’ and ‘Instagram’ (meaning that these accelerators use these channels daily to reach out start-ups).

II.2.5. Usage of digital channels to reach corporates

Table II.58. Digital channels usage to reach corporates: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,91	1,42	1,00	3,00	3,80	0,86	4,00	4,00
E-mail	3,41	1,21	3,00	3,50	3,67	0,82	4,00	4,00
Facebook	2,09	1,25	1,00	1,50	2,80	1,52	1,00	3,00
Twitter	2,47	1,29	1,00	3,00	3,47	1,30	3,00	3,00
Instagram	1,38	0,79	1,00	1,00	1,80	1,37	1,00	1,00
LinkedIn	2,50	1,34	1,00	3,00	3,53	1,46	5,00	4,00
YouTube	1,41	0,76	1,00	1,00	1,60	0,74	1,00	1,00
Slack	1,13	0,49	1,00	1,00	1,33	0,90	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,07	0,26	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,00	0,00	1,00	1,00
Blog	1,59	1,10	1,00	1,00	2,67	1,23	3,00	3,00
Quora	1,09	0,53	1,00	1,00	1,13	0,52	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00

On average, accelerators with 5 or less people use monthly their Website, E-mail and LinkedIn to reach corporates. The channel most commonly classified by these accelerators as 3 was ‘E-mail’ (meaning that these accelerators use E-mail monthly to reach out corporates).

On average, accelerators with 6 to 10 people working full-time use weekly Website, E-mail and LinkedIn to reach corporates. The channels most commonly classified by these accelerators as 5 were ‘LinkedIn’ (meaning that these accelerators use LinkedIn daily to reach out corporates).

Table II.59. Digital channels usage to reach corporates: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,67	1,51	5,00	4,00	4,50	0,58	5,00	4,50
E-mail	3,67	1,75	5,00	4,50	3,50	0,58	4,00	3,50
Facebook	2,67	1,37	2,00	2,50	3,50	1,73	4,00	4,00

Twitter	3,17	1,33	3,00	3,00	3,75	1,89	5,00	4,50
Instagram	1,67	1,63	1,00	1,00	3,00	1,63	3,00	3,00
LinkedIn	2,33	1,51	1,00	2,00	4,00	0,82	4,00	4,00
YouTube	1,00	0,00	1,00	1,00	2,00	0,82	2,00	2,00
Slack	1,33	0,82	1,00	1,00	1,50	0,58	1,00	1,50
Flickr	1,00	0,00	1,00	1,00	1,50	0,58	2,00	1,50
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	1,83	0,98	1,00	1,50	3,00	0,82	3,00	3,00
Quora	1,33	0,82	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00

On average, accelerators with 11 to 20 people working full-time use weekly their Website and E-mail to reach corporates. The channels most commonly classified by these accelerators as 5 were ‘Website’ and ‘E-mail’ (meaning that these accelerators use Website and E-mail daily to reach out corporates).

On average, accelerators with more than 30 people working full-time use their Website daily to reach corporates. The channels most commonly classified by these accelerators as 5 were ‘Website’ and ‘Twitter’ (meaning that these accelerators use Website and Twitter daily to reach out corporates).

II.2.6. Usage of digital channels to reach investors

Table II.60. Digital channels usage to reach investors: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,03	1,43	4,00	3,00	3,40	1,35	4,00	4,00
E-mail	3,34	1,00	4,00	3,50	3,47	1,36	4,00	4,00
Facebook	2,22	1,29	1,00	2,00	2,20	1,61	1,00	1,00
Twitter	2,31	1,35	1,00	2,00	2,80	1,57	1,00	3,00
Instagram	1,31	0,82	1,00	1,00	1,60	1,18	1,00	1,00
LinkedIn	2,19	1,18	1,00	2,00	3,20	1,70	5,00	4,00
YouTube	1,38	0,66	1,00	1,00	1,53	0,83	1,00	1,00
Slack	1,13	0,71	1,00	1,00	1,53	1,13	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,07	0,26	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,07	0,26	1,00	1,00
Blog	1,56	1,01	1,00	1,00	2,47	1,41	1,00	2,00
Quora	1,00	0,00	1,00	1,00	1,33	0,90	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00

On average, accelerators with 5 or less people working full-time use monthly their Website and E-mail to reach investors. The channels most commonly classified by these accelerators as 4 were ‘Website’ and ‘E-mail’ (meaning that these accelerators use Website and E-mail weekly to reach out investors).

On average, accelerators with 6 to 10 people working full-time use monthly their Website, E-mail, Twitter and LinkedIn to reach investors. The channel most commonly classified by these accelerators as 5 was 'LinkedIn' (meaning that these accelerators use LinkedIn daily to reach out investors).

Table II.61. Digital channels to reach investors: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,00	1,41	3,00	3,00	4,00	0,82	4,00	4,00
E-mail	3,50	0,84	3,00	3,00	3,25	0,50	3,00	3,00
Facebook	2,17	1,17	1,00	2,00	3,50	1,73	4,00	4,00
Twitter	2,33	1,21	1,00	2,50	3,75	1,89	5,00	4,50
Instagram	1,50	1,22	1,00	1,00	2,75	1,71	-	2,50
LinkedIn	2,17	1,33	1,00	2,00	3,50	0,58	4,00	3,50
YouTube	1,00	0,00	1,00	1,00	2,00	0,82	2,00	2,00
Slack	1,17	0,41	1,00	1,00	1,75	0,96	1,00	1,50
Flickr	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	1,50	0,84	1,00	1,00	2,75	1,26	3,00	3,00
Quora	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00

On average, accelerators with 11 to 20 people working full-time consider to use their E-mail weekly to reach investors. The channels most commonly classified by these accelerators as 3 were 'Website' and 'E-mail' (meaning that these accelerators use Website and E-mail monthly to reach out investors).

On average, accelerators with more than 30 people working full-time use weekly their Website, Facebook, Twitter and LinkedIn to reach investors. The channel most commonly classified by these accelerators as 5 was 'Twitter' (meaning that these accelerators use Twitter daily to reach out investors).

II.2.7. Usage of digital channels to reach the government

Table II.62. Digital channels usage to reach the government: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,09	1,38	1,00	1,50	2,53	1,41	1,00	2,00
E-mail	2,22	1,29	1,00	2,00	2,47	1,41	1,00	2,00
Facebook	1,44	0,80	1,00	1,00	1,40	0,74	1,00	1,00
Twitter	1,50	0,88	1,00	1,00	1,73	0,96	1,00	1,00

Instagram	1,09	0,39	1,00	1,00	1,27	0,59	1,00	1,00
LinkedIn	1,34	0,70	1,00	1,00	2,00	1,20	1,00	2,00
YouTube	1,09	0,30	1,00	1,00	1,27	0,59	1,00	1,00
Slack	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Blog	1,34	0,75	1,00	1,00	1,87	1,25	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00

On average, accelerators with 5 or less people working full-time use occasionally (1-3 times per year) their Website, E-mail and Facebook to reach the government. All channels were most commonly classified by these accelerators as 1 (meaning that these accelerators use none of these digital channels to reach out the government).

On average, accelerators with 6 to 10 people working full-time use Website monthly to reach out the government. All channels were most commonly classified by these accelerators as 1 (meaning that these accelerators use none of these channels to reach out the government).

Table II.63. Digital channels usage to reach the government: North America vs Asia & Oceania (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,83	1,60	1,00	3,00	2,50	1,73	2,00	2,00
E-mail	2,67	0,82	2,00	2,50	2,25	0,96	3,00	2,50
Facebook	2,17	1,33	1,00	2,00	2,25	0,96	3,00	2,50
Twitter	2,00	1,26	1,00	1,50	2,25	0,96	3,00	2,50
Instagram	1,33	0,82	1,00	1,00	2,25	1,26	2,00	2,00
LinkedIn	1,33	0,82	1,00	1,00	2,25	1,26	2,00	2,00
YouTube	1,00	0,00	1,00	1,00	1,75	0,50	2,00	2,00
Slack	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	1,17	0,41	1,00	1,00	2,00	1,41	1,00	1,50
Quora	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00

On average, accelerators with 11 to 20 people working full-time use Website and E-mail monthly to reach the government. The channel most commonly classified by these accelerators as 2 was ‘E-mail’ (meaning that these accelerators use E-mail occasionally throughout the year to reach the government).

On average, accelerators with more than 30 people working full-time their Website monthly to reach the government. The channels most commonly classified by these accelerators as 3 were ‘E-mail’, ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use E-mail, Facebook and Twitter monthly to reach out the government).

II.2.8. Usage of digital channels to reach universities

Table II.64. Digital channels usage to reach universities: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,19	1,33	1,00	2,00	2,53	1,41	1,00	2,00
E-mail	2,44	1,19	3,00	2,50	2,93	1,33	3,00	3,00
Facebook	2,09	1,15	1,00	2,00	2,67	1,45	3,00	3,00
Twitter	2,13	1,31	1,00	1,50	2,40	1,35	1,00	3,00
Instagram	1,53	1,02	1,00	1,00	1,53	1,19	1,00	1,00
LinkedIn	1,75	1,02	1,00	1,00	2,33	1,59	1,00	1,00
YouTube	1,28	0,68	1,00	1,00	1,40	0,74	1,00	1,00
Slack	1,06	0,35	1,00	1,00	1,33	0,90	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,13	0,52	1,00	1,00
Blog	1,34	0,79	1,00	1,00	1,87	1,30	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,33	0,90	1,00	1,00
Reddit	1,03	0,18	1,00	1,00	1,13	0,52	1,00	1,00

On average, accelerators with 5 or less people working full-time are using occasionally (1-3 times per year) Website, E-mail, Facebook, Twitter, Instagram and LinkedIn to reach out universities. The channel most commonly classified by these accelerators as 3 was ‘Facebook’ (meaning that these accelerators use Facebook monthly to reach out to universities).

On average, accelerators with 6 to 10 people working full-time use monthly Website, E-mail and Facebook to reach universities. The channels most commonly classified by these accelerators as 3 were ‘E-mail’ and ‘Facebook’ (meaning that these accelerators use E-mail and Facebook monthly to reach out to universities).

Table II.65. Digital channels usage to reach universities: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	2,83	1,60	1,00	3,00	3,00	1,83	-	3,00

E-mail	3,33	1,21	2,00	3,50	2,25	0,96	3,00	2,50
Facebook	2,83	1,60	1,00	3,00	2,25	0,96	3,00	2,50
Twitter	2,83	1,60	1,00	3,00	2,50	1,29	-	2,50
Instagram	1,83	1,60	1,00	1,00	2,50	1,73	2,00	2,00
LinkedIn	1,67	1,21	1,00	1,00	2,50	1,29	-	2,50
YouTube	1,00	0,00	1,00	1,00	2,25	1,26	2,00	2,00
Slack	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	1,17	0,41	1,00	1,00	2,50	1,29	-	2,50
Quora	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00

On average, accelerators with 11 to 20 people working full-time use Website, E-mail, Facebook and Twitter monthly to reach universities. The channel most commonly classified by these accelerators as 2 was ‘E-mail’ (meaning that these accelerators use E-mail occasionally to reach out to universities).

On average, accelerators with more than 30 people working full-time use Website, Twitter, Instagram, LinkedIn and Blog monthly to reach universities. The channels most commonly classified by these accelerators as 3 were ‘E-mail’ and ‘Facebook’ (meaning that these accelerators use E-mail and Facebook monthly to reach out to universities).

II.1.9. Usage of digital channels to reach the media

Table II.66. Digital channels usage to reach the media: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,09	1,42	3,00	3,00	2,80	1,42	4,00	3,00
E-mail	2,91	0,89	3,00	3,00	3,27	1,16	2,00	3,00
Facebook	2,28	1,30	1,00	2,00	2,27	1,53	1,00	2,00
Twitter	2,34	1,31	1,00	2,00	3,07	1,58	3,00	3,00
Instagram	1,41	1,04	1,00	1,00	1,47	1,25	1,00	1,00
LinkedIn	1,81	1,15	1,00	1,00	2,67	1,54	1,00	3,00
YouTube	1,44	0,72	1,00	1,00	1,73	1,10	1,00	1,00
Slack	1,06	0,35	1,00	1,00	1,40	1,06	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,20	0,77	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,20	0,77	1,00	1,00
Blog	1,41	0,87	1,00	1,00	1,93	1,22	1,00	1,00
Quora	1,00	0,00	1,00	1,00	1,33	0,90	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,20	0,77	1,00	1,00

On average, accelerators with 5 or less people working full-time use Website and E-mail monthly to reach out media. The channels most commonly classified by these accelerators as 3 were ‘Website’ and ‘E-mail’ (meaning that these accelerators use Website and E-mail monthly to reach out to media).

On average, accelerators with 6 to 10 people working full-time reach out media monthly through Website, E-mail, Twitter and LinkedIn. The channel most commonly classified by these accelerators as 4 was ‘Website’ (meaning that these accelerators use Website weekly to reach out to media).

Table II.67. Digital channels usage to reach the media: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Digital channels	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Website	3,17	1,60	5,00	3,00	3,50	1,73	4,00	4,00
E-mail	3,50	0,55	4,00	3,50	2,50	1,29	-	2,50
Facebook	3,00	1,90	5,00	3,00	2,75	1,26	3,00	3,00
Twitter	3,00	1,90	5,00	3,00	3,00	1,63	3,00	3,00
Instagram	2,00	1,67	1,00	1,00	2,75	1,71	-	2,50
LinkedIn	1,67	1,03	1,00	1,00	2,75	1,26	3,00	3,00
YouTube	1,33	0,52	1,00	1,00	2,25	0,96	3,00	2,50
Slack	1,17	0,41	1,00	1,00	1,00	0,00	1,00	1,00
Flickr	1,00	0,00	1,00	1,00	1,50	1,00	1,00	1,00
Pinterest	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Blog	1,33	0,82	1,00	1,00	2,75	1,50	4,00	3,00
Quora	1,00	0,00	1,00	1,00	1,25	0,50	1,00	1,00
Reddit	1,00	0,00	1,00	1,00	1,50	1,00	1,00	1,00

On average, accelerators with 11 to 20 people working full-time use E-mail weekly to reach media. The channels most commonly classified by these accelerators as 5 were ‘Website’, ‘Facebook’ and ‘Twitter’ (meaning that these accelerators use Website, Facebook and Twitter daily to reach out media).

On average, accelerators with more than 30 people working full-time use Website weekly to reach the media. The channels most commonly classified by these accelerators as 4 were ‘Website’ and ‘Blog’ (meaning that these accelerators use Website and Blog weekly to reach out media).

II.2.10. Usage of DM to achieve E-mail Marketing objectives

Table II.68. E-mail marketing objectives: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ E-mail objectives	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	2,56	1,05	3,00	3,00	2,87	0,99	3,00	3,00
Improve website's visitor experience	2,00	0,88	1,00	2,00	1,80	1,08	1,00	1,00
Increase number of social media followers	2,50	1,08	3,00	3,00	2,53	1,06	3,00	3,00
Selling a service	2,13	1,16	1,00	2,00	2,47	1,25	1,00	3,00
Provide information regarding what your organization is doing	3,19	0,82	3,00	3,00	3,47	0,83	4,00	4,00
Enhance loyalty towards the brand	2,66	0,97	3,00	3,00	2,53	1,13	3,00	3,00
Lead generation	2,84	1,17	3,00	3,00	3,20	1,15	4,00	3,00

On average, accelerators with 5 or less people working full-time use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’, which were frequently classified by these accelerators as 3 (meaning that these accelerators use monthly E-mail marketing to reach these objectives).

On average, accelerators with 6 to 10 people working full-time use E-mail marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’, which were frequently classified by these accelerators as 3 (meaning that these accelerators use monthly E-mail marketing to reach these objectives).

Table II.69. E-mail marketing objectives: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ E-mail objectives	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,00	1,55	4,00	4,00	3,75	0,50	4,00	4,00
Improve website's visitor experience	3,00	1,67	1,00	3,50	2,50	1,29	-	2,50
Increase number of social media followers	2,67	1,63	1,00	2,50	3,00	1,15	4,00	3,00
Selling a service	3,17	1,83	1,00	3,50	3,25	1,71	-	3,50
Provide information regarding what your organization is doing	3,83	1,17	5,00	4,00	3,75	0,96	3,00	3,50
Enhance loyalty towards the brand	3,50	1,38	4,00	4,00	3,75	0,50	4,00	4,00
Lead generation	3,17	1,47	4,00	3,50	4,00	0,82	4,00	4,00

On average, accelerators with 11 to 20 people working full-time use E-mail marketing weekly to ‘enhance loyalty towards the brand’. The objective most commonly classified by these accelerators as 5 was ‘provide information regarding what your organization is doing’ (meaning E-mail is used daily to achieve this objective).

On average, accelerators with more than 30 people working full-time use E-mail marketing weekly to ‘drive traffic to the organization’s website’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The objectives most commonly classified by these accelerators as 4 were ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘enhance loyalty towards the brand’ and ‘lead generation’ (meaning E-mail is used weekly to achieve this objective).

II.2.11. E-mail KPIs used

Table II.70. E-mail KPIs used: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ E-mail KPIs	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Number of emails sent	0,28	0,46	0,00	0,00	0,33	0,49	0,00	0,00
Email Open rate	0,63	0,49	1,00	1,00	0,80	0,41	1,00	1,00
Click-through rate	0,47	0,51	0,00	0,00	0,80	0,41	1,00	1,00
Bounce rate	0,16	0,37	0,00	0,00	0,20	0,41	0,00	0,00
List Growth rate	0,22	0,42	0,00	0,00	0,40	0,51	0,00	0,00
Email Sharing/Forwarding Rate	0,03	0,18	0,00	0,00	0,07	0,26	0,00	0,00
Overall ROI	0,09	0,30	0,00	0,00	0,13	0,35	0,00	0,00
Conversion Rate	0,28	0,46	0,00	0,00	0,47	0,52	0,00	0,00
Hurdle Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Delivered rate	0,03	0,18	0,00	0,00	0,13	0,35	0,00	0,00
Unsubscribe Rate	0,19	0,40	0,00	0,00	0,13	0,35	0,00	0,00

On average, accelerators with 5 or less people working full-time use as E-mail KPI: ‘email open rate’, which was also the most common E-mail KPI classified by these accelerators as being used by them.

On average, accelerators with 6 to 10 people working full-time use as E-mail KPIs: ‘E-mail open rate’ and ‘click-through rate’, which were also the most common E-mail KPIs classified by these accelerators as being used by them.

Table II.71. E-mail KPIs used: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ E-mail KPIs	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Number of emails sent	0,17	0,41	0,00	0,00	0,25	0,50	0,00	0,00
Email Open rate	0,83	0,41	1,00	1,00	0,75	0,50	1,00	1,00

Click-through rate	0,50	0,55	0,00	0,50	0,75	0,50	1,00	1,00
Bounce rate	0,17	0,41	0,00	0,00	0,25	0,50	0,00	0,00
List Growth rate	0,33	0,52	0,00	0,00	0,00	0,00	0,00	0,00
Email Sharing/Forwarding Rate	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Overall ROI	0,00	0,00	0,00	0,00	0,25	0,50	0,00	0,00
Conversion Rate	0,50	0,55	0,00	0,50	0,50	0,58	0,00	0,50
Hurdle Rate	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Delivered rate	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Unsubscribe Rate	0,17	0,41	0,00	0,00	0,50	0,58	1,00	0,50

On average, accelerators with 11 to 20 people working full-time prefer to use as E-mail KPIs: ‘email open rate’, ‘click-through rate’ and ‘conversion rate’. The most common E-mail KPIs classified by these accelerators as being used by them were: ‘e-mail open rate’, ‘click-through rate’ and ‘unsubscribed rate’.

II.2.12. Number of E-mail KPIs used

Table II.72. Number of E-mail KPIs used (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	1,59	0,80	1,00	1,00
6 to 10 people	2,27	0,59	2,00	2,00
11 to 20 people	2,00	1,10	1,00	2,00
More than 30 people	2,25	0,96	3,00	2,50

On average, accelerators of all sizes tend to use two or less E-mail KPIs. Accelerators with 5 or less people and 11 to 20 people working full-time classified the number of E-mail KPIs used as being 2 or less. Accelerators with 6 to 10 people working full-time classified the number of E-mail KPIs used as being 3, while accelerators with more than 30 people working full-time tend to use more than three E-mail KPIs.

II.2.13. Frequency of evaluating E-mail Marketing strategy

Table II.73. Frequency of evaluating E-mail Marketing strategy (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	0,97	0,74	1,00	1,00
6 to 10 people	0,80	0,56	1,00	1,00
11 to 20 people	0,67	0,82	0,00	0,50
More than 30 people	0,50	0,58	0,00	0,50

On average, accelerators of all sizes evaluate their E-mail marketing strategy quarterly. The most frequently classification by accelerators with 10 or less people working full-time was quarterly, while accelerators with 11 to 20 people and more than 30 people working full-time most frequently evaluate their E-mail marketing strategy monthly.

II.2.14. Usage of DM to achieve Facebook Marketing objectives

Table II.74. Facebook marketing objectives: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time / Facebook objectives	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	2,97	1,18	4,00	3,00	3,67	1,35	5,00	4,00
Improve website's visitor experience	2,34	1,29	1,00	2,00	2,47	1,51	1,00	2,00
Increase number of social media followers	3,16	1,35	4,00	4,00	3,67	1,35	5,00	4,00
Selling a service	1,78	1,10	1,00	1,00	3,13	1,60	5,00	3,00
Provide information regarding what your organization is doing	3,22	1,24	4,00	4,00	4,13	1,06	4,00	4,00
Enhance loyalty towards the brand	2,84	1,39	4,00	3,00	3,27	1,58	5,00	4,00
Lead generation	2,75	1,24	3,00	3,00	3,33	1,63	5,00	4,00

On average, accelerators with 5 or less people working full-time are using Facebook marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what your organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The objectives most frequently classified by these accelerators as 4 were ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what your organization is doing’ and ‘enhance loyalty towards the brand’ (meaning that these accelerators use weekly Facebook marketing to reach these objectives).

On average, accelerators with 6 to 10 people working full-time use Facebook marketing weekly to ‘drive traffic to the organization’s website’, ‘increase number of social media followers’ and ‘provide information regarding what the organization is doing’. The objectives most commonly classified by these accelerators

as 5 were ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘selling a service’, ‘enhance loyalty towards the brand’ and ‘lead generation’ (meaning that these accelerators use daily Facebook marketing to reach these objectives).

Table II.75. Facebook marketing objectives: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time / Facebook objectives	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	4,17	1,60	5,00	5,00	4,50	0,58	5,00	4,50
Improve website's visitor experience	3,50	1,97	5,00	4,50	3,50	1,29	-	3,50
Increase number of social media followers	3,67	1,75	5,00	4,50	4,25	0,50	4,00	4,00
Selling a service	3,67	1,51	5,00	4,00	3,00	0,82	3,00	3,00
Provide information regarding what your organization is doing	4,33	0,82	5,00	4,50	4,25	0,96	5,00	4,50
Enhance loyalty towards the brand	4,00	1,67	5,00	5,00	4,50	0,58	4,00	4,50
Lead generation	3,67	1,51	5,00	4,00	3,75	0,96	3,00	3,50

On average, accelerators with 11 to 20 people working full-time use Facebook marketing weekly to achieve all these objectives. All the previous Facebook objectives were also most commonly classified by accelerators from this region as being 5 (meaning that these accelerators use Facebook marketing daily to reach these objectives).

On average, accelerators with more than 30 people working full-time use Facebook marketing daily to ‘drive traffic to the organization’s website’ and ‘enhance loyalty towards the brand’. The Facebook objectives most commonly classified by these accelerators as being 5 were ‘drive traffic to the organization’s website’ and ‘provide information regarding what your organization is doing’ (meaning that these accelerators use Facebook marketing daily to reach these objectives).

II.2.15. Usage of Facebook KPIs

Table II.76. Facebook KPIs usage: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Facebook KPIs	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Page likes	0,59	0,50	1,00	1,00	0,60	0,51	1,00	1,00
Post reach	0,63	0,49	1,00	1,00	0,60	0,51	1,00	1,00
Engagement	0,59	0,50	1,00	1,00	0,73	0,46	1,00	1,00
Page impressions	0,19	0,40	0,00	0,00	0,47	0,52	0,00	0,00
Shares	0,41	0,50	0,00	0,00	0,53	0,52	1,00	1,00

On average, accelerators with 5 or less people working full-time use as Facebook marketing KPIs: ‘page likes’, ‘post reach’ and ‘engagement’, which were also the most common Facebook KPIs classified by these accelerators as being used by them.

On average, accelerators with 6 to 10 people working full-time use as Facebook KPIs: ‘page likes’, ‘post reach’, ‘engagement’ and ‘number of shares’, which were also the most common Facebook KPIs classified by these accelerators as being used by them.

Table II.77. Facebook KPIs usage: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Facebook KPIs	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Page likes	0,83	0,41	1,00	1,00	0,75	0,50	1,00	1,00
Post reach	0,50	0,55	0,00	0,50	0,25	0,50	0,00	0,00
Engagement	0,67	0,52	1,00	1,00	1,00	0,00	1,00	1,00
Page impressions	0,33	0,52	0,00	0,00	0,00	0,00	0,00	0,00
Shares	0,50	0,55	1,00	0,50	0,25	0,50	0,00	0,00

On average, accelerators with 11 to 20 people working full-time use as Facebook marketing KPIs: ‘page likes’, ‘post reach’, ‘engagement’ and ‘number of shares’. The most common Facebook KPIs classified by these accelerators as being used by them were ‘page likes’, ‘engagement’ and ‘number of shares’.

On average, accelerators with more than 30 people working full-time use as Facebook marketing KPIs: ‘page likes’ and ‘engagement’, which were also the most common Facebook KPIs classified by these accelerators as being used by them.

II.2.16. Number of Facebook KPIs used

Table II.78. Number of Facebook KPIs used (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	1,47	0,51	1,00	1,00
6 to 10 people	1,60	0,51	2,00	2,00
11 to 20 people	1,83	0,41	2,00	2,00
More than 30 people	1,50	0,58	2,00	1,50

On average, accelerators with 6 to 10 people, 11 to 20 people and more than 30 people working full-time tend to use 3 or more Facebook KPIs, while accelerators with 5 or less people working full-time tend to use less than 3 Facebook KPIs.

Accelerators with 5 or less people working full-time most commonly classified the number of Facebook KPIs used as being less than 3. Accelerators with 6 to 10 people working full-time most commonly classified the number of Facebook KPIs as being 3 or more, as well as accelerators with 11 to 20 people working full-time and more than 30 people working full-time.

II.2.16. Frequency of Facebook’s strategy evaluation

Table II.79. Frequency of Facebook’s strategy evaluation (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	0,59	0,61	0,00	1,00
6 to 10 people	0,53	0,74	0,00	0,00
11 to 20 people	0,67	0,52	1,00	1,00
More than 30 people	0,50	0,58	0,00	0,50

On average, accelerators of all sizes evaluate their Facebook marketing strategy quarterly. Accelerators with 11 to 20 people working full-time most commonly classified their Facebook’s strategy evaluation as being quarterly. Accelerators with 10 or less people working full-time and more than 30 people working full-time most commonly classified their Twitter’s strategy evaluation as being weekly or monthly.

II.2.17. Usage of Twitter Marketing to achieve objectives

Table II.80. Twitter marketing objectives: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time/ Twitter objectives	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	3,03	1,40	4,00	4,00	3,73	1,22	4,00	4,00
Improve website's visitor experience	2,09	1,30	1,00	1,50	1,87	1,06	1,00	2,00
Increase number of social media followers	3,00	1,57	1,00	3,50	3,60	1,45	4,00	4,00
Selling a service	1,97	1,23	1,00	1,00	2,60	1,40	1,00	2,00
Provide information regarding what your organization is doing	3,09	1,44	4,00	4,00	3,67	1,40	4,00	4,00
Enhance loyalty towards the brand	3,00	1,55	4,00	4,00	3,27	1,49	4,00	4,00
Lead generation	2,63	1,41	4,00	2,00	3,27	1,28	3,00	3,00

On average, accelerators with 5 or less people use Twitter marketing monthly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. The latest 3 objectives and ‘drive traffic to the organization’s website’ were most commonly classified by these accelerators as 4, which means they use Twitter marketing weekly to achieve these objectives.

On average, accelerators with 6 to 10 people working full-time use Twitter marketing weekly to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’ and ‘provide information regarding what the organization is doing’. All these 3 objectives were most commonly classified by these accelerators as 4, which means they use Twitter marketing weekly to achieve these objectives.

Table II.81. Twitter marketing objectives: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time/ Twitter objectives	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Drive traffic to the organization's website	4,00	0,89	5,00	4,00	5,00	0,00	5,00	5,00
Improve website's visitor experience	3,17	1,83	5,00	3,50	3,75	1,50	5,00	4,00
Increase number of social media followers	3,67	1,51	5,00	4,00	4,50	1,00	5,00	5,00
Selling a service	3,17	1,72	5,00	3,00	3,00	1,41	4,00	3,50
Provide information regarding what your organization is doing	4,00	0,89	5,00	4,00	4,50	0,58	4,00	4,50
Enhance loyalty towards the brand	3,50	1,52	5,00	3,50	4,75	0,50	5,00	5,00
Lead generation	3,50	1,64	5,00	4,00	4,25	0,96	5,00	4,50

On average, accelerators with 11 to 20 people working full-time use Twitter marketing weekly to ‘drive traffic to the organization’s website’, ‘increase number of social media followers’, ‘provide information regarding what the organization is doing’, ‘enhance loyalty towards the brand’ and ‘lead generation’. These objectives were most commonly classified by these accelerators as 5, which means in its majority they use Twitter marketing daily to achieve these objectives.

On average, accelerators with more than 30 people working full-time use Twitter marketing daily to ‘drive traffic to the organization’s website’, ‘increase the number of social media followers’, ‘provide information regarding what the organization is doing’ and ‘enhance loyalty towards the brand’. ‘Provide information regarding what the organization is doing’ was most commonly classified by these accelerators as 4, which means they use Twitter marketing weekly to achieve them. The remaining objectives were most commonly classified as 5, which mean these accelerators use Twitter marketing daily to achieve these objectives.

II.2.18. Usage of Twitter KPIs

Table II.82. Twitter KPIs: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Number of people working full-time / Twitter KPIs	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Engagement (replies, retweets, likes)	0,59	0,50	1,00	1,00	0,93	0,26	1,00	1,00
Organic impressions	0,28	0,46	0,00	0,00	0,40	0,51	0,00	0,00
Followers	0,66	0,48	1,00	1,00	0,60	0,51	1,00	1,00
Messages sent	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Responses rate & time	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Mentions	0,34	0,48	0,00	0,00	0,47	0,52	0,00	0,00
Profile visits	0,22	0,42	0,00	0,00	0,07	0,26	0,00	0,00
Tweets linking to you	0,13	0,34	0,00	0,00	0,40	0,51	0,00	0,00

On average, accelerators with 5 or less people working full-time and 6 to 10 people working full-time use as Twitter KPIs: ‘engagement’ and ‘number of followers’, which were also the most common Twitter KPIs classified by these accelerators as being used by them.

Table II.83. Twitter KPIs: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Number of people working full-time / Twitter KPIs	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Engagement (replies, retweets, likes)	0,67	0,52	1,00	1,00	1,00	0,00	1,00	1,00
Organic impressions	0,33	0,52	0,00	0,00	0,50	0,58	1,00	0,50
Followers	0,83	0,41	1,00	1,00	0,75	0,50	1,00	1,00
Messages sent	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Responses rate & time	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Mentions	0,50	0,55	1,00	0,50	0,00	0,00	0,00	0,00
Profile visits	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Tweets linking to you	0,33	0,52	0,00	0,00	0,25	0,50	0,00	0,00

On average, accelerators with 11 to 20 people working full-time use as Twitter KPI: ‘engagement’, ‘number of followers’ and ‘mentions’, which were also the most frequent Twitter KPI these accelerators classified as being used by them.

On average, accelerators with more than 30 people working full-time use as Twitter KPI: ‘engagement’, ‘organic impressions’ and ‘number of followers’, which were also the most frequent Twitter KPI these accelerators classified as being used by them.

II.2.19. Number of Twitter KPIs used

Table II.84. Twitter KPIs used (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	1,41	0,50	1,00	1,00
6 to 10 people	1,73	0,46	2,00	2,00
11 to 20 people	1,50	0,55	2,00	1,50
More than 30 people	1,50	0,58	2,00	1,50

On average, accelerators with 6 to 10 people, 11 to 20 people and more than 30 people working full-time tend to use 3 or more Twitter KPIs, while accelerators with 5 or less people working full-time tend to use less than 3 Twitter KPIs.

Accelerators with 5 or less people working full-time most commonly classified the number of Twitter KPIs used of being less than 3. Accelerators with 6 to 10 people, 11 to 20 people and more than 30 people working full-time most commonly classified the number of Twitter KPIs used of being 3 or more.

II.2.20. Frequency of Twitter’s strategy evaluation

Table II.85. Frequency of Twitter’s strategy evaluation (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	1,06	0,76	1,00	1,00
6 to 10 people	0,67	0,72	0,00	1,00
11 to 20 people	0,50	0,55	0,00	0,50
More than 30 people	0,50	0,58	0,00	0,50

On average, most accelerators of all sizes tend to evaluate their Twitter strategy quarterly. Accelerators with 5 or less people working full-time most commonly classified their Twitter’s strategy evaluation as being quarterly, while accelerators with 6 to 10 people, 11 to 20 people and more than 30 people most commonly classified their Twitter’s strategy evaluation as being weekly or monthly.

II.2.21. Digital areas of investment

Table II.86. Digital areas of investment: 5 or less people working full-time vs 6 to 10 people working full-time (basic statistics).

Area of investment	5 or less people working full-time				6 to 10 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Social media	0,50	0,51	1,00	0,50	0,53	0,52	1,00	1,00
E-mail marketing	0,41	0,50	0,00	0,00	0,27	0,46	0,00	0,00
Viral campaigns	0,06	0,25	0,00	0,00	0,07	0,26	0,00	0,00
Website design	0,47	0,51	0,00	0,00	0,40	0,51	0,00	0,00
Digital ads	0,16	0,37	0,00	0,00	0,20	0,41	0,00	0,00
Mobile	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Blogs	0,22	0,42	0,00	0,00	0,27	0,46	0,00	0,00
SEM	0,09	0,30	0,00	0,00	0,07	0,26	0,00	0,00
SEO	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Digital infrastructure	0,03	0,18	0,00	0,00	0,07	0,26	0,00	0,00
Digital brand experiences	0,03	0,18	0,00	0,00	0,13	0,35	0,00	0,00
People involved in DM	0,09	0,30	0,00	0,00	0,20	0,41	0,00	0,00
Video content development	0,31	0,47	0,00	0,00	0,20	0,41	0,00	0,00
Website maintenance and domain	0,03	0,18	0,00	0,00	0,13	0,35	0,00	0,00

On average, accelerators with 5 or less people working full-time and 6 to 10 people working full-time will mostly invest in ‘social media’, which was also the most common these accelerators classified as an area of investment in 2018.

Table II.87. Digital areas of investment: 11 to 20 people working full-time vs more than 30 people working full-time (basic statistics).

Area of investment	11 to 20 people working full-time				More than 30 people working full-time			
	Mean	Standard Deviation	Mode	Median	Mean	Standard Deviation	Mode	Median
Social media	0,67	0,52	1,00	1,00	0,00	0,00	0,00	0,00
E-mail marketing	0,33	0,52	0,00	0,00	0,00	0,00	0,00	0,00
Viral campaigns	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Website design	0,50	0,55	1,00	0,50	0,50	0,58	0,00	0,50
Digital ads	0,33	0,52	0,00	0,00	0,25	0,50	0,00	0,00
Mobile	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Blogs	0,50	0,55	0,00	0,50	0,75	0,50	1,00	1,00
SEM	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

SEO	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
Digital infrastructure	0,00	0,00	0,00	0,00	0,25	0,50	0,00	0,00
Digital brand experiences	0,17	0,41	0,00	0,00	0,00	0,00	0,00	0,00
People involved in DM	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Video content development	0,17	0,41	0,00	0,00	0,25	0,50	0,00	0,00
Website maintenance and domain	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

On average, accelerators with 11 to 20 people working full-time will invest in ‘social media’, ‘website design’ and ‘blogs’. The most frequent areas these accelerators classified as areas of investment in 2018 were ‘social media’ and ‘website design’.

On average, accelerators with more than 30 people working full-time will invest in areas such as ‘website design’ and ‘blogs’. The most frequent area these accelerators classified as an area of investment in 2018 was ‘blog’.

II.2.22. Number of investments in digital areas in 2018

Table II.88. Number of investments in digital areas in 2018 (basic statistics).

Number of people working full-time	Mean	Standard Deviation	Mode	Median
5 or less people	0,28	0,46	0,00	0,00
6 to 10 people	0,20	0,41	0,00	0,00
11 to 20 people	0,50	0,55	0,00	0,50
More than 30 people	0,00	0,00	0,00	0,00

On average, accelerators with 11 to 20 people working full-time will invest in more than two digital areas in 2018, and accelerators with 5 or less people, 6 to 10 people and more than 30 people working full-time will invest in 2 or less digital areas in 2018. The most frequent number of investment areas classified by all sizes of accelerators was of 2 or less.

Appendix III - Correlations using Kendall's Tau-b coefficient

Appendix II reveals the significant relations found using Kendall's tau-b coefficient, considering different significance levels.

- Correlations marked with a * are significant at a level of 5% significance;
- Correlations marked with a ** are significant at a level of 10% significance.

In this table, note that “regularly” means daily, “often” means weekly, “sometimes” means monthly, and “occasionally” means 1 to 3 times per year.

Table III.1. Significant correlations using Kendall's Tau-b coefficient.

Variable 1	Variable 2	Correlation	Meaning
Year of foundation of the accelerator (before 2011, between 2012 and 2014, after 2014)	Position of the survey respondent within the accelerator	0,240*	Survey participants from Marketing department tend to be from accelerators founded before 2011. Survey participants from Program Management and Direction departments tend to be from accelerators founded between 2012 and 2014. Survey participants from Operations department tend to be from accelerators founded after 2014.
	Number of full-time people working in the accelerator (5 or less vs more than 5)	-0,331*	Accelerators founded before 2011 tend to have more than 5 people working full-time. Accelerators founded after 2014 tend to have less than 5 people working full-time.
	Number of people working in the marketing team (5 or less vs more than 5)	-0,316*	Accelerators founded before 2011 tend to have more than 5 people working in the marketing team. Accelerators founded after 2014 tend to have less than 5 people working in the marketing team.
	Accelerator's frequency of using DM to “Drive brand awareness”	-0,372*	Accelerators founded before 2011 tend to use regularly/often DM to “Drive brand awareness”, while accelerators founded after 2014 tend to use it never/occasionally to do so; accelerators founded between 2012-2014 tend to use it sometimes to do so.

Year of foundation of the accelerator (before 2011, between 2012 and 2014, after 2014)	Accelerator's frequency of using DM to "Attract quality start-ups"	-0,253*	Accelerators founded before 2011 tend to use regularly/often DM to "Attract quality start-ups", while accelerators founded after 2014 tend to use it never/occasionally to do so, and accelerators founded between 2012 and 2014 tend to use it sometimes to do so.
	Accelerator's frequency of using Website to reach start-ups	-0,319*	Accelerators founded before 2011 tend to use regularly/often Website to reach start-ups, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it to do so.
	Accelerator's frequency of using Facebook to reach start-ups	-0,294*	Accelerators founded before 2011 tend to use regularly/often Facebook to reach start-ups, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach start-ups	-0,393*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach start-ups, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach corporates	-0,361*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach corporates, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using Facebook to reach investors	-0,249*	Accelerators founded before 2011 tend to use regularly/often Facebook to reach investors, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach investors	-0,384*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach investors, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach government	-0,327*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach the government, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.

Year of foundation of the accelerator (before 2011, between 2012 and 2014, after 2014)	Accelerator's frequency of using Facebook to reach universities	-0,251*	Accelerators founded before 2011 tend to use regularly/often Facebook to reach universities, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using Twitter to reach universities	-0,214**	Accelerators founded before 2011 tend to use regularly/often Twitter to reach universities, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using Instagram to reach universities	-0,225**	Accelerators founded before 2011 tend to use regularly/often Instagram to reach universities, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach universities	-0,392*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach universities, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using Quora & Reddit to reach universities	-0,243**	Accelerators founded before 2011 tend to use regularly/often Quora and Reddit to reach universities, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/ occasionally use it.
	Accelerator's frequency of using Twitter to reach media	-0,214**	Accelerators founded before 2011 tend to use regularly/often Twitter to reach media, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using Instagram to reach media	0,224**	Accelerators founded before 2011 tend to use regularly/often Instagram to reach media, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Accelerator's frequency of using YouTube to reach media	-0,358*	Accelerators founded before 2011 tend to use regularly/often YouTube to reach media, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.

Year of foundation of the accelerator (before 2011, between 2012 and 2014, after 2014)	Accelerator's frequency of using Quora & Reddit to reach media	-0,356*	Accelerators founded before 2011 tend to use regularly/often Quora&Reddit to reach media, while accelerators founded between 2012 and 2014 tend to use it sometimes, and accelerators founded after 2014 tend to never/occasionally use it.
	Number of social networks used regularly (weekly to daily) to reach investors (0, more than 1)	-0,222**	Accelerators founded before 2011 tend to use regularly 1 or more social media networks to reach investors, while accelerators founded after 2014 tend to use no social media network to reach to investors.
	Number of social networks used regularly (weekly to daily) to reach universities (0, more than 1)	-0,236**	Accelerators founded before 2011 tend to use regularly 1 or more social media networks to reach universities, while accelerators founded after 2014 tend to use no social media networks to reach to universities.
Country from where the accelerator is from (Portugal, Europe, North America, Middle-East&Africa, Asia&Oceania)	Accelerator's frequency of using LinkedIn to reach media	-0,279*	European accelerators tend to use regularly to often LinkedIn to reach media, while accelerators from Middle-East, Africa, Oceania and Asia tend to never use it or occasionally. Accelerators from North America use it sometimes.
	Number of social networks used regularly (weekly to daily) to reach media (2 or less, 3, 4)	-0,232**	European accelerators tend to use regularly more than 1 social network to reach media, while accelerators from Middle-East, Africa, Asia and Oceania tend to use no social network to reach them.
	Number of investments in digital areas (3 or more)	-0,222**	European and North American accelerators tend to invest in 3 or more digital areas in 2018, while accelerators from the Middle-East, Africa, Asia and Oceania tend to invest in 2 or less digital areas in 2018.
Position in accelerator (Marketing, Program Manager, Direction, Operations)	Number of people working full-time within the accelerator (5 or less vs more than 5)	-0,270*	Survey respondents working on Marketing or Program Management departments tend to be in accelerators with more than 5 people working full-time. Survey respondents working in Direction or Operations departments tend to be in accelerators with less than 5 people working full-time.

Position in accelerator (Marketing, Program Manager, Direction, Operations)	Nature of the acceleration program (general, horizontal, vertical or pre-acceleration)	0,243*	Survey respondents from Marketing or Program Management departments tend to be in accelerators running horizontal or pre-acceleration programs. Survey respondents from Direction or Operations departments tend to be in accelerators running general or vertical acceleration programs.
	Accelerator's frequency of using Facebook to reach start-ups	-0,364*	Survey respondents from Marketing or Program Management departments tend to perceive Facebook is regularly/often used to reach start-ups, while survey respondents from Direction or Operations departments tend to perceive it is never/occasionally used to reach them.
	Accelerator's frequency of using Twitter to reach start-ups	-0,248*	Survey respondents from Marketing or Program Management departments tend to perceive Twitter is regularly/often used to reach start-ups, while survey respondents from Direction or Operations departments tend to perceive it is never/occasionally used to reach them.
	Accelerator's frequency of using Instagram to reach start-ups	-0,215*	Survey respondents from Marketing or Program Management departments tend to perceive Instagram is regularly/often used to reach start-ups, while survey respondents from Direction or Operations departments tend to perceive it is never/occasionally used to reach them.
Nature of accelerator (private or public)	Accelerator's frequency of using Instagram to reach universities	0,212**	Public accelerators tend to use regularly/often Instagram to reach universities, while Private accelerators tend to never/occasionally use it to reach them.
	Accelerator's frequency of using YouTube to reach universities	0,208**	Public accelerators tend to use regularly/often YouTube to reach universities, while Private accelerators tend to never/occasionally use it to reach them.
	Accelerator's frequency of using YouTube to reach media	0,241**	Public accelerators tend to use regularly/often YouTube to reach media, while Private accelerators tend to never/occasionally use it to reach them.

Nature of accelerator (private or public)	Number of social networks used regularly (weekly to daily) to reach media	0,210**	Public accelerators tend to use 1 or more social networks regularly to reach media, while Private accelerators tend to use no social networks to reach them.
	Number of investment in digital areas (more or less than 3)	0,313**	Public accelerators tend to invest in 3 or more digital areas in 2018, while Private accelerators tend to invest in 2 or less digital areas in 2018.
Number of acceleration programs (one or two programs)	Accelerator's frequency of using DM to "Attract quality start-ups"	0,219**	Accelerators running two acceleration programs tend to use DM regularly/often to "attract quality start-ups", while accelerators running one program tend to use DM never/occasionally to do so.
	Accelerator's frequency of using Slack to reach start-ups	0,28*	Accelerators running two acceleration programs tend to use Slack regularly/often to reach start-ups, while accelerators running one program tend to use it never/occasionally to do so.
	Accelerator's frequency of using E-mail to reach corporates	-0,217**	Accelerators running one acceleration program tend to use E-mail regularly/often to reach start-ups, while accelerators running two programs tend to use it never/occasionally to do so.
	Nature of the acceleration's program	0,310*	Accelerators that are running two acceleration programs tend to be running a horizontal or pre-acceleration program. Accelerators running one program tend to be running general or vertical program.
	Number of Twitter KPIs used (more or less than 3)	-0,353*	Accelerators running one acceleration program tend to be using 3 or more Twitter KPIs, while accelerators running two acceleration programs tend to be using 2 or less KPIs.
Nature of acceleration program (general, vertical, horizontal, pre-acceleration)	Accelerator's frequency of using Facebook to reach the government	-0,223**	Accelerators running general or vertical programs tend to use Facebook regularly/often to reach the government. Accelerators running horizontal or pre-acceleration programs tend to use it never/occasionally to reach the government.

Nature of acceleration program (general, vertical, horizontal, pre-acceleration)	Accelerator's frequency of using Website to reach universities	-0,216**	Accelerators running general or vertical programs tend to use Website regularly/often to reach universities. Accelerators running horizontal or pre-acceleration programs tend to use it never/occasionally to reach universities.
Number of people working full-time (5 or less vs more than 5)	Accelerator's frequency of using DM to "Drive brand awareness"	0,311*	Accelerators with more than 5 people working full-time tend to use DM regularly/often to "Drive brand awareness", while accelerators with less than 5 people working full-time tend to use DM never/occasionally.
	Accelerator's frequency of using DM to "Attract quality start-ups"	0,261*	Accelerators with more than 5 people working full-time tend to use DM regularly/often to "Attract quality start-ups", while accelerators with less than 5 people working full-time tend to use DM never/occasionally.
	Accelerator's frequency of using Facebook to reach start-ups	0,302*	Accelerators with more than 5 people working full-time tend to use Facebook regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use Facebook never/occasionally to do so.
	Accelerator's frequency of using LinkedIn to reach start-ups	0,227**	Accelerators with more than 5 people working full-time tend to use LinkedIn regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use Facebook never/occasionally to do so.
	Accelerator's frequency of using Slack to reach start-ups	0,271*	Accelerators with more than 5 people working full-time tend to use Slack regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Flickr and Pinterest to reach start-ups	0,286*	Accelerators with more than 5 people working full-time tend to use Flickr and Pinterest regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.

Number of people working full-time (5 or less vs more than 5)	Accelerator's frequency of using Blog to reach start-ups	0,335*	Accelerators with more than 5 people working full-time tend to use Blog regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Quora and Reddit to reach start-ups	0,296*	Accelerators with more than 5 people working full-time tend to use Quora and Reddit regularly/often to reach start-ups, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Website to reach corporates	0,271*	Accelerators with more than 5 people working full-time tend to use Website regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Facebook to reach corporates	0,311*	Accelerators with more than 5 people working full-time tend to use Facebook regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Twitter to reach corporates	0,285*	Accelerators with more than 5 people working full-time tend to use Twitter regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Instagram to reach corporates	0,22**	Accelerators with more than 5 people working full-time tend to use Instagram regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using LinkedIn to reach corporates	0,241**	Accelerators with more than 5 people working full-time tend to use LinkedIn regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Slack to reach corporates	0,248**	Accelerators with more than 5 people working full-time tend to use Slack regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.

Number of people working full-time (5 or less vs more than 5)	Accelerator's frequency of using Blog to reach corporates	0,36*	Accelerators with more than 5 people working full-time tend to use Blog regularly/often to reach corporates, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using LinkedIn to reach investors	0,250*	Accelerators with more than 5 people working full-time tend to use LinkedIn regularly/often to reach investors, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Slack to reach investors	0,367*	Accelerators with more than 5 people working full-time tend to use Slack regularly/often to reach investors, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Quora and Reddit to reach investors	0,285*	Accelerators with more than 5 people working full-time tend to use Quora and Reddit regularly/often to reach investors, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Instagram to reach government	0,264**	Accelerators with more than 5 people working full-time tend to use Instagram regularly/often to reach the government, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Quora and Reddit to reach universities	0,249**	Accelerators with more than 5 people working full-time tend to use Quora and Reddit regularly/often to reach universities, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.
	Accelerator's frequency of using Quora and Reddit to reach media	0,256**	Accelerators with more than 5 people working full-time tend to use Quora and Reddit regularly/often to reach media, while accelerators with less than 5 people working full-time tend to use it never/occasionally to do so.

Number of people working full-time (5 or less vs more than 5)	Number of social networks used regularly (weekly to daily) to reach start-ups	0,231**	Accelerators with more than 5 people working full-time tend to use regularly 4 social networks to reach start-ups, while accelerators with less than 5 people working full-time tend to use regularly 2 or less social networks to reach them.
	Number of social networks used regularly (weekly to daily) to reach corporates	0,292*	Accelerators with more than 5 people working full-time tend to use regularly 2 or more social networks to reach start-ups, while accelerators with less than 5 people working full-time tend to use regularly none or one social networks to reach them.
	Number of E-mail KPIs used (more or less than 3)	0,383*	Accelerators with more than 5 people working full-time tend to use 3 or more E-mail KPIs, while accelerators with 5 or less people working full-time tend to use 2 or less E-mail KPIs.
Number of people working in Marketing team (5 or less vs more than 5)	Accelerator's frequency of using DM to "Drive brand awareness"	0,256**	Accelerators with more than 5 people in the Marketing team tend to use DM regularly/often to "Drive brand awareness", while accelerators 5 or less people in the Marketing team tend to use it never/occasionally to do so.
	Accelerator's frequency of using DM to "Provide online support and relevant content to corporates and investors"	0,275*	Accelerators with more than 5 people in the Marketing team tend to use DM regularly/often to "Provide online support and relevant content to corporates and investors", while accelerators 5 or less people in the Marketing team tend to use it never/occasionally to do so.
	Accelerator's frequency of using Instagram to reach start-ups	0,238**	Accelerators with more than 5 people in the Marketing team tend to use Instagram regularly/often to reach start-ups, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.

Number of people working in Marketing team (5 or less vs more than 5)	Accelerator's frequency of using Instagram to reach corporates	0,217**	Accelerators with more than 5 people in the Marketing team tend to use Instagram regularly/often to reach corporates, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using Instagram to reach investors	0,259*	Accelerators with more than 5 people in the Marketing team tend to use Instagram regularly/often to reach investors, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using YouTube to reach investors	0,239**	Accelerators with more than 5 people in the Marketing team tend to use YouTube regularly/often to reach investors, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using Instagram to reach government	0,33**	Accelerators with more than 5 people in the Marketing team tend to use Instagram regularly/often to reach the government, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using YouTube to reach government	0,311**	Accelerators with more than 5 people in the Marketing team tend to use YouTube regularly/often to reach the government, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using YouTube to reach universities	0,245**	Accelerators with more than 5 people in the Marketing team tend to use YouTube regularly/often to reach universities, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using Quora & Reddit to reach universities	0,191**	Accelerators with more than 5 people in the Marketing team tend to use Quora and Reddit regularly/often to reach universities, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.

Number of people working in Marketing team (5 or less vs more than 5)	Accelerator's frequency of using Email to reach media	-0,241**	Accelerators with less than 5 people in the Marketing team tend to use E-mail regularly/often to reach media, while accelerators more than 5 people in Marketing team tend to use it never/occasionally.
	Accelerator's frequency of using Instagram to reach media	0,221**	Accelerators with more than 5 people in the Marketing team tend to use Instagram regularly/often to reach media, while accelerators with 5 or less people in Marketing team tend to use it never/occasionally.
	Number of social networks used regularly (weekly to daily) to reach government	0,329**	Accelerators with more than 5 people in the Marketing team tend to use one or more social networks to reach the government. Accelerators with 5 or less people in the Marketing team tend to use no social networks to reach the government.

Appendix IV - Kruskal-Wallis test results

In Appendix IV are presented the results of Kruskal-Wallis test, to verify differences between means between accelerator's characteristics and DM objectives, and between accelerator's characteristics and digital channels used to reach out to start-ups, corporates and investors. The variables presented in the Tables below are the ones whose frequency of use was valued by accelerators, on average, as 3, 4 or 5, respectively monthly, weekly and daily.

- Correlations marked with a * are significant at a level of 5% significance;
- Correlations marked with a ** are significant at a level of 10% significance.

Table IV.1. Kruskal-Wallis test results – “location of the organization” and DM objectives.

	Objectives	Mean rank “location”		Kruskal Wallis test [p-value]
		Europe	North America	
Which type of objectives are you trying to achieve with DM	Drive brand awareness	17,50	19,90	0,49
	Attract quality start-ups	18,38	18,67	0,95
	Build an entrepreneurship community	18,17	18,97	0,82
	Provide relevant content to corporates and investors	18,00	19,20	0,75
	Provide online support	19,86	26,60	0,34
	Attract quality corporates	19,14	17,60	0,67
	Attract quality investors	18,05	19,13	0,77
	Support decision-making process	19,83	16,63	0,37

In Table IV.1, mean ranks of each variable allowed to anticipate that variables “location of the organization” and the frequency of using DM to achieve certain objectives were probably significantly equal. This assumption is confirmed when p-value is greater than 5%, which means that variables are not significantly different from each other.

Table IV.2 Kruskal-Wallis test results - “year of foundation of the organization” and DM objectives.

	Objectives	Mean rank “year of foundation”			Kruskal Wallis test [p-value]
		<2011	2012-2014	>2014	
Which type of objectives are you trying to achieve with DM	Drive brand awareness	36,14	24,89	20,28	0,006*
	Attract quality start-ups	34,07	24,11	23,16	0,064**
	Build an entrepreneurship community	25,00	28,68	24,81	0,65
	Provide relevant content to corporates and investors	26,86	30,34	20,91	0,15
	Provide online support	26,54	28,59	23,59	0,59
	Attract quality corporates	27,61	26,61	25,38	0,92
	Attract quality investors	26,18	30,66	21,06	0,14
	Support decision-making process	22,36	31,32	23,50	0,13

When it comes to “Drive brand awareness” and “attract quality start-ups”, their mean ranks from the Kruskal-Wallis test already allow to anticipate that organizations founded before 2011 are probably significantly different from organizations founded between 2012-2014 and after 2014. These suspicions are confirmed when the null hypothesis is rejected because p-value regarding “Drive brand awareness” is less than 0,05 and the p-value regarding “Attract quality start-ups” is less than 0,1. This means that, at a 5% significance level, the year of foundation and the frequency of usage of DM to drive brand awareness are significantly different and, at a 10% significance level, they year of foundation and the frequency of usage of DM to attract quality start-ups are significantly different.

Table IV.3 Kruskal-Wallis test results - “number of acceleration programs” and DM objectives.

	Objectives	Mean rank “number of programs”		Kruskal-Wallis test [p-value]
		One program	Two+ programs	
Which type of objectives are you	Drive brand awareness	26,58	26,38	0,98
	Attract quality start-ups	23,77	30,52	0,10**

trying to achieve with DM	Build an entrepreneurship community	24,60	29,31	0,25
	Provide relevant content to corporates and investors	26,35	26,71	0,94
	Provide online support	26,53	26,45	0,97
	Attract quality corporates	26,48	26,52	1,00
	Attract quality investors	26,56	26,40	0,98
	Support decision-making process	26,27	26,83	0,90

When it comes to “attract quality start-ups”, its mean ranks from the Kruskal-Wallis test already allow to anticipate that organizations running two or more acceleration programs are probably significantly different from organizations running only one acceleration program. These suspicions are confirmed when the null hypothesis is rejected because p-value regarding “Attract quality start-ups” is 0,1. This means that, at a 10% significance level, the number of acceleration programs and the frequency of usage of DM to attract quality start-ups are significantly different.

Table IV.4 Kruskal-Wallis test results - “nature of the acceleration program” and DM objectives.

	Objectives	Mean rank “nature of the programs”		Kruskal-Wallis test [p-value]
		General program	Vertical program	
Which type of objectives are you trying to achieve with DM	Drive brand awareness	18,00	22,74	0,24
	Attract quality start-ups	17,64	22,87	0,21
	Build an entrepreneurship community	19,36	22,26	0,48
	Provide relevant content to corporates and investors	19,05	22,37	0,45
	Provide online support	19,05	22,37	0,44
	Attract quality corporates	16,91	23,13	0,14
	Attract quality investors	19,59	22,18	0,56
	Support decision-making process	17,50	22,92	0,21

Mean ranks from Table IV.4 allowed to anticipate that variables “nature of the acceleration program” and the frequency of using DM to achieve the above-mentioned objectives were probably significantly equal. This assumption is confirmed when p-value is greater than 5%, which means that these variables are not significantly different from each other.

Table IV.5 Kruskal-Wallis test results - “number of people working full-time” and DM objectives.

	Objectives	Mean rank “number of people working full-time”		Kruskal-Wallis test [p-value]
		<= 5 people	>5 people	
Which type of objectives are you trying to achieve with DM	Drive brand awareness	22,02	31,34	0,02*
	Attract quality start-ups	22,70	30,60	0,05*
	Build an entrepreneurship community	23,85	29,36	0,17
	Provide relevant content to corporates and investors	23,78	29,44	0,17
	Provide online support	24,81	28,32	0,39
	Attract quality corporates	23,19	30,08	0,09**
	Attract quality investors	24,06	29,14	0,22
	Support decision-making process	24,54	28,62	0,33

When it comes to “Drive brand awareness”, “attract quality start-ups” and “Attract quality corporates”, their mean ranks (Table IV.5) from the Kruskal-Wallis test already allow to anticipate that organizations with more than 5 people working full-time and the usage of DM to reach the above-mentioned objectives are probably significantly different from each other. These suspicions are confirmed when the null hypothesis is rejected because p-value regarding “Drive brand awareness” and “attract quality start-ups” is less than 0,05 and the p-value regarding “Attract quality corporates” is less than 0,1. This means that, at a 5% significance level, the number of people working full-time and the frequency of usage of DM to drive brand awareness and attract quality start-ups are significantly different and, at a 10% significance level, they number of people working full-time and the frequency of usage of DM to attract quality corporates are significantly different.

Table IV.6 Kruskal-Wallis test results - “location of the organization” and DM channels.

	Channels	Mean rank “location of the organization”		Kruskal Wallis test [p-value]
		Europe	North America	
Which channels are used to reach start-ups	Website	15,40	22,83	0,03*
	E-mail	16,43	21,40	0,15
	Facebook	18,24	18,87	0,85
	Twitter	18,98	17,83	0,77
	LinkedIn	16,98	20,63	0,31
Which channels are used to reach corporates	Website	18,60	18,37	0,95
	E-mail	18,79	18,10	0,86
	Twitter	20,50	15,70	0,17
Which channels are used to reach investors	Website	16,79	20,90	0,24
	E-mail	18,55	18,43	0,98

When it comes to “using Website to reach out to start-ups”, its mean ranks (Table IV.6) from the Kruskal-Wallis test already allow to anticipate that organizations located in North America and located in Europe value differently the usage of DM to reach out to start-ups. These suspicions are confirmed when the null hypothesis is rejected, because the p-value regarding “Website” is less than 0,05, which means that, at a 5% significance level, the location of the organization and the frequency of usage of Website to reach out to start-ups are significantly different.

Table IV.7 Kruskal-Wallis test results - “year of foundation” and DM channels.

	Channels	Mean rank “year of foundation”			Kruskal Wallis test [p-value]
		<2011	2012-2014	>2014	
Which channels are used to reach start-ups	Website	34,71	25,23	21,06	0,03*
	E-mail	27,50	27,57	24,16	0,74
	Facebook	30,75	29,43	18,75	0,03*
	Twitter	31,21	25,82	23,31	0,28
	LinkedIn	28,21	28,66	22,03	0,35
Which channels are used to reach corporates	Website	25,86	26,09	27,63	0,93
	E-mail	20,04	33,34	22,75	0,01*
	Twitter	30,39	25,57	24,38	0,50
	Website	27,82	28,86	22,09	0,35

Which channels are used to reach investors	E-mail	22,61	31,98	22,38	0,06**
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When it comes to “using Website and Facebook to reach out to start-ups”, “using E-mail to reach corporates” and “using E-mail to reach investors”, their mean ranks (Table IV.7) from the Kruskal-Wallis test already allow to anticipate that organizations founded before 2011, between 2012 and 2014 and after 2014 value differently the usage of Website and Facebook to reach out to start-ups, and of E-mail to reach corporates and investors. These suspicions are confirmed when the null hypothesis is rejected, once the p-value regarding using Website and Facebook to reach start-ups is less than 0,05, which means that, at a 5% significance level, the year of foundation of the organization and the frequency of usage of Website and Facebook to reach out to start-ups are significantly different. Also at a 5% significance level, the year of foundation of the organization and the frequency of using E-mail to reach corporates is significantly different. At a 10% significance level, the year of foundation and the frequency of usage of E-mail to reach investors are significantly different.

Table IV.8 Kruskal-Wallis test results - “number of acceleration programs” and DM channels.

	Channels	Mean rank “number of acceleration programs”		Kruskal Wallis test [p-value]
		One program	Two+ programs	
Which channels are used to reach start-ups	Website	25,11	28,55	0,41
	E-mail	27,15	25,55	0,70
	Facebook	27,63	24,83	0,49
	Twitter	26,15	27,02	0,83
	LinkedIn	26,19	26,95	0,86
Which channels are used to reach corporates	Website	27,68	24,76	0,49
	E-mail	29,29	22,38	0,09**
	Twitter	27,05	25,69	0,75
Which channels are used to reach investors	Website	27,60	24,88	0,53
	E-mail	28,65	23,33	0,20

When it comes to “using E-mail to reach out to corporates”, its mean ranks (Table IV.8) from the Kruskal-Wallis test already allow to anticipate that organizations running one or more acceleration programs value differently the usage of E-mail to reach out corporates. These suspicions are confirmed when the null hypothesis is rejected, because the p-value regarding “E-mail” is less than 0,1, which means that, at a 10%

significance level, the number of acceleration programs of the organization and the frequency of usage of E-mail to reach out corporates are significantly different.

Table IV.9 Kruskal-Wallis test results - “number of acceleration programs” and DM channels.

	Channels	Mean rank		Kruskal Wallis test [p-value]
		General program	Vertical program	
Which channels are used to reach start-ups	Website	23,55	20,77	0,51
	E-mail	21,95	21,34	0,88
	Facebook	23,59	20,76	0,52
	Twitter	18,50	22,56	0,30
	LinkedIn	16,27	23,35	0,09**
Which channels are used to reach corporates	Website	24,27	20,52	0,37
	E-mail	25,55	20,06	0,20
	Twitter	19,77	22,11	0,58
Which channels are used to reach investors	Website	25,45	20,10	0,21
	E-mail	21,00	21,68	0,89

When it comes to “using LinkedIn to reach out start-ups”, its mean ranks (Table IV.9) from the Kruskal-Wallis test already allow to anticipate that organizations running general or vertical acceleration programs value differently the usage of LinkedIn to reach out start-ups. These suspicions are confirmed when the null hypothesis is rejected, because the p-value regarding “LinkedIn” is less than 0,1, which means that, at a 10% significance level, the nature of the acceleration programs of the organization and the frequency of usage of LinkedIn to reach out start-ups are significantly different.

Table IV.10 Kruskal-Wallis test results - “number of people working full-time” and DM channels.

	Channels	Mean rank “number of people working full-time”		Kruskal Wallis test [p-value]
		<= 5 people	>5 people	
Which channels are used to reach start-ups	Website	26,07	26,96	0,84
	E-mail	24,78	28,36	0,37
	Facebook	22,13	31,22	0,02*

	Twitter	23,87	29,34	0,16
	LinkedIn	22,96	30,32	0,07**
Which channels are used to reach corporates	Website	22,37	30,96	0,03*
	E-mail	26,61	26,38	0,97
	Twitter	22,11	31,24	0,02*
Which channels are used to reach investors	Website	25,81	27,24	0,74
	E-mail	27,11	25,84	0,76

When it comes to “using Facebook and LinkedIn to reach out start-ups” and “using Website and Twitter to reach corporates”, their mean ranks (Table IV.10) from the Kruskal-Wallis test already allow to anticipate that organizations with more than 5 people working full-time value differently the usage of these channels to reach out start-ups and corporates. These suspicions are confirmed when the null hypothesis is rejected, because the p-value regarding “Facebook” is less than 0,05, which means that, at a 5% significance level, the number of people working full-time and the frequency of usage of Facebook to reach out start-ups are significantly different. Also at a 5% significance level, it is possible to observe that the number of people working full-time and the frequency of using Website and Twitter to reach out Twitter are significantly different from each other. At a 10% significance level, it is possible to observe that the number of people working full-time and the frequency of usage of LinkedIn to reach out start-ups are significantly different from each other.