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**INSTITUTO
UNIVERSITÁRIO
DE LISBOA**

The impact of Artificial Intelligence on Customer Loyalty and Entrepreneurship

João Maria Martins Rodrigues da Silva

Master in Management

Supervisors:
PhD, Prof. Renato Costa, Assistant Professor, Department of Marketing Strategy and Operations, Iscte

PhD, Prof. Rui Gonçalves, Assistant Professor, Department of Information Science and Technology, Iscte

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Acknowledgements

Resumo

Hoje em dia, todas as empresas lutam para serem bem-sucedidas, no entanto, poucas delas realmente o são. A inteligência artificial é algo que está a revolucionar o mercado, bem como a forma como as empresas se estruturam e por isso pode ter um papel fundamental. Com este trabalho pretendo iluminar quem está à procura de respostas sobre os efeitos que a inteligência artificial pode ter na fidelidade do cliente e no empreendedorismo. Para isso, realizei um inquérito online, respondido por 103 pessoas e fiz 11 entrevistas a pessoas que trabalharam ou estão a trabalhar numa destas três áreas. Com isso, pretendo ter uma melhor noção sobre o impacto que a IA está a ter ou pode vir a ter num futuro próximo nestas áreas, os benefícios e desvantagens que podem criar para as empresas, ou mesmo a utilidade que pode ter para o lançamento de um negócio próprio. Após realizar o questionário e as entrevistas e comparando com a revisão de literatura cheguei a algumas conclusões desde já o facto de num futuro bastante próximo a IA ser fundamental para o sucesso de qualquer empresa. Terá inevitavelmente de usar ferramentas de AI para otimizar processos, poupar nos custos, mas nunca descaracterizando a empresa. Por outro lado, a satisfação do cliente é extremamente importante pois leva a uma recompra por parte dos mesmos e à boa publicidade que irão fazer junto de terceiros, porém isto só é conseguido quando existe um bom mix entre a qualidade do vendedor e do produto.

Palavras-chave: Inteligência Artificial, Lealdade de cliente, empreendedorismo, Machine learning, Indústrias, Vendedor, Produto, Marketing, E-Commerce

JEL classification:

- I230 Higher Education; Research Institutions;
- L100 Market Structure, Firm Strategy, and Market Performance: General

Abstract

Nowadays, every company struggles to success, however there are few of them that actually do. Artificial intelligence is something that is revolutionize the market, as well as, the way that companies structure themselves. This work pretends to illuminate who is searching about the effects that the artificial intelligence can have on customer loyalty and on entrepreneurship. To do that, I created an online survey, answered by 103 people and I made eleven interviews to people that worked or are working in one of these three areas. With these, I pretend to have a better notion about the impact that AI is having or can have in a near future in these areas, the benefits and disadvantages that can create for the companies, or even the utility that can be for a worker launch his own business. After conducting the questionnaire and the interviews and comparing it with the literature review, I came to some conclusions right now that in a very near future the use of AI will be fundamental to the success of any company. You will inevitably have to use AI tools to optimize processes, save costs, but never mischaracterize the company. On the other hand, customer satisfaction is extremely important because it leads to a buyback from the clientes and the good publicity they will do with third parties, however this is only achieved when there is a good mix between the quality of the salesman and the product.

Key Words: Artificial Intelligence, Customer Loyalty, Entrepreneurship, Machine learning, Industries, Salesman, Product, Marketing, E-Commerce

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Abreviation List

ABL –Affective Stage of Brand Loyalty

AI – Artificial Inteligence

COBL – Cognitive Brand Loyalty

COO – Country of Origin

COR – Country of Origin

CVC – Corporate Venture Capital

ML – Machine Learning

R&I – Research and Innovation

RE – Relationship Equity

RQ – Research Question

RQ – Research Questions

S3 – Smart Sprecialization Strategies

VE – Value Equity

Chapter I – Introduction

1.1. Framework

I will write a brief overview about the three main topics of my thesis: **Customer Loyalty, Entrepreneurship** and **Artificial Inteligence**. It is important to have a notion of these topics before moving on to the literature review, interviews and conclusions.

It exists a huge amount of companies that nowadays face the challenge of surviving in markets really comepetitive and with uncertanty, where the competitiveness is unevitable (Bresser & Powalla, 2012). Competitive dynamics are well known for impacts on sustainability of advantage positions as well as in firm survival (Burgelman & Grove, 2007). In the two latest decades, Customer Relationship Management (CRM) has grown to be one of the major trends in marketing, both in academic and in practice.

This evolution took form in a dramatic shift in the domain, evolving from transaction-oriented marketing to relationship-oriented marketing (Gronroos, 1997), and builds strongly on the belief that it is several times demanding – i.e. expensive – to sell an additional product to an existing customer than to sell the product to a new customer (Rosenberg & Czepiel, 1984).

Hence, it has been argued that it is particularly beneficial to build solid and fruitful customer relationship, and in this discourse, customer loyalty has been introduced as one of the most important concepts in marketing (Reichheld, 1996). From an analytical point of view, several tools have emerged in recent years that enable companies to strengthen their relationships with customers.

Moreover, the rise of new media such as the World Wide Web, and the continuous technological improvements have further increased the opportunities to communicate in a more direct, one-to-one manner with customers (Bruckinx & Van den Poel, 2005). Customer Loyalty generates numerous benefits and hence is a critical aim of many marketing startegies (Jacob & Chestnut, 1978). Most importantly, customer loyalty creates a stable pool of customer for a firm´s product or service (Oliver, 1997).

A small shift in customer retention rates can make a large difference for earnings, and this influence accelerates over time. Loyal customers buy more, are willing to pay higher prices, and generate positive word of mouth, thus suggesting a strong link between loyalty and profitability (Reichheld, 1993; Wright & Sparks, 1999; Zeithaml, Berry, & Parasuraman, 1996).

Having now a brief look to **entrepreneurship**, Schumpeter (1911) first developed the idea that entrepreneurs are the backbone of the economy, emphasizing the role played by entrepreneurs in creating wealth and revitalizing economic growth.

However, what explains the observed persistent differences in terms of entrepreneurial activities within countries and across regions today remains largely unexplored. More specifically, for Caliendo, Fossen & Kritikos (2014), in countries like the U.S, Sweden and Germany, only one in ten employed individuals are self-employed.
The concept "entrepreneurship" has become a catchword: policy-makers regard entrepreneurship as a solution to range of societal problems, while in academia entrepreneurship has grown significantly and can be regarded as successful and prosperous scholarly field.

Many studies have analysed the cognitive aspects of the evolution of the field, for the example by employing different forms of bibliometric analysis to synthesize the lnowledge and methodologies used (De Bruin, Brush & Welter, 2016).

However, even if we can assume that entrepreneurship is influenced by "exemplary research", i.e., by those scholars who produce interesting research and attract others to build on their work (Baker, Aldrich & Nina, 1997), the field is not only shaped by those leading the cognitive development, but also by the social development of the field and the large number of scholars who read and cite the same literature, attend the same conferences, collaborate in joint projects, co-author articles and create social networks (Knorr-Cetina, 1999; Whitley, 2000).

1.2. Research Problem

In recent times organizations of all types and sizes have increasingly come to understand the importance of customer satisfaction. It is widely understood that it is far less costly to keep existing customers than it is to win new ones, and it is becoming accepted that there is a strong link between customer satisfaction, customer retention and profitability (Hill & Alexander, 2016).

In the future, artificial intelligence (AI) appears likely to influence marketing strategies, including business models, sales processes, and customer service options, as well as customer behaviors. These impending transformations might be best understood using three illustrative cases from diverse industries. First, in the transportation industry, driverless, AI-enabled cars may be just around the corner, promising to alter both business models and customer behavior.

Taxi and ride-sharing businesses must evolve to avoid being marginalized by AI-enabled transportation models; demand for automobile insurance (from individual customers) and breathalyzers (fewer people will drive, especially after drinking) will likely diminish, whereas demand for security systems that protect cars from being hacked will increase (Hayes, 2015).

Second, AI will affect sales processes in various industries. Most salespeople still rely on a telephone call (or equivalent) as a critical part of the sales process. In the future, salespeople will be assisted by an AI agent that monitors tele-conversations in real time. Also, in the future, firms may primarily use AI bots, which—in some cases—function as well as human salespeople, to make initial contact with sales prospects. But the danger remains that if customers discover that they are interacting with a bot, they may become uncomfortable, triggering negative consequences.

Third, the business model currently used by online retailers generally requires customers to place orders, after which the online retailer ships the products (the shopping-then-shipping model) (Agrawal, Gans & Goldfarb, 2018; Gans *et al.*, 2017). With AI, online retailers may be able to predict what customers will want; assuming that these predictions achieve high accuracy, retailers might transition to a shipping-then-shopping business model. That is, retailers will use AI to identify customers' preferences and ship items to customers without a formal order, with customers having the option to return what they do not need (Agrawal *et al.*, 2018; Gans *et al.*, 2017).

The three use cases (above) illustrate why so many academics and practitioners anticipate that AI will change the face of marketing strategies and customers' behaviors. In fact, a survey by Salesforce shows that AI will be the technology most adopted by marketers in the coming years (Columbus, 2019). The necessary factors to allow AI to deliver on its promises may be in place already; it has been stated that "this very moment is the great inflection point of history" (Reese, 2018).

1.3. Objectives

The main objective of this dissertation is to study and measure the impact that Artificial Intelligence can have on customer loyalty, as well as, on entrepreneurship. In one hand, the purpose of my thesis is to find out, if AI can be used in favor of customer loyalty by the companies and to which extend. On the other hand, to find out if AI is beneficial for an entrepreneur when starting a business, namely by getting read of some tasks that are not crucial for the entrepreneur when launching a new project. To assure these main objectives I will have to have a look on:

→ What have been discover so far about AI

→ What type of industries/projects have a good contribution from AI

→ What type of customer loyalty programs exists nowadays and have a positive impact from AI

→ Does AI influence the will to launch a new business? If yes, in which circumstances?

- IO1 – Analyze the impact of AI in the different economic sectors in order to assess its degree of acceptance and adaptation
- IO2 – Analyze the impact of customer loyalty programs and degree of customer loyalty with the brand having the support of AI
- IO3 – Assess the leverage needed to boost entrepreneurship in the market and within the company with the support of AI

1.4. Thesis Structure

In order to achieve the objetives that I purpose and answering the research question elaborated, this thesis is composed by the following structure:

In the chapter I, it represents the introduction, that gives a brief overview of the theme, talking about the research problem and the main objectives of my work.

In the chapter II is where the literature review is done. There are the main authors on these working fields, talking about what is Artificial Intelligence, Customer Loyalty and Entrepreneurship. Moreoveor, in chapter II about customer loyalty I will take also about loyalty programs and the relation between customer satisfaction and customer loyalty.

In the chapter III, the are written the main impacts that Artificial Intelligence can have on customer loyalty and on entrepreneurship.

In the chapter IV, it will be written about the theoretical approach of the topic

Following this, it will be the chapter V, where will be written about the metedology. In here, it is written about the investigation model and a description of the samples

In the chapter VI is presented all the results and will be discussed all that information gather with the literature review and the answers I got from the online survey.

Finally, in the chapter VII, there will be the main conclusions that include final considerations, what this experience contribute to my academic experience, suggestions for future investigations and how could this work contribute to the business strategy.

Chapter II – Theoretical Overview

2.1. Artificial Intelligence: AI Adoption

Researchers propose that AI "refers to programs, algorithms, systems and machines that demonstrate intelligence" (Shankar, 2018), is "manifested by machines that exhibit aspects of human intelligence" (Huang & Rust, 2018), and involves machines mimicking "intelligent human behavior" (Syam & Sharma, 2018). It relies on several key technologies, such as machine learning, natural language processing, rule-based expert systems, neural networks, deep learning, physical robots, and robotic process automation (Davenport, 2018).

By employing these tools, AI provides a means to "interpret external data correctly, learn from such data, and exhibit flexible adaptation" (Haenlein, Kaplan, Tan & Zhang, 2019). Another way to describe AI depends not on its underlying technology but rather its marketing and business applications, such as automating business processes, gaining insights from data, or engaging customers and employees (Davenport & Ronanki, 2018).

Finally, having a quick brief over Artificial Intelligence, According to Lustosa (2004), the term AI first appeared in 1956. The idea was machines have the same human intelligence capabilities and could reproduce intelligent behavior. Gunkel (2012) stated that the concept of AI was first defined and characterized by Alan Turing in 1950. The term AI is related to the development of expert systems to solve the problems in specific areas, such as medicine, which has benefited greatly from AI developments (Mendes, 1997).

Given a more recent perspective, Librantz, Araújo, Alves, Belan, Mesquita and Selvatici (2017) says that AI defined as a set of items (e.g. algorithms, robotics, and neural networks), which allows the software to have intelligence capabalities compared to a human being, including the ability to learn with minimal human interference. Unlike Obermeyer and Emanuel (2016), medicine is considered an area where specialists are extremely difficult to replace (Librantz *et al.*, 2017). However, the use of these machines makes perfect sense and that it improves the doctor´s ability to make a better decision and with a significant reduction in the analysis process (Librantz *et al.*, 2017). It is not only in radiology that AI has had an impact, in medicine, this has also happened, as has been the development of software to identify the malignant dermatological lesions.

Lab exams are also analyzed almost automatically. Paiva and Prevedello (2017) consider that these technological advances are mainly due to three factors: the abundance of existing data, the development of ANN, and reduced hardware cost. Customers appear to hold AI to a higher standard than is normatively appropriate (Gray, 2017), as exemplified by the case of driverless cars. Customers should adopt AI if its use leads to significantly fewer accidents; instead, customers impose higher standards and seek zero accidents from AI.

Understanding the roots of this excessive caution is important. A preliminary hypothesis suggests that customers trust AI less, and so hold AI to a higher standard, because they believe that AI cannot "feel" (Gray, 2017). Task characteristics also influence AI adoption. To the extent a task appears subjective, involving intuition or affect, customers likely are even less comfortable with AI (Castelo, 2019). Research confirms that customers are less willing to use AI for tasks involving subjectivity, intuition, and affect, because they perceive AI as lacking the affective capability or empathy needed to perform such tasks (Castelo *et al.*, 2018).

Tasks differ in their consequences; choosing a movie is relatively less consequential but steering a car may involve more consequences. Using AI for consequential tasks is perceived as involving more risk, in turn reducing adoption intentions. Early work has found support for this hypothesis, more so among more conservative consumers for whom risks are more salient (Castelo *et al.,* 2018; Castelo & Ward, 2016).

Finally, customer characteristics may also impact AI adoption. We build from two points: (1) when outcomes are consequential, this increases perceptions of risk (Bettman, 1973), and (2) women perceive more risk in general (Gustafsod, 1998) and take on less risk (Byrnes, Miller, & Schafer, 1999). Hence, early work has found that women (vs. men) are less likely to adopt AI, especially when outcomes are consequential (Castelo and Ward 2016). Moving beyond demographics, other factors also impact the extent of AI adoption, e.g., to the extent a task is salient to a customer's identity, the customer may be less likely to adopt AI (Castelo, 2019).

To elaborate, if a certain consumption activity is central to a customer's identity, then the customer likes to take credit for consumption outcomes (Leung, Paolacci, & Puntoni, 2018). Some customers perceive that using AI for these consumption activities is tantamount to cheating, and this hinders the attribution of credit post-consumption. Therefore, if an activity is central to a customer's identity, then the customer may be less likely to adopt AI (for this activity).

2.1.1. The Challenges of Big Data and Data Science

"Big data and data science are being used as buzzwords and are composites of many concepts," says the US National Institute of Standards and Technology (NIST, 2015) in a 2015 "framework" report on "big data" (NIST, 2015). Social scientists must come to grips with the current dramatic transformations in the communication of information, which parallel the striking changes in transportation in the nineteenth century. In 1816, using horse-driven stagecoaches, mule-driven canal boats, or sailing packets, a trip between Philadelphia and Quebec took more than four days.

By 1860, with the advent of steam driven trains and steamboats, the time and cost for travel dropped by over two-thirds, and the same trip took just over one day (Taylor, 1951). These changes created new trading networks, new opportunities for migration, new kinds of cities with commuter suburbs, and new understandings of the world, with enormous implications for politics, economics, and society. Changes every 20 years in information technologies punctuated the history of the late nineteenth, twentieth, and early twenty-first centuries: telephones (1870–1890s), phonographs (1870–1890s), cinema (1890–1920s), radio (1900–1920s), television (1940–1950s), mainframe computers (1940–1950s), personal computers (1970–1980s), the internet and World Wide Web (1980–2000s), cell phones (1980–2000s), and smart phones (2000s–present).

Accordingly to Laney (2001), The most fundamental innovation came with the move from analog devices to digital ones, starting in the 1950s and proceeding dramatically in the 1990s and thereafter. These changes brought (a) extensive digital datafication, in which myriad events are now digitally recorded; (b) widespread connectedness, in which events and people are identified so that they can be linked up with one another; (c) pervasive networking, such that people are embedded in a community of interacting users who become nodes in larger networks; and (d) ubiquitous computer authoring, where computers create new information that becomes part of the social system and its culture.

For those of us who remember when computer memories were measured in kilobytes instead of terabytes (a factor of a billion more), "big data" seems like a moving target, but the term has arisen despite the advances in computer power because data seem to be growing faster than our ability to process them. The total volume in bytes, the variety (text, images, audio, video, sensor, social media, and other forms), and the daily velocity (Laney, 2001) of data are growing

even faster than computing power. The large volume leads to problems of storing and managing data.

The growth in variety adds the difficulties of translating data from one form to another, and the growth in velocity leads to the need to edit data on the run and to choose what is important. More recently a fourth concern, the veracity of data, adds another layer of complexity on top of volume, variety, and velocity. Size, complexity, and technological challenges provide one definition of big data (Ward & Barker, 2013), but they do not seem a sufficient basis for heralding a sea-change in our data environment, since the race between data set size and computer capabilities goes back to the advent of computing.

The National Institute of Standards and Technology has more usefully proposed that "fundamentally, the Big Data paradigm is a shift in data system architectures from monolithic systems with vertical scaling (i.e., adding more power, such as faster processors or disks, to existing machines) into a parallelized, 'horizontally scaled', system (i.e., adding more machines to the available collection in order to deal with volume, variety, and velocity) that uses a loosely coupled set of resources in parallel" (NIST, 2015). But the statistician Donoho (2017) objects that "the new skills attracting so much media attention are not skills for better solving the real problems of inference from data; they are coping skills for dealing with organizational artifacts of large-scale cluster computing." We also do not know whether this new architecture is permanent or transient.

Accordingly to Donoho (2017), beyond the sheer amount of data, the truly distinguishing features of the big-data revolution are the new technologies for recording, connecting, networking, and creating information. Human interactions through phone calls, email, texts, tweets, social media posts, and other technological methods are now digitally recorded, time- and location-stamped, and attributable to nodes in networks in ways that go far beyond the much more ephemeral media of the past.

Many business, governmental, social, and scientific tasks now have digital trails, such as FedEx tracking services, Web searches and purchases, parking meter payments, automobile trips, tax payments, photographs of social gatherings, weather and environmental measurements, digital images from microscopes and telescopes, and much more. When these are combined with the facts that the World Wide Web is an excellent site for social networks and accessing information and that computers can now author information and interact with us—perhaps even

producing artificial intelligence and autonomous robot-like entities and virtual realities—the impression is not merely of big data but of immersive data that surround us in our daily lives.

The "decentralization of data" identified by NIST (2015) may also be more than just a set of techniques for dealing with large computing problems, but the future shape of computing and the internet is still not clear. Consequently, the real impact of the big-data revolution is not so much the amount of data as a change in our cognitive environment (Lugmayr *et al.,* 2016, Neumann 2016, Schroeder 2018) that requires new perspectives to deal with datafication, connectedness, networking, and computer authoring. These phenomena stem from the invention of new technologies including innovative methods in data science.

One well-known Venn diagram (Conway, 2013) places data science at the intersection of three areas: computer programming skills, mathematics and statistics knowledge, and substantive expertise in a field of research. The diagram includes machine learning as an important aspect of data science because machine learning deals directly with data and discovers patterns within it. No doubt the surprising success of machine learning (especially deep learning) in making predictions is one reason for the popularity of data science, but we do not know why deep learning works so well (Knight, 2017).

In a famous article in 1962, the statistician John Tukey averred that perhaps he was not a statistician because "I have come to feel that my central interest is in data analysis, which I take to include, among other things: procedures for analyzing data, techniques for interpreting the results of such procedures, ways of planning the gathering of data to make its analysis easier, more precise or more accurate, and all the machinery and results of (mathematical) statistics which apply to analyzing data" (Tukey 1962).

Table 1 The seven activities of data science [a]

Activities	Examples
Data gathering, preparation, and exploration	Survey data, experimental data, textual data

Data cleaning and exploratory data analysis methods for checking on outliers and data quality |
| Data representation and transformation | Relational and nonrelational databases

Networks and graphs

Other Mathematical structures for data |
| Computing with data | R and Python

Programming packages, text manipulation languages

Cluster and cloud computing

Reproducible workflows |
| Data modelling | Determining or hypothesizing data generating probability functions, structural and predictive modeling |
| Data visualization and presentation | Types of visualizations and graphs

Rules for labeling and presenting data

Psychological impacts of various displays |
| Data archiving, indexing, and search and data governance | Standards for open data and reproducibility

Determining rules for access and privacy protection where necessary |
| Science about data science | How people do data science

Impacts of data science and big data on society |

[a] The activities are quoted from Donoho (2017) except for "Data archiving, indexing, and search and data governance.

Judging from Table 1, data science borrows methods and techniques that go beyond the traditional core of statistics, which is largely encompassed in item 4, "data modeling." Techniques of data gathering and preparation are typically taught in subject matter disciplines even though statistics started as an endeavor to collect data on the state and its people through censuses and

surveys. Computer science and other academic departments deal with data representation and transformation and with computation.

Data visualization and presentation often involve media laboratories and psychology departments. Data archiving, indexing, and availability form the core of work in schools of library science and their modern incarnations as schools of information. In one subject matter area, bioinformatics, more than 100 colleges and universities now offer programs that focus on these tasks, and there are a few digital humanities, social sciences, and environmental science programs. But at the moment it seems that the most popular way to move forward in this area is to create "data science" programs, including computer science, information, and statistics, which allow for relationships with subject matter disciplines.

The unsolved problem is how the applied data science being done in these disciplines can be incorporated into data science programs. For example, in addition to benefiting from using data science and big data, the social sciences can provide fundamental help in understanding the social construction and meaning of data, the causal impact of new information technologies, the ethical issues of privacy and data ownership, and the best ways for social institutions to use cyberinfrastructure (Berman & Brady, 2005). Data science must encompass these issues.

2.1.2. What kind of problems can Data Science solve?

There is so much hyperbole about big data and data science that one might think that we have either solved or obviated four of the most basic problems of empirical research: (a) forming concepts and providing measures of them; (b) providing reliable descriptive inferences; (c) making causal inferences from past experience; and (d) making predictions about the future. Data science has, in fact, made some contributions to solving each of them, especially forming concepts and making predictions about the future, but they continue to be fundamental and difficult problems (Smith, 2018).

Artificial intelligence researchers have used unsupervised machine learning methods so that computers learn concepts in much the same way as political scientists have historically used factor or cluster analysis to identify concepts, as in the study of texts described above. One of the most informative studies of concept formation (Thagard, 1992) used artificial intelligence models to understand "conceptual revolutions" in science. Machine learning excels at finding patterns, so it can be helpful in concept formation, but the basic problems of the interplay between defining concepts inductively or deductively, phenomenologically or ontologically, and pragmatically or theoretically remain.

We do have some better tools to deal with them, such as model-based clustering techniques (e.g., Ahlquist & Breunig, 2012) that allow for the evaluation of uncertainty in typologies, but concepts such as an atom, species, democracy, or topic are still very deep ideas based on a complicated interplay between theory and data that goes beyond mere pattern detection— and that is why conceptual revolutions in science (e.g., quantum theory, plate tectonics, evolution, relativity theory, or topic analysis) are such a big deal. They reflect a gestalt change in the way we see the world. It is also why users of these methods must proceed carefully, as pointed out in the discussion about analyzing texts and topics.

Data science methods can help us to explore and describe data, to find interesting patterns in them, and to display them effectively. The use of big data helps us with descriptive inferences because it often provides a complete list of arrests, registered voters, food stamps recipients, etc., but the problem of defining the proper universe remains, since we may care about crimes, potential voters, or those eligible for food stamps, respectively. Moreover, internet samples are especially problematic because it is hard to define what universe they represent and how they

were sampled from that universe. Having a lot of data does not ensure that they represent in a statistically reliable way (e.g., a random sample) an interesting and definable universe.

There are certainly practical and technical problems for which achieving a good prediction using machine or statistical learning is a satisfactory, and perhaps optimal, solution. Kleinberg Babaioff, Dughmi, Kleinberg & Slivkins (2015) give an example involving decisions about hip or knee surgery where the surgeries only make sense if the patients live long enough to get through their typically lengthy rehabilitation periods. Yarkoni and Westfall (2017) provide examples from psychology, such as inferring the "big five" personality traits from the "likes" on Facebook pages and inferring the accuracy of people's memories about faces from fMRI data.

Nickerson and Rogers (2014) show how predictive scores regarding campaign contributions or voting turnout can be used to increase the efficiency of campaigns. In research problems, good predictive methods can assure acceptable covariate balance in matching methods, high-quality classification of documents according to some characteristic, accurate imputation for missing values, good fits for curves in regression discontinuity designs, powerful instruments for instrumental variables estimation, and so forth.

At the same time, political scientists need to think harder about how to combine information about causal mechanisms from strongly identified research designs with sophisticated prediction methods and formal modeling to improve our ability to make projections about the future. These projections should take into account behavioral responses, heterogeneity in causal impacts, and general equilibrium effects that occur when policies are scaled up from a small experiment.

This requires combining models, causal estimates, and predictions in ways envisioned by the Empirical Implications of Theoretical Models movement (Granato & Scioli, 2004) and in ways undertaken by economists who joined vector autoregressions with concerns about causal mechanisms and macroeconomic models (Christiano, 2012). Athey (2018) discusses some ways to do this, and perhaps her most important claim is that data science methods make it possible to develop better systematic model selection methods based on the data instead of specification searches that often involve multiple estimations and repetitive parsing of models until one model is presented, somewhat disingenuously, as "the model."

Data science methods now make possible data-driven model selection using cross-validation and other approaches, estimation and averaging over many models, and accounting for model

uncertainty as well as data uncertainty. Data science currently provides many useful tools for political scientists, but their primary contribution is to provide for automated pattern recognition and better methods for prediction.

Big data and data science provide extraordinary new sources of data and methods for doing research. They are also changing the world in ways that spawn new kinds of political issues. They broaden the kind of quantitative work that can be done, and they bring political scientists into the middle of societal events in new ways through work on political campaigns, on the impacts of the media, on the operation of cities, on terrorism and cyberwarfare, on the design of voting and political systems, and many other areas. As this happens, political scientists will certainly do more and better research, but they will also have to think about the intellectual and practical value of their role as system designers when they find themselves or their work used to create new policies or social mechanisms.

Just as engineers, lawyers, and increasingly economists use their knowledge about society to design social institutions, political scientists are now developing the tools to redesign political systems. How will this role be valued in the academy? What ethical and intellectual issues does it raise?

2.2. Customer Loyalty

Customer loyalty is defined as: "a measure of the degree of re-purchase of a particular trade mark by the customer". It is also known as: "a measure of the customer's willingness to engage in reciprocal utilitarian participation with the company's activities in regard to its products and services" (Kotler & Scheff, 1997). According to Tabaku and Zerellari (2015), there are two approaches on customer loyalty: behavioral and attitudinal.

The behavioral approach on customer loyalty refers to the customer consistently and continuously buying from the same provider. The behavioral dimension of the loyalty reflects the extent of the customers repurchase from the organization and his total purchases of the same product category over a specified period of time (Bove & Johnson, 2006).

Whereas, attitudinal loyalty is a result of a psychological connection with the product or service, involving a preference and components like a positive attitude and commitment. Guest (1944) is the first researcher to suggest that loyalty can be measured in terms of the attitude towards customers by asking one question to respondents: Which of these brands do you prefer most? This approach was later followed by a group of researchers. Loyalty was treated as a state, preference, and intention of purchase.

Loyal customers guarantee a reduction in marketing costs for long periods of time. (Mascarenhas, Kesavan & Bernacchi, 2006). It is known that there is a positive relationship between customer loyalty and profitability. Companies try to build long lasting relationships with customers as the feelings of attachment leads to generation of higher profits. Entrepreneurs are looking for progressive tools to maintain customer satisfaction and interest resulting in regular purchases. Successful loyalty programs can help convert satisfied customers to loyal customers which protects market shares over time. (Vinod, 2011).

With markets becoming increasingly competitive, firms are devoting considerable attention to the issue of loyal customers—specifically, how to attain them and maximize their value (e.g., Watson , Gborbani, Vartanian & Oregon 2015). Among the many studies that have tried to better understand customer loyalty, one of the most influential is the study of Rust *et al.* (2000) and their customer equity model.

Their follow-up article (i.e., Rust, Lemon, & Zeithaml, 2004) further solidifies the value of said model among academics. The Rust et al., (2000) model proposes that three customer equity

drivers (CEDs) are crucial components of loyalty intentions: value equity (VE), brand equity (BE), and relationship equity (RE).1 In turn, research has provided convincing support for the proposed impact of CEDs; for example: Ou, Verhoef & Wiesel (2017) generalize this positive link to 13 services industries.

Despite the positive support for a CEDs–loyalty link, studies have widely indicated that loyalty strategies are not equally effective across industries and firms (e.g. Rust *et al.,* 2004). Ou *et al.* (7) empirically show that there are substantial variations in the effects of CEDs across industries and firms. However, explanations for cross-industry and cross-firm variations remain scarce.

Multiple studies have investigated the cross-customer variation in the effectiveness of customer loyalty determinants (i.e., satisfaction, commitment, and trust). The trust level in the customers is based on several factors like staff efficiency as well as how goods or services are provided. Commitment is the consumer has an attachment and a loyalty to certain brands or trademarks and is in a mental state that does not change easily but becomes rooted. Finnaly, satisfaction is defined as a customer's feeling of happiness or disappointment concerning how the perceived goods meet his expectations.

They examine, for example, demographics, relationship length, switching costs, and consumer confidence as customer-level moderators to explain the variation (e.g., Mittal & Kama-kura 2001; Ou *et al.,* 2017). Studies have also investigated industry-level (e.g., Seiders, Voss, Grewal & Godfrey., 2005) or firm-level (i.e., Verhoef ,Neslin & Vroomen, 2007) moderators. Overall, however, few industry- and firm-level moderators have been systematically identified and empirically examined. This constitutes a research gap in the customer relationship management (CRM) literature.

Examining this gap is crucial because situational theory indicates that identifying the contexts relevant to individual reactions is as important as understanding individual cognitive processes; it also assumes that customers in different contexts employ different comparison standards in decision making (Eisenbeiss *et al.,* 2014; Longshore & Prager 1985). Thus, our main objective is to develop a framework of industry and firm characteristics as moderators and empirically examine the extent to which they explain cross-industry and cross-firm variations on the link between CEDs and loyalty intentions.

Despite the advances made in the research conducted in the area of marketing, in the sales area, advances are scarcer (Ahearne, 2017). One of the barriers that most sales researchers have encountered is access to quality business data, and the need to identify the issues that are truly impacting for the academic community and sales directors at the same time. For Nartissa (2012), most microenterprises are concentrated on direct management and production, not on research. They do not reach their full potential due to lack of knowledge about method, skills, and new trends in science and research.

Steenburgh and Ahearne (2018) suggest that the most successful sellers are those who constantly want to learn because customers want to know exactly the history of the products they buy. Therefore, it is necessary to create a mindset of demand, research and development in corporate salespeople. Steenburgh and Ahearne (2018) state that the time spent in each customer is longer for a seller selling a new product than a seller who sells regular goods.

The authors also suggest that companies should have a candidate selection system that includes an analysis of their skills and market knowledge. Another point is the training program that the company must provide to the seller of a new product, which should be based on the acquisition of new skills, as well as personal growth, as selling new products puts the sellers' confidence to the test. In other words, basically putting themselves on the line and putting the seller on the line, not just blaming the product when it does not fit the market at some point.

Finally, Steenburgh and Ahearne (2018) conclude that the companies questioned admit that investing in research and development is not sufficient, there must be a commitment to commercialization (e.g., effective seller selection, training and coaching processes), and not only in launching the innovative ideas and products. These cuts do not always happen for the right reasons and in the best way, leading to the loss of key customers and a decrease in sales team performance.

Khatibi, Thyagarajan & Seetharaman (2003) also conclude that most of the companies interviewed consider that e-commerce is a real competitive advantage and that competing companies that ignore this technological advance will eventually close down. Chhabra & Sharma (2014) state that the use of business intelligence enables the companies to better understand their business problems, as well as, the market in which they operate, identifying the opportunities through analysis of current operations, and which may lead to new forms of financial return or savings costs.

2.2.1. Loyatly Programs

Customer loyalty programmes are reward systems that firms put in place to encourage consumers to increase their consumption and tenure with the firm, as well as to make the firm attractive to new customers. The programmes do this by increasing perceived switching costs for the consumer and also by improving the attractiveness of the company's offerings (Wirtz, Mattila & Lwin, 2007). Considerable controversy surrounds the cost benefits of loyalty programmes. For example, Liu (2007) finds limited evidence of their effectiveness and states that the efficacy of customer loyalty programmes is not well established.

In contrast, Meyer-Waarden (2007) finds evidence that loyalty programmes increase consumption. Loyalty programs have existed for 30 years. American Airlines was the first to launch a loyalty program and called it "Frequent Flyer Program". Over the years, loyalty program have become prevalent (Vinod, 2011). Loyalty programs are a marketing strategy focused on offering benefits to achieve loyal customer retention. These programs are also called frequent purchase programs or reward programs because benefits depend on purchasing frequency (Gómez, Arranz & Cillán, 2006).

Companies record information by loyalty cards and possess instruments of dissemination and individualization of marketing mix (Meyer-Waarden, 2007). It enables managers to hold customers data and create customer databases. Collected data may be exploited for many reasons, like price discrimination, direct marketing, customer profiling and to promote products. However, it must be kept in mind that customers are afraid of losing their personal data and expect appropriate privacy protection therefore, customer loyalty is reliant on the customer's trust in the company. Creation of safe customer profiles can address this issue and will help attract privacy sensitive customers (Enzmann & Schneider, 2005).

The key components for developing affective loyalty are attitude, satisfaction, trust and commitment. Attitude is a lasting affection towards an object or an experience. Positive attitude is inevitable to build a true loyalty (Gómez *et al.,* 2006). Satisfaction is defined as an evaluation of the perceived discrepancy between prior expectation and the actual performance of the product. In the context of services, perceived satisfaction is related to confirmation or disconfirmation of expectations (Sahin Dölarslan, 2014). Trust is a key factor to make customers loyal.

Service or product suppliers should gain the trust of a customer and ensure them that the transmitted data is confidential. Commitment is when there is a rational and affective bond in the

relationship. Some authors admit that there is no customer loyalty without emotional aspects. Only repeated transactions is not enough for loyalty to last (Gómez *et al.,* 2006). Loyalty programs not only have financial benefits but provide customers with a feeling of intelligence and pride when they buy something for a better price or get something free (Hoffman & Lowitt, 2008), especially when something is expensive. When buyers feel like special customers, they start to identify more strongly with the company (Meyer-Waarden, 2007).

In terms of e-commerce, there are two different types of programs: rewarding system and virtual communities. Rewarding systems give members financial benefits (Enzmann & Schneider, 2005). The popular form is based on cash-back reward program where suppliers pay certain amount of money for every qualified purchase which is a fixed percentage of purchase amounts. This kind of rewarding program causes increase in sales in a short interval of time but customers don't necessarily repeat purchases (Altinkemer & Ozcelik, 2009). Virtual communities refer to social aspects, like an online discussion panel on product related problems (Enzmann & Schneider, 2005).

Altinkemer and Ozcelik (2009) describe new types of electronic loyalty programs. The alternative of solutions mentioned above is equity-based loyalty program where customers become fractional owners of the firms. Customers collect shares instead of discounts but the amount of equity is very small, usually around one percent of unit share. However, it is not possible to implement this program without IT applications and the Internet. In this model, customers are obligated to go back to the same firm after an initial purchase (Altinkemer & Ozcelik, 2009).

2.2.2. Customer loyalty and customer satisfaction with the effect of Brand consciousness on cognitive affective and conative brand loyalty

Customer satisfaction is an absolute necessity in achieving organizational goals. It is also a fundamental criterion for performance and is an indicator of the excellence of any organization (Gerson, 1993). When the organization achieves customer satisfaction, the customers promote the organization through word of mouth. This is reflected in the attraction of new customers as well as the times of purchase being repeated seeing as the customers are less inclined to go to competitors (Reichheld *et al.,* 1990). Satisfied customers are willing to pay attention to the organizations which satisfy their needs even if they end up paying more. They prefer to remain with the organization rather than face the risks of moving to other services at lower prices (Reichheld *et al.,* 1990).

Conversely, dissatisfied customers often express their feelings behaviorally (Zeelenberg & Pieters, 2004). Thus, negative and positive trends may affect the profitability of the company where customers move their attitudes and negative feelings to others through social media which can have an even bigger impact than that of the word of mouth positively or negatively affect the company. The results of the research indicated that one unsatisfied customer may pass his or her bad experience to nine other customers (Hoffman & Bateson, 2010). A bad word of mouth has a negative and harmful effect on the organization. It affects both the organization's reputation and profitability.

On the other hand, if the customer's problem is resolved in a satisfied manner, he will transfer his positive experience to five other persons who are likely to deal with the same company as a result of this positive word of mouth (Hoffman & Bateson, 2010). Oliver (1997) indicated that customer satisfaction determines the repurchase, which increases the future profits of the organization. When customers receive a high level of satisfaction, they repeat the purchase, resulting in an increase in customer loyalty and lower customer complaints as well as a good word of mouth.

In any business, building a strong brand is an important goal. This is an essential part of a business that promotes overall success as well as ensuring long-term growth and advancement in the marketplace (Al-Jubari, Hassan & Liñán*,* 2019). On that account, various approaches have been used to maintain the customers and decrease the proportion of customers changing brand. Nevertheless, it is common for the customers to switch from one brand to another in evolving markets. As such, there have been increased research to evaluate brand loyalty and

various business domains including purchase behaviour, purchase intention, marketing, and branding (Shamsudin, Shabi & Salem, 2018).

Back and Parks (2003), revealed that functional as well as symbolic concerns determine the importance of a brand. Evidence has shown that loyalty is resulting from an information process encompassing three levels namely cognitive loyalty, affective loyalty, and conative loyalty that are determined by consumers' perception in relation to a brand. In the recent years, there have been rapid advancements in the fast fashion industry. Hence, in order to adopt fast fashion model, numerous brands have improved their business model.

Consequently, this has urged the companies to follow the current fashion development in order to meet the consumers' demand at an affordable rate (Bhardwaj & Fairhurst, 2010). In general, the information on the consumers' behaviour in relation to fast fashion have been scant in which a recent study proposed that the empirical research should be conducted in order to understand the consumers' behaviour with respect to the fast fashion industry.

Also, it is essential to examine the information on the development of brand loyalty via various stages of loyalty for consumers in the fast fashion industry (Zhang, Lu, Fu & Cai 2014). Hence, this study is aimed to evaluate the link between brand consciousness (BC), brand love (BL) and the three stages of brand loyalty to establish in depth data on brand loyalty.

The consumers with mental process that is concentrated on choosing popular brands' goods are referred as brand conscious consumers (Wolter, Brach, Cronin Jr & Bonn., 2016). Generally, the brand conscious consumers are categorized according to their consumption behaviour as they possess various stages of brand consciousness (Zhan & He, 2012) . Furthermore, the brand conscious customers assess the product quality via the brand name that could influence the purchase decision process (Sasmita & Mohd Suki, 2015). As a result, brand conscious customers are highly biased due to their perceived linked knowledge towards a brand and the source of information (Ferreira & Coelho, 2015).

The attraction for consumers to become loyal towards a brand would be higher if there are many sources of information available for a brand. Therefore, it is anticipated that brand consciousness could certainly affect the cognitive brand loyalty (COBL). It should be noted that the brand conscious consumers are fixed to a specific brand as they think that purchasing the brand mirror their status symbols and prestige that lead to affective stage of brand loyalty (ABL) (Jayasuriya

Saeed, Jun, Nubuor & Priyankara 2018). Evidence has shown that brand consciousness positively influences the consumers 'attitude than imposing negative impact due to the exceptional emotional bond with a brand and this lulead to conative stage of brand loyalty (COBL) (Zhang *et al.*, 2014).

Brand Love is referred to positive emotions that make consumers attach to a brand (Leventhal, Wallace, Buil, & Chernatony, 2014). Firm consumer-brand association promotes establishment of viable brands and enhance brand loyalty (Sasmita & Mohd Suki, 2015). Salem & Salem (2019), demonstrated that understanding the mechanism of customers attachment towards a brand could retain the emotional relationship between customers and their brand. Consequently, this results in better establishment of consumer royalty for a certain brand. Nonetheless, the association between brand love and various stages of loyalty has been scant.

Previous studies have defined customer brand loyalty as customers repurchase intentions concerning only a specific brand as well as their guarantees to buy the brand (Nyadzayo & Khajehzadeh, 2016). Meanwhile, behavioural loyalty specifies repurchase frequency of the goods (Oliver, 1997). Behavioural loyalty is restricted to evaluate the real magnitude of loyalty for a specific brand (Nyadzayo & Khajehzadeh, 2016). Meanwhile, attitudinal loyalty describes the attitude of customers concerning a particular brand. Previous research has demonstrated that attitudinal loyalty comprised of obligation and desire to buy the brand (Yoshida, Heere & Gordon 2015).

The brand loyalty comprises three phases in which every stage depends on completing the preceding phase (Kang, Alejandro, & Groza, 2015). The first stage refers to cognitive loyalty (CBL) where consumers' perceptions are moulded by former evidence relating to the brand that they possess and the stage of their anticipation that they must attain. An affective loyalty (ABL) is the second stage in which customers demonstrate high emotional attachment with the brand. Consequently, this leads to positive attitude and worthy experience that results in satisfaction (Lee & Workman, 2015). As such, maintaining customers satisfaction promotes conative loyalty (COBL).

According to Wallace's *et al.* (2014), individuals that would like to purchase a product, specifically the extraordinary involvement products, frequently search for external or internal info that could increase their understanding of the brand. However, excessive brand consciousness might not influence their contentment (affective loyalty) or in fact their commitment towards

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buying a particular item brand (conative loyalty). Nevertheless, the current research demonstrates that brand consciousness ultimately impact on cognitive, affective and conative brand loyalty through brand love.

The strategy of fast fashion brands should enhance the individual consciousness towards a brand, which will increase the emotional attachment with a brand. As a result of building an emotional relationship with their customers, companies will develop their customers' loyalty to their brand in every stage of brand loyalty. On the other hand, cognitive brand loyalty reflected a superior effect on affective brand loyalty that resulted in conative brand loyalty. Consequently, this forms satisfaction as well as encourage them to repurchase a product regularly (Yuksel, Yuksel & Bilim, 2010). Also, a customer satisfaction could form if the information regarding the brand meet the customers' expectation over the alternative brands from the competitors.

This scenario is known as an affective brand loyalty that could cause the customers to choose or fix to buy the product (conative brand loyalty). The theoretical input of the current was to form a conceptual model for establishing the brand loyalty concerning fast fashion goods. In terms of practical input, the current research has introduced novel parameters for the industry segmentation by emphasizing the advantages of forming approaches that would concentrate on customers who are brand conscious. Importantly, it is crucial for the managers to understand the various stages of consumers' loyalty, which reveals their assurance towards a business (Fournier & Yao, 1997). As such, this would enhance their capability to react accordingly using suggested advertising approach. In the context of fast fashion industry, the brand love is regarded as an essential component of the brand loyalty building.

2.3. Enterpreneurship

The term "entrepreneur" is a French word derived from the verb "entreprendre" which means to do or to undertake. First appear in the literature in 1263. Internationalization is occurring on several levels in the globalizing world of our times. There are internationalizing enterprises, but also a vast flow of individuals migrating to other countries. In learning to master institutional and cultural differences between the country of origin (COO) and the country of residence (COR), opportunities for venture creation may be identified and developed by migrants.

This form of entrepreneurship is usually neglected in traditional internationalization research (Drori, Honig & Wright, 2009), but transnational entrepreneurship addresses this topic, that is, "entrepreneurial activities that are carried out in a cross-national context, and initiated by actors who are embedded in at least two different social and economic arenas" (Drori *et al.,* 2009). Although entrepreneurs are constantly scouting for opportunities in their environments (Hilmersson & Papaioannou 2015), the context has rarely been studied in connection with opportunity recognition (Phillips, Lee, Ghobadian, O'Regan & James, 2015). Since the institutional context constitutes a significant factor in the progress of immigrant entrepreneurship, it should be taken into account (Aliaga-Isla & Rialp 2013).

Most studies have focused on migrants moving from less-developed economies to developed economies (Aliaga-Isla & Rialp 2013). The case study reported on in this paper therefore adheres to the call for qualitative studies addressing other contexts (Aliaga-Isla & Rialp 2013) by focusing on migrants from two developed Nordic economies (Sweden and Finland) now living in a developed economy in Asia (the Hong Kong Special Administrative Region (HKSAR). Entrepreneurship may be defined as "the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic (psychological), social risks and receiving the resulting rewards of monetary and personal satisfaction and independence" (Nielsen, Peters & Hisrich, 1985).

Two types of satisfaction identified are evaluative satisfaction which occurs as a result of the disconfirmation of expectations and the emotion-laden satisfaction, based on non-rational processes .These variations of satisfaction are both generated and maintained through the kind of relationship existing between the business and the customer, which is primarily driven by the activities of the business owner through the business marketing activities.

This is known as relationship marketing (Cronin, Brady & Hult, 2000). 'Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments' Cronin *et al.* (2000).

Ganesh, Arnold & Reynolds (2000) found two factors in their loyalty items; active loyalty, which is depicted by the use of the word-of-mouth and intention to use product or patronize the firm, and passive loyalty; displayed by doggedly refusing to switch from product or organization even under less positive conditions (Ganesh *et al.,* 2000).

Other authors have considered loyalty as a process rather than an outcome. Oliver (1997), for example, identified four stages or variations of loyalty namely cognitive, affective, conative and action loyalty. Oliver´s perspective proposes that loyal customers go through four stages. First is the cognitive stage or belief stage. A customer may be attracted to the product for first time purchase consideration through sales promotion or the high quality of the products offered by the firm (Oliver, 1997).

To become loyal, the customer must consistently confirm that his or her expectations about the goods or services are met. At the affective stage consumers are repeatedly satisfied with their purchasing decisions and thus develop an attitudinal penchant for repeat purchase. Third is the conative stage when consumers have a behavioral intention and are deeply committed to buying. The intention leads to the fourth stage of action. Customers have the desire to overcome obstacles, e.g., attraction of competitors or price increase by a firm, to achieve the actual purchase behavior (Oliver, 1997).

In our own graduate research courses in entrepreneurship, we discuss and define the entrepreneur using several different analysis grids, including that devised by Howorth, Tempest & Coupland (1979), based on two vectors: subjectivist-objectivist and radical-regulation. The grid can be used to classify the humanities literature into four categories: Functionalist: objective view of reality and a regulatory view of society; Interpretativist: subjective view of reality and a regulatory view of society; Radical structuralist: objective view of reality and focus on radical change; Radical humanist: subjective view of reality and focus on radical change (Howorth *et al.*, 2005).

2.3.1. Corporate Entrepreneurship

The definition provided by Chua, Chrisman & Sharma (1999) describes corporate entrepreneurship as follows: the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization, or instigate a renovation or an innovation within that organization. The exploitation can be described as refining and extending existing competences; it builds on current insights and has predictable returns. The exploration is an experimentation with new alternatives where the returns are very uncertain.

The fundamental challenge facing corporate entrepreneurship, as describes by Dess, Ireland, Zahra, Floyd, Janney & Lane (2003), is "managing the conflict between the new and the old and overcoming the inevitable tensions that such conflict produces for management". The common elements of entrepreneurial behavior in existing firms have to do with individuals who may discover and pursue opportunities in a corporate environment that is focused mainly on exploiting the existing resource combinations. Thus, realizing new combinations of resources that lead to innovative products, processes or new market entries on the one hand require individuals with a particular entrepreneurial behavior and on the other hand an organizational environment which not only tolerates but even supports these explorative activities.

Entrepreneurship is not restricted to a particular unit, such as new business development, but it is scattered over many parts of the organization. Various organizational forms have been recognized to fit the notion of focused corporate entrepreneurship. In the ambidextrous organization (Tushman & O'Reilly, 1996) small and autonomous units are responsible for innovation, while they are part of a large company and therefore benefit from economies of scale and scope.

Corporate venturing is the key example of focused corporate entrepreneurship and perceived as a potentially fruitful way to mix exploration and exploitation. Corporate ventures provide an environment more conducive to initiatives that are risky, uncertain and new in comparison with the core business. These ventures are separate units which on the one hand are designed to be consistent with the needs of new, high-risk and potentially high-growth activities, but which on the other hand try to benefit from the resources and knowledge of the large corporation.

Corporate venture capital programs are designed to add value to small start-ups, which are expected to contribute to the growth potential of the large established parent company. Established

companies can make minority equity investments in promising start-ups though corporate venture capital programs. This has the advantage that new entrepreneurship is almost completely insulated from negative bureaucratic decision-malting or political fights over budgets.

European companies as Nokia, Deutsche Telecom, and Siemens have also benefited from investments in corporate venture funds. There are many failures as well, however, and some studies found that corporate venture programs have difficulties in reaching their objectives (Gompers & Lerner, 1998). In the former the locus of entrepreneurship lies within the boundaries of the firm, while in the latter it lies outside the firm. Recent discussions focus on the potential of corporate venture capital as a particular form of external venturing to satisfy exploration efforts and balance them with the needs for exploitation.

Generally, three levels of management are distinguished, top management, middle management, and operating or front-line management (Floyd & Lane, 2000). For each of these three levels a different set of roles has been discussed. Each managerial level may be associated with a particular behavior that is expected from the managers. In the traditional top down approach, it is the upper echelon that acts in an entrepreneurial fashion, leaving the actual implementation of the strategy to lower-level management. Corporate entrepreneurship is closely associated with strategy making where bottom-up processes are vital (Bartlett & Ghoshal, 1993).

In this view, operating management has an important role as the initiator of new ventures, being located close to technology and markets and therefore possessing the most up to date knowledge and insights regarding opportunities. The concepts of perceived support and self-efficacy are of interest because they provide a connection between the micro and macro perspectives on entrepreneurial initiatives. The macro perspective focuses on the firm as the organizational context. The organizational form and culture are central to understanding the entrepreneurial initiatives in those firms. The micro view takes the individual as the primary unit of analysis and tries to explain entrepreneurial behavior within organizations on the basis of personal traits.

Although the original personal traits approach was not successful in explaining variations in entrepreneurial initiatives (Boyd & Vozikis, 1994), a modified approach that takes the effects of self-efficacy into account appeared to be promising with regard to improving our understanding of enterprising individuals (Shook, Priem & McGee., 2003). Mair has developed a model that aims at providing micro-foundations of entrepreneurial behavior in the corporate context. The model reconciles the micro and macro perspectives by using concepts such as perceived

support and self-efficacy, which create an explicit connection between the potential intrapreneur and his/her perceptions and the organizational context.

The way firms deal with entrepreneurial failures appears to be a challenging avenue for future study for two reasons. First, Kelley *et al.*, show that tolerance for failures is ail important aspect of ail entrepreneurial culture. In most organizations failure prevention is a dominant tendency, because of an anti-failure bias (McGrath, 1999). There is a danger that this may lead to risk averse behavior and curtail the search for new opportunities. As a result, entrepreneurial projects with relatively uncertain outcomes are not initiated and potential intrapreneurs may leave the firm.

To overcome this bias, management can play an important role by creating favorable conditions, such as commitment to an entrepreneurial strategy, support for internal ventures and the creation of favorable incentive mechanisms (Kelley *et al.*, this volume; Bartlett & Ghoshal, 1993).The second reason to pay closer attention to entrepreneurial failure has to do with failure management rather than the consequences of failure prevention. The challenge is to learn from failures.

Firms may perceive entrepreneurial projects or internal ventures as competence-building exploration efforts involving some degree of trial-and-error learning. Failures are unavoidably associated with the learning process and the question is how firms can use their failures in a constructive manner and thus benefit from them (McGrath, 1999). Existing insights indicate there are a number of lessons to be learned. In order to interpret the magnitude and implications of an entrepreneurial failure it is crucial to be able to evaluate the development of a venture with its goals and underlying assumptions. Modest failures are relatively easy to interpret and therefore to learn from (Sitkin & Pablo, 1992).

One of the advantages of CVC programs is the separation of start-up ventures from their parent companies. But although the initiatives are not inhibited by rules, routines and bureaucracy of the parent, there is a downside to this advantage, in that in order to be able to grow and play a valid past in the parent company's strategic interests, the independent startup has to be in some way connected to that parent. The corporate venture capitalists, the people in charge of the CVC programs, play ail important role in creating and developing these connections (Henderson and Leleux). The requirements facing CVC unit managers in terms of human and social capital to, first, support and coach portfolio start-ups and secondly, to create and develop connections to

the parent are substantial. To date, very little research has been conducted with regard to the role and tasks of CVC unit managers.

Chapter III – The impact of Artificial Intelligence on Customer Loyalty and Enterpreneurship

2.1. The influence of Artificial Intelligence on Customer Loyalty

Retail is evolving at an accelerated rate due to changes made possible by technologies and evolving consumer behaviors. Integrating channels and the power of big data are not distinctive factors anymore but rather are prerequisites of competitiveness. Where the field goes will depend on even newer emerging forces

Research into the Internet of things should clarify how it may influence shopping behavior, as well as the role of frontline employees (Rafaeli, Altman, Gremler, Huang, Grewal, Iyer & Ruyter, 2017). Smart homes are being designed with a host of smart appliances (e.g., refrigerators) that can reorder products as stocks get low. Similarly, smart cars convey relevant information to service departments and may schedule future service appointments. Thus, research needs to explore whether the Internet of things will increase consumers' engagement with retailers, service providers, and brands or if it will reduce consumer engagement, as machines take over all the "talking" to other machines (i.e., the start of machine-to-machine commerce).

Virtual and augmented reality has offered vast promise for a long time; those promises are just beginning to be realized. The new forms of technology-based reality and applications enhance sensory perceptions (Poncin & Mimoun 2014). Apps using augmented reality also are advancing the reality, such as apps for car dealers that allow consumers to view how different components look on a car, or games such as Pokémon GO that combine a hunt for virtual creatures (Pokémon) with the real-world locations of the players. A mobile device's GPS capability makes this possible.

Apps that rely on artificial intelligence (AI) also are on the rise in a variety of contexts, from Siri on the Apple phone, to Cortana on Microsoft, to Alexa on Amazon's Echo, to query-based response AI systems for retailers (e.g., Macy's On Call). These AI-based responses can have tremendous positive impact on customers as they shop, whether physically or online. They can gather information about where products are physically located within a store, answer questions about the functionalities of a product, and make suggestions about what other products might work well in combination with the purchased item. The answers also may be tailored, according to the consumer's knowledge (e.g., accessing historical customer data sets and using predictive

analytics to recommend relevant information or products). The consequences could include more informed and engaged customers, but they also might mean that service employees' jobs would need to be retooled to enable them to provide information at an even higher level than available in an AI application.

Building on AI-based technology, many companies are testing driverless vehicles, and various manufacturers and retailers are taking advantage of advances in the technology for robotics and drones (van Doorn, Onrust & Verhoef, 2017). Major manufacturers and retailers already use robots extensively in their distribution centers. Amazon also has publicly discussed its plans for drone delivery, to augment its existing delivery options. Such applications suggest a host of research possibilities, such that studies should pursue a better understanding of the short- and long-term benefits and consequences of different delivery methods.

In conclusion, newer forces will influence how shoppers select channels, choose products and services, and make purchases. The worlds of online and offline are converging. Knowing what is different and what is similar in these two worlds, as well as how new technologies are going to impact both, is key for the future of retailing. Innovations are likely to help customers make good decisions, feel less time pressure, or even increase their confidence and satisfaction with their decisions. Retailers in turn need to embrace these new and emerging technologies to make their customers even more engaged, while also making their lives simpler. Finding ways to do so remains an important area of inquiry, worthy of continued exploration.

2.2. The influence of Artificial Inteligence on Enterpreneurship

Citizens' capabilities are among the factors measuring smart economy and smart people, such as entrepreneurship, innovative spirit, qualification, affinity to lifelong learning, flexibility or creativity. The model uses indicators relevant to learning, innovation and entrepreneurship, such as: employment rate in knowledge intensive sectors, patent applications per inhabitant, self employment rate, new businesses registration, and participation in lifelong learning. One can note that the Smart Economy and Smart People characteristics demand an innovative education system to produce smart, adaptable and continuing learning entrepreneurs and citizens, while Entrepreneurship and Education represent real pillars of future city smartness.

In 2010, after establishing „Smart Cities" as a EU priority, the „smart" label was also applied to regional policies, in the context of the economic crisis in Europe and the need to stimulate the best from each typology of region. Thus, a new term has been coined, Smart Specialization Strategies (S3) (Skjærseth & Wettestad, 2010). S3 is a novel approach to regional economic and social development promoted by the EU, stating that "the discovery of well-defined domains for specialization in a region or country, e.g. of research and innovation (R&I) areas in which it could excel and have comparative advantages, may trigger economic advancement in that region or country".

Chapter IV – Theoretical approach

In the following literature review made in chapter II and III in the present thesis, exist a lot of points of views presented by different authors about artificial intelligence, customer loyalty and entrepreneurship, but mainly about the impact AI can have on both themes. As result of this search, some research questions come up and they will be discussed in detail in this chapter to help and clarify the discussion about the impact that AI can have on Customer Loyalty and on Entrepreneurship.

At first glance, these three themes may seem a little different from each other, however they can really go together and make huge difference when talking about how a business can be successful or can be a failure. Artificial Intelligence, according to Lustosa (2004), first appeared in 1956. The idea was the machines have the same human intelligence capabilities and could reproduce intelligent behavior. The term AI is related to the development of expert systems to solve the problem in specific areas, such as medicine, which has benefit greatly from AI developments (Mendes, 1997).

Paiva and Prevedello (2017) consider that these technological advances are mainly due to three factors: the abundance of existing data, the development of ANN, and reduced hardware cost. Customers appear to hold AI to a higher standard than is normatively appropriate (Gray, 2017), as exemplified by the case of driverless cars. Customers should adopt AI if its use leads to significantly fewer accidents; instead, customers impose higher standards and seek zero accidents from AI. Here we have an example on the automobile industry that is having a great impact.

However, it is important to understand the roots of this excessive caution. A preliminary hypothesis suggests that customers trust AI less, and so hold AI to a higher standard, because they believe that AI cannot "feel" (Gray 2017). Task characteristics also influence AI adoption. To the extent a task appears subjective, involving intuition or affect, customers likely are even less comfortable with AI (Castelo, 2019). Research confirms that customers are less willing to use AI for tasks involving subjectivity, intuition, and affect, because they perceive AI as lacking the affective capability or empathy needed to perform such tasks (Castelo *et al.,* 2018). We read that it can have a positive impact on other industry, however some AI adoption depends on type of people that can trust blindly or not in AI.

Having these arguments of (Castelo *et al.,* 2018) into consideration, I came up with the first research question: **Q1 – Is the AI having a positive impact on all type of industries?**

Customer characteristics may also impact AI adoption. We build from two points: (1) when outcomes are consequential, this increases perceptions of risk (Bettman 1973), and (2) women perceive more risk in general (Gustafsod, 1998) and take on less risk (Byrnes *et al.,* 1999). Hence, early work has found that women (vs. men) are less likely to adopt AI, especially when outcomes are consequential (Castelo & Ward 2016). Moving beyond demographics, other factors also impact the extent of AI adoption, e.g., to the extent a task is salient to a customer's identity, the customer may be less likely to adopt AI (Castelo, 2019).

To elaborate, if a certain consumption activity is central to a customer's identity, then the customer likes to take credit for consumption outcomes (Leung *et al.,* 2018). Some customers perceive that using AI for these consumption activities is tantamount to cheating, and this hinders the attribution of credit post-consumption. Therefore, if an activity is central to a customer's identity, then the customer may be less likely to adopt AI (for this activity).

Having in mind what (Castelo, 2019) said about the demographics factors, I reached to the second question: **Q2 – Does the area/country that you live in, will be an important issue to take AI or not? Can AI substitute 100% the human job?**

Having now a quick brief on the other theme, customer loyalty, has been said that is defined: "a measure of the degree of re-purchase of a particular trade mark by the customer". It is also known as: "a measure of the customer´s willingness to engage in reciprocal utilitarian participation with the company´s activities in regard to its products and services" (Kotler & Scheff, 1997). According to Tabaku and Zerellari (2015), there are two approaches on customer loyalty: behavioral and attitudinal.

Despite the advances made in the research conducted in the area of marketing, in the sales area, advances are scarcer (Ahearne, 2017). One of the barriers that most sales researchers have encountered is access to quality business data, and the need to identify the issues that are truly impacting for the academic community and sales directors at the same time.For Nartissa (2012), most microenterprises are concentrated on direct management and production, not on research. They do not reach their full potential due to lack of knowledge about method, skills, and new trends in science and research.

Steenburgh and Ahearne (2018) suggest that the most successful sellers are those who constantly want to learn because customers want to know exactly the history of the products they buy. Therefore, it is necessary to create a mindset of demand, research and development in corporate salespeople. Steenburgh and Ahearne (2018) state that the time spent in each customer is longer for a seller selling a new product than a seller who sells regular goods.

Taking into consideration the arguments of Steenburgh and Ahearne (2018) I reached the third question: **Q3 – Does get a loyal customer depends more on the product or on the person is selling it?**

Khatibi *et al.* (2003) also conclude that most of the companies interviewed consider that e-commerce is a real competitive advantage and that competing companies that ignore this technological advance will eventually close. Sharma *et al.* (2014) state that the use of business intelligence enables the companies to better understand their business problems, as well as the market in which they operate, identifying the opportunities through analysis of current operations, and which may lead to new forms of financial return or savings costs.

In terms of e-commerce, there are two different types of programs: rewarding system and virtual communities. Rewarding systems give members financial benefits (Enzmann & Schneider, 2005). The popular form is based on cash-back reward program where suppliers pay certain amount of money for every qualified purchase which is a fixed percentage of purchase amounts. This kind of rewarding program causes increase in sales in a short interval of time, but customers don't necessarily repeat purchases (Altinkemer & Ozcelik, 2009). Virtual communities refer to social aspects, like an online discussion panel on product related problems (Enzmann & Schneider, 2005).

Merging both points of views of Khatibi *et al.* (2003) and Sharma *et al.* (2014) I reached the fourth question: **Q4 – What are the best ways to get loyal customers when you have a business running online (e-commerce)?**

Customer loyalty programmes are reward systems that firms put in place to encourage consumers to increase their consumption and tenure with the firm, as well as to make the firm attractive to new customers. The programmes do this by increasing perceived switching costs for the consumer and also by improving the attractiveness of the company's offerings (Wirtz *et al.,* 2007). Considerable controversy surrounds the cost benefits of loyalty programmes. For

example, Liu (2007) finds limited evidence of their effectiveness and states that the efficacy of customer loyalty programmes is not well established.

In contrast, Meyer-Waarden (2007) finds evidence that loyalty programmes increase consumption. Loyalty programs have existed for 30 years. American Airlines was the first to launch a loyalty program and called it "Frequent Flyer Program" Over the years, loyalty program have become prevalent (Vinod, 2011). Loyalty programs are a marketing strategy focused on offering benefits to achieve loyal customer retention. These programs are also called frequent purchase programs or reward programs because benefits depend on purchasing frequency (Gómez *et al.,* 2006).

Having some doubts about what Liu (2007) said I came up with the fifth question: **Q5 – Can a company survive and be successful without loyalty programs?**

Customer satisfaction is an absolute necessity in achieving organizational goals. It is also a fundamental criterion for performance and is an indicator of the excellence of any organization (Gerson, 1993). When the organization achieves customer satisfaction, the customers promote the organization through word of mouth. This is reflected in the attraction of new customers as well as the times of purchase being repeated seeing as the customers are less inclined to go to competitors (Reichheld *et al.,* 1990). Satisfied customers are willing to pay attention to the organizations which satisfy their needs even if they end up paying more. They prefer to remain with the organization rather than face the risks of moving to other services at lower prices (Reichheld *et al.*, 1990).

Conversely, dissatisfied customers often express their feelings behaviorally (Zeelenberg & Pieters, 2004). Thus, negative and positive trends may affect the profitability of the company where customers move their attitudes and negative feelings to others through social media which can have an even bigger impact than that of the word of mouth positively or negatively affect the company. The results of the research indicated that one unsatisfied customer may pass his or her bad experience to nine other customers (Hoffman & Bateson, 2010). A bad word of mouth has a negative and harmful effect on the organization. It affects both the organization's reputation and profitability.

On the other hand, if the customer's problem is resolved in a satisfied manner, he will transfer his positive experience to five other persons who are likely to deal with the same company as a result of this positive word of mouth (Hoffman & Bateson, 2010). Oliver (1997) indicated

that customer satisfaction determines the repurchase, which increases the future profits of the organization. When customers receive a high level of satisfaction, they repeat the purchase, resulting in an increase in customer loyalty and lower customer complaints as well as a good word of mouth.

Taking into consideration what (Reichheld *et al.,* 1990) says about satisfied customers it came up my six question: **Q6 – When can we consider a customer, a loyal one? And can we weight the importance of a customer for a business?**

The term "entrepreneur" is a French word derived from the verb "entreprendre" which means to do or to undertake. First appear in the literature in 1263. Internationalization is occurring on several levels in the globalizing world of our times. There are internationalizing enterprises, but also a vast flow of individuals migrating to other countries. In learning to master institutional and cultural differences between the country of origin (COO) and the country of residence (COR), opportunities for venture creation may be identified and developed by migrants.

This form of entrepreneurship is usually neglected in traditional internationalization research (Drori *et al.,* 2009), but transnational entrepreneurship addresses this topic, that is, "entrepreneurial activities that are carried out in a cross-national context, and initiated by actors who are embedded in at least two different social and economic arenas" (Drori *et al.,* 2009). Although entrepreneurs are constantly scouting for opportunities in their environments (Hilmersson and Papaioannou 2015), the context has rarely been studied in connection with opportunity recognition (Phillips *et al.*, 2015). Since the institutional context constitutes a significant factor in the progress of immigrant entrepreneurship, it should be taken into account (Aliaga-Isla & Rialp 2013).

As we live on a modern world and information is popping up at us at everytime, these lead us to our seven question also because of the arguments presented by (Hilmersson & Papaioannou, 2015) and (Phillips *et al.*, 2015): **Q7 – Is the willing to become an entrepreneur borns with you, or it come up due to the circumstances you are surrounded by?**

Most studies have focused on migrants moving from less-developed economies to developed economies (Aliaga-Isla & Rialp, 2013). The case study reported on in this paper therefore adheres to the call for qualitative studies addressing other contexts (Aliaga-Isla & Rialp, 2013) by focusing on migrants from two developed Nordic economies (Sweden & Finland) now living in a developed economy in Asia (the Hong Kong Special Administrative Region (HKSAR).

Entrepreneurship may be defined as "the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic (psychological), social risks and receiving the resulting rewards of monetary and personal satisfaction and independence" (Nielsen *et al.*, 1985).

Taking into consideration the arguments defended by (Aliaga- Isla & Rialp, 2013), I came up with the eight question of my theoretical approach: **Q8 - How do you define the entrepreneur profile for you and seen by others?**

Chapter V - Metodology

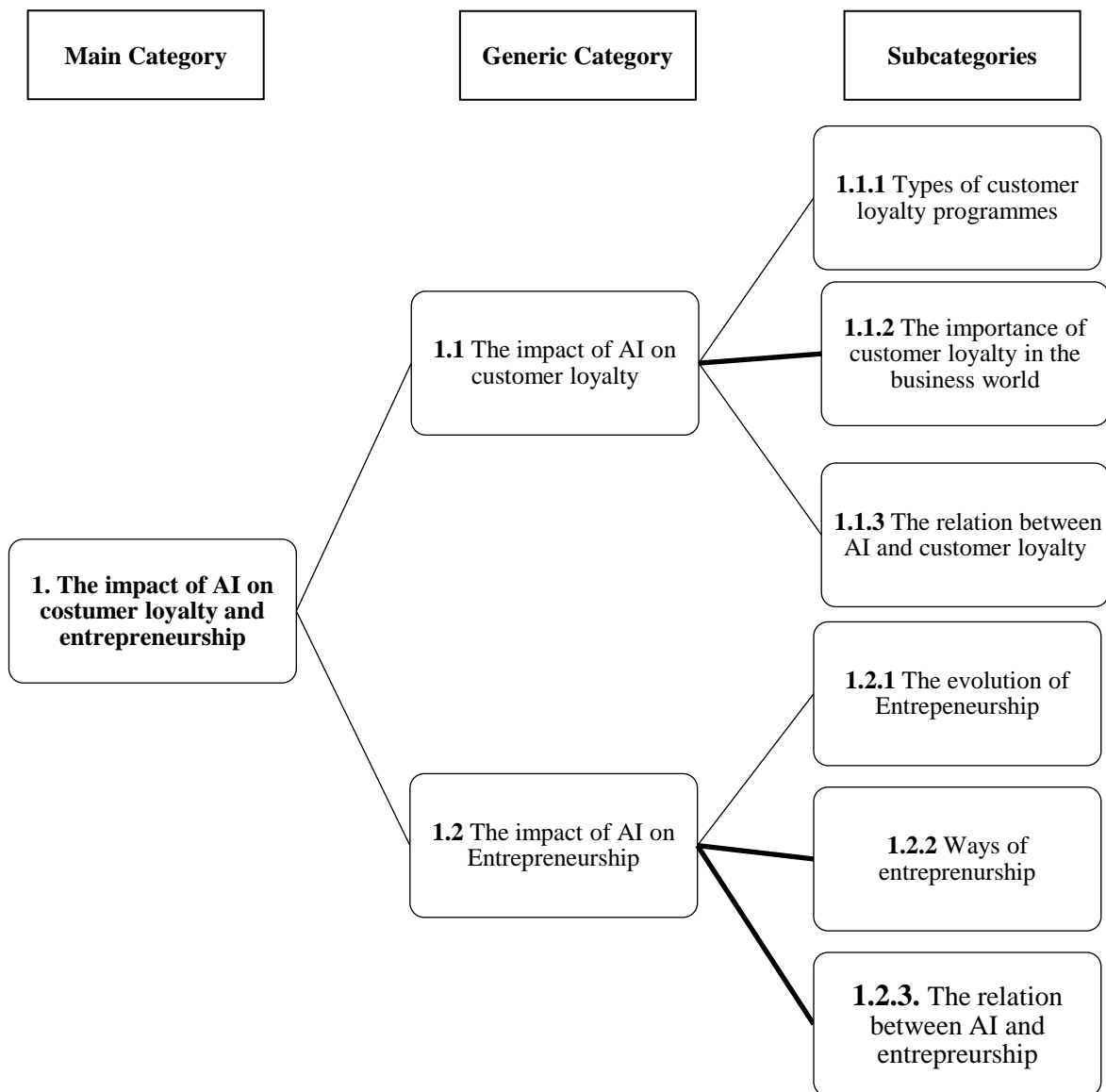**5.1. Investigation Model and Sample Description**

The research methodology is a discipline derived from logic and its object is the study of the scientific method (Tarski, 1977). It can thus be deduced that the scientific method or process is a set of practices used and ratified by the scientific community as valid for the exposition and confirmation of a given theory. In this sense, and considering the research classification criterion proposed by Vergara (2006) and Vilelas (2009), there are two ways in which we can classify the methodology used in the design of research documents: as to the ends and as to the means. On the one hand, the ends refer us to applied and exploratory research, while the means are linked to both field study and bibliographic research.

In this specific case, it was made eleven interviews to people that are working or worked on one of this three fields: artificial intelligence, customer loyalty and entrepreneurship, never forgetting that some interviewees work or worked on more than one field. It is important to say that the interviews made had a sample construction goal, since they were carefully selected, taking into consideration the subject. Even tough, the answers I got are quite good, the main conclusions must be considered that the sample was not that big. Being said that, this factor can be named as the main limitation of my work, even it was not my major goal.

I also created an online survey through google forms and I leave in online for answering for two weeks. The requires to be a valid answer was someone that is already working and have a minimum notion about at least one of the three topics.

In terms of the qualitative analysis technique used to interpret the data reproduced in the interviews, this translated into a content analysis, trying to relate the semantic structures (signifiers) with the sociological structures (meanings) of the statements, in order to articulate the surface of the statements. texts with the factors that determine their characteristics [(psychosocial variables, cultural context and context, processes and reproduction of the message) - (Duriau, Reger & Pfarrer., 2007)]. Figure 3 shows the categorization and codification of the interview corpus that gave rise to the qualitative analysis.

Graphic 1. Categorization and coding of the interview corpus for qualitative analysis

Main Category	Generic Category	Subcategories

1. The impact of AI on costumer loyalty and entrepreneurship

1.1 The impact of AI on customer loyalty

1.1.1 Types of customer loyalty programmes

1.1.2 The importance of customer loyalty in the business world

1.1.3 The relation between AI and customer loyalty

1.2 The impact of AI on Entrepreneurship

1.2.1 The evolution of Entrepeneurship

1.2.2 Ways of entreprenurship

1.2.3. The relation between AI and entrepreurship

Source: Author

From the audio reproductions, it was made a three cronologic analysis from Bardin (1977), in the first stage, the sistemization and organization of the ideas said by the interviewees, secondly, it was exploited every material gather, so in the end all the information could be treat and the respective results´s interpretation.

Having into account the thesis´s objectives, the interview was the method chosen because it is the method most adequated to gather the information needed. Given the objectives of this thesis, the interview was considered the most appropriate method of collecting primary information,

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because, although the analyzes may be implicit in a certain degree of subjectivity associated with the answers given, it is a method that allows them to be the social actors themselves to provide data on the phenomenon under study (Carmo & Ferreira, 1998).

It should also be noted that the semi-structured interview technique used was developed based on a range of questions, although implied in an adaptable and non-rigid character, almost always allowing the conversation to proceed in a fluid way (Carmo & Ferreira, 1998). That is, although the questions were previously prepared, most of them were generated as the interview took place, allowing the interviewer and the interviewees the flexibility to deepen or confirm certain data, whenever it was necessary. It was, therefore, a planned interview, but with a spontaneous, flexible and informal character, which made it possible to collect many important data generating quantitative and qualitative information (Werr & Styhre, 2002).

The present dissertation was made in four stages: first step, a deep reasearch on the literature review; second step gather all the information from na online survey (answered by 103 people); third step was the interviews made to eleven people highly qualified.

With regard to external validity, that is, the possibility to generalize the results found to other contexts or samples, this study reinforced some of the existing theory regarding the strategic formulation of companies, allowing contextual analyzes to be carried out in the future through the comparison of results between different countries in this field of research. Figure 4 illustrates the research model used in this study.

Graphic 2. Research and Model Design
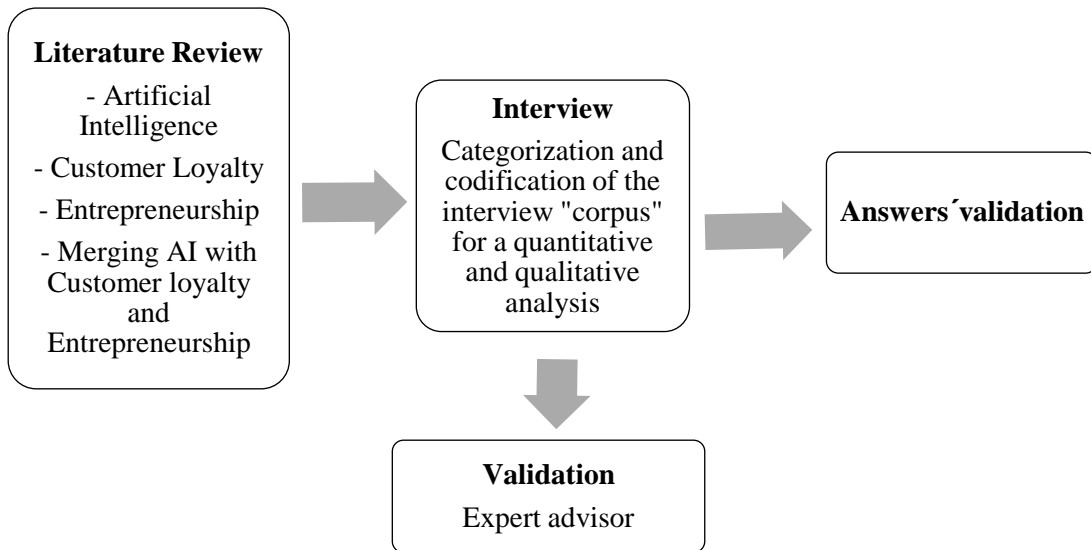
Source: Author

In table 2, on the other hand, it is possible to analize the relation between the study objectives, research question made on the theoretical approach and it respective connection to the literature review made previously.

Table 2. Analysis Model that put together the objectives studied with the research question that arise from the literature review

Objectives	Research Questions	Literature Review
OBJ 1 Analyze the impact of AI in the different economic sectors in order to assess its degree of acceptance and adaptation	(Q1). Is the AI had a positive impact on all type of industries?	Mendes (1997). Librantz *et al.* (2017), Gray (2017), Castelo *et al.* (2018), Castelo (2019), Castelo & Ward (2016), Bettman (1973), Gustafsod (1998), Byrnes *et al.* (1999),
	(Q2). Does the area/country that you live in, will be an important issue to take AI or not? Can AI substitute 100% successfully?	Castelo (2019), Castelo & Ward (2016), Bettman (1973), Gustafsod (1998), Byrnes *et al.* (1999), Leung *et al.* (2018)
OBJ 2 Analyze the impact of customer loyalty programs and degree of customer loyalty with the brand based on the support of AI	(Q3). Does getting a loyal customer depends more on the product or on who is selling it?	Ahearne (2017), Nartissa (2012), Steenburgh & Ahearne (2018)
	(Q4). What are the best ways to get loyal customers when you have a business running online (e-commerce)?	Khatibi *et al.* (2003), Sharma *et al.* (2014), Enzmann & Schreider (2005), Altinkemer & Ozcelik (2009)
	(Q5). Can a company survive and be successful without loyalty programs?	Wirtz *et al.* (2007), Liu (2007), Meyer – Waarden (2007), Vinod (2011), Gómez *et al.* (2006)
	(Q6). When can we consider a customer, a loyal one? And how can we weight the importance of a customer for a business?	Gerson (1993), Reichheld *et al.* (1990), Hoffman & Bateson (2010), Zeelenberg & Pieters (2004), Oliver (1997), Al-Jubari *et al.* (2019)
OBJ 3 Assess the leverage needed to boost entrepreneurship in the market and within the company with the support of AI	(Q7). Is the will to become an entrepreneur borns with you, or it come up due to the circumstances you are surrounded by?	Hilmersson & Papaioannou (2015), Phillips *et al.* (2015), Aliagan-Isla & Rialp (2013)
	(Q8). How do you define the entrepreneur profile for you and seen by others?	McGrath (1999), Glioshal (1993), Sitkin & Pablo (1992)

Source: Author

Chapter VI – Results´s presentation and discussion

In this chapter I will present the results I got from the different sources I have. I will approach each research question with the following structure: first I will present the answers I got from the online survey, second I will present the results I got from the eleven interviews I made to people that are working or worked in one of the three fields of my thesis and finally I will present what the authors in the literature review says about each question. After all this, in each research question I will make a small comparasion between the results of the survey plus the interview´s results and what have been said in the literature review. Furthermore, in the main conclusion chapter I will sum up some general ideas that I gather from this work.

6.1. Is the AI having a positive impact in all type of industries (RQ1)?

Regarding the answers I got from the questionares I launched on the internet, we can see from the graphic 3 below that more than 50% of the sample, taking into considerations their working industries, considered that AI is having a big impact on it (62,10%). This percentage represents, more or less, 64 people, however in the other way only 19,4% considered that AI is not having an impact on their working field. This percentage represents 20 people. Having, 19 people with a neutral thought about the impact that AI is having on their working industry.

Graphic 3. Answers from online survey relative to RQ1
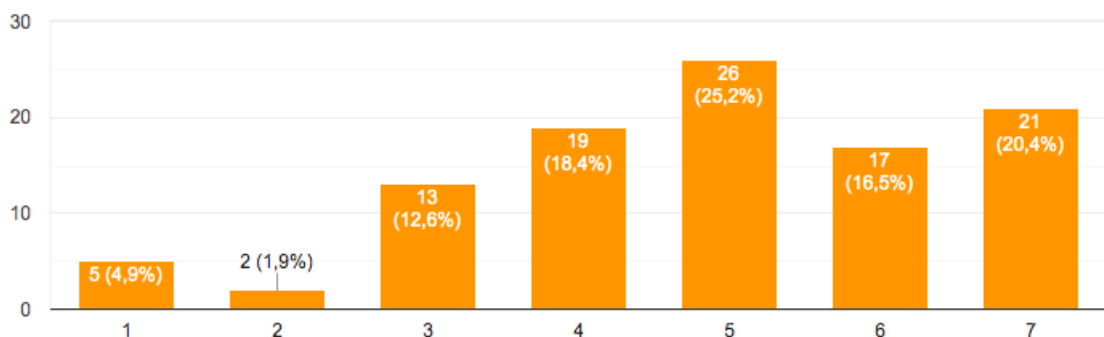
In the following graphic 4, we can see the major challenges that companies face nowadays, regarding the answers I got from the questionares. On top of it, we can clearly see that the

process complexity is the major aspect that they considered to be a rock on the way to use AI in their companies with almost 50% of the answers (42,2%). The second challenge that need to be overcome in the use of AI is the lack of internal knowledge from the companies (18,6%). The other three aspects have their percentage very close to each other but in order of importance (percentage of answers), we have the internal resistence, then the amount spend to implement AI in the business and at last the lack of value aggregate for the business.

Graphic 4. Answers from online survey relative to RQ1

What do you think it could be the challenges for implement AI in your organizations?
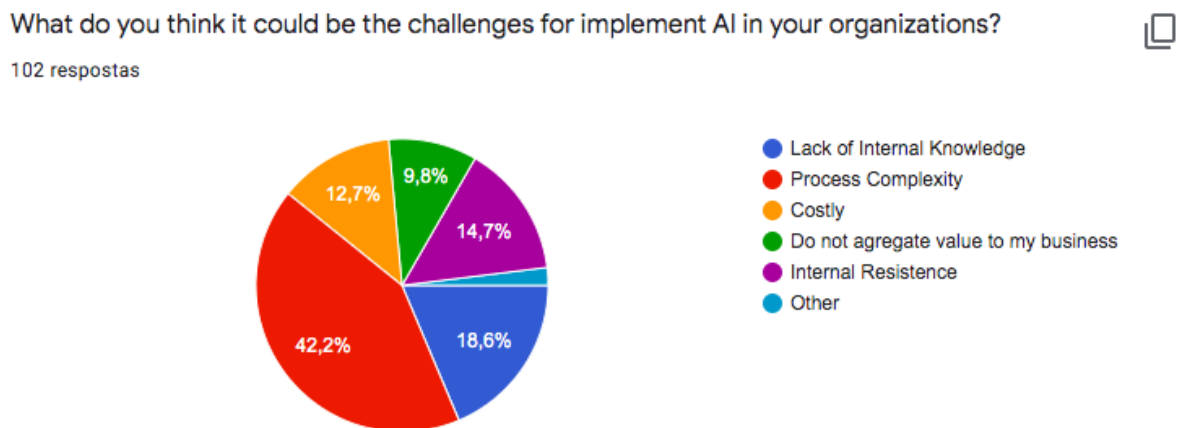
102 respostas

Having now a quick look over the answers I got from the interviews I made, it can clearly be seen that the majority of my interviewed do agree that the AI is having already an impact in the world, althought not in all industries with the same propotion, 7 out of 11 says it (63,6%). Only three people think that the AI is not having an impact on the industries, however they do think it will come out in a near future to be an essential tool, used by most of the workers. Finally, only one interviewed think that the AI impact can be seen in all industries.

Table 3. The Impact of AI in the different industries

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
Yes, but in some industries the effect is more visible than in others	1.1	1.1.2	7	1,2,3,4,6,8,10
Not yet, but it will have in a near future	1.1	1.1.2	3	5,9,11
Yes, it has been shown that AI is having a positive impact already in all type industries	1.1	1.1.2	1	7

Source: Author

On the literature review, (Mendes, 1997) says that AI was and has been developed to solve some problems in specific areas, such as medicine, which from his point of view was the industrie that has benefited greatly from AI developments.

Going on to the same point of view of (Mendes 1997), (Librantz *et al.*, 2017) considered that medicine is an area where specialists are extremely difficult to replace and the use of these machines makes perfect sense because it improves the doctor´s ability to make a better decision and with a significant reduction in the analysis process.

However, taking into consideration (Gray, 2017) suggests that customers trust AI less, and so hold AI to a higher standard, because they believe that AI cannot "feel". The author believe that task characteristics also influence AI adoption. In order with (Castelo, 2019) a task that appears subjective, involving intuition or affect, customers likely are even less comfortable with AI. Research confirms that customers are less willing to use AI for tasks involving subjectivity, intuition, and affect, because they perceive AI as lacking the affective capability or empathy needed to perform such tasks (Castelo *et al.,* 2018).

Tasks differ in their consequences; choosing a movie is relatively less consequential but steering a car may involve more consequences. Using AI for consequential tasks is perceived as involving more risk, in turn reducing adoption intentions. Early work has found support for this hypothesis, more so among more conservative consumers for whom risks are more salient (Castelo *et al.,* 2018; Castelo & Ward 2016). Customer characteristics may also impact AI adoption. We build from two points: (1) when outcomes are consequential, this increases perceptions of risk (Bettman, 1973), and (2) women perceive more risk in general (Gustafsod, 1998) and take on less risk (Byrnes *et al.,* 1999). Hence, early work has found that women (vs. men) are less likely to adopt AI, especially when outcomes are consequential (Castelo & Ward, 2016).

Comparing the results from the interviews plus the survey with the literature review (RQ1):

Both interviewees and the people that answer the online survey believe that the AI is having a positive impact in all type of industries, however we have some authors that disagree with that. (Mendes 1997) said that AI is having a positive impact in some specific areas, on the other hand (Librantz *et al.*, 2017) said that the contribute of AI in the medicine field is more complicated than it can seem to be. Gray (2017) said that the customers are less willing to trust AI, even

more when we are talking about processes that have more consequencies than others, or some of them that involve feelings.

6.2. Does the área will be an importante issue to take AI? Can AI substitute with 100% success the human tasks (RQ2)?

Regarding now the answers from the questionnaire, it can be seen that only one person said that the artificial intelligence can substitute the human work with the same or a better performance. On the other hand, it can be also seen that more than 70% (70,9%, this represents more or less 73 people) thinks that the artificial intelligence can not substitute the human in order to have a better performance. All this values we can be check on the graphic 5 below.

Graphic 5. Answers from online survey relative to RQ2
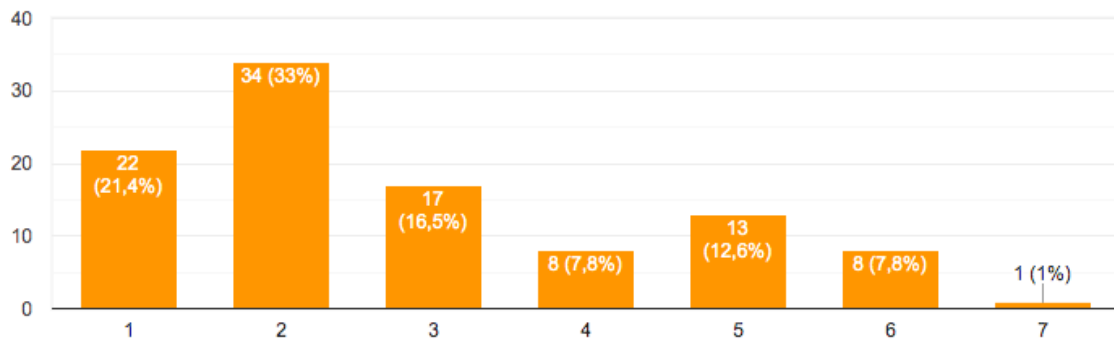
Having now a close look to what the interviewed said, it can clearly be seen that all of them agree that the human can not be substitute by artificial intelligence in order to achieve a similar or a better performance.

Table 4. The Demography impact on the use of AI in the business, as well as, the eficiency of the AI rather than the human work

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
The área where you or your business are matters for the implementation of AI and it will never be 100% effective on substitute the human	1.2	1.2.3	11	1, 2,3, 4,5, 6,7,8,9,10,11

Source: Author

Regarding the literature review, customer characteristics may also impact AI adoption. We build from two points: (1) when outcomes are consequential, this increases perceptions of risk (Bettman, 1973), and (2) women perceive more risk in general (Gustafsod 1998) and take on less risk (Byrnes *et al.,* 1999). Hence, early work has found that women (vs. men) are less likely to adopt AI, especially when outcomes are consequential (Castelo & Ward 2016). Moving beyond demographics, other factors also impact the extent of AI adoption, e.g., to the extent a task is salient to a customer's identity, the customer may be less likely to adopt AI (Castelo, 2019).

To elaborate, if a certain consumption activity is central to a customer's identity, then the customer likes to take credit for consumption outcomes (Leung *et al.,* 2018). Some customers perceive that using AI for these consumption activities is tantamount to cheating, and this hinders the attribution of credit post-consumption. Therefore, if an activity is central to a customer's identity, then the customer may be less likely to adopt AI (for this activity).

Comparing the results from the interviews plus the survey with the literature review (RQ2):

The answers I got from the surveys went in the same direction as the answers I got from the interviews. The geographic issue is important when you want to take AI into your business. At the same time, both ways to get the answers think that the AI will not substitute the human being with 100% efficiency. (Bettman, 1973; Gustafsod, 1998; Brynes *et al.,* 1999; Castelo & Ward, 2016) do think that the AI will not substitute the human, due to the lack of trust that people have about something that is a sowftware. Moreover, they said that women are less willing to take AI and even more if we are talking about consequential events/decisions.

6.3. Does getting a loyal customer depends more on the product or on the salesman (RQ3)?

Regarding now the answers for the questionnaire, I made two different questions in order to know what the people in general values more to achieve their loyalty to a brand: the salesman or the product? Taking into consideration these two graphics 6 and 7 below, it can be seen that in the first one 74,4% (that represents 77 people) do think that the salesman has an huge importance when we are talking about achiving customer loyalty. Whereas, on the second graphic below, it can be seen that 77,6% (that represents 80 people) think that the product is really important to achieve the loyalty of a customer. From this, it can be concluded that both aspects are really important to achieve customer loyalty and both percentages are really close to each other. Doing a small comparation, it can be seen that the product might be slightly more important to achieve the customer loyalty rather than the product (77,6% > 74,4%).

Graphic 6. Answers from online survey relative to RQ3

How can you weight the importance of the salesman in order to have a customer loyal to your brand?

103 respostas

- 1 (1%)
- 5 (4,9%)
- 20 (19,4%)
- 40 (38,8%)
- 37 (35,9%)
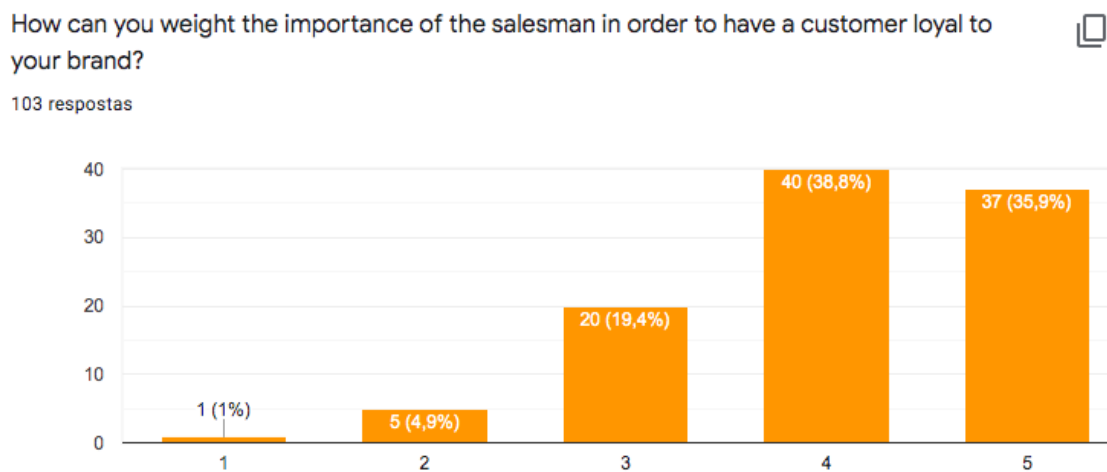
Graphic 7. Answers from online survey relative to RQ3

How can you weight the importance of the product in order to have a customer loyal to your brand?

103 respostas
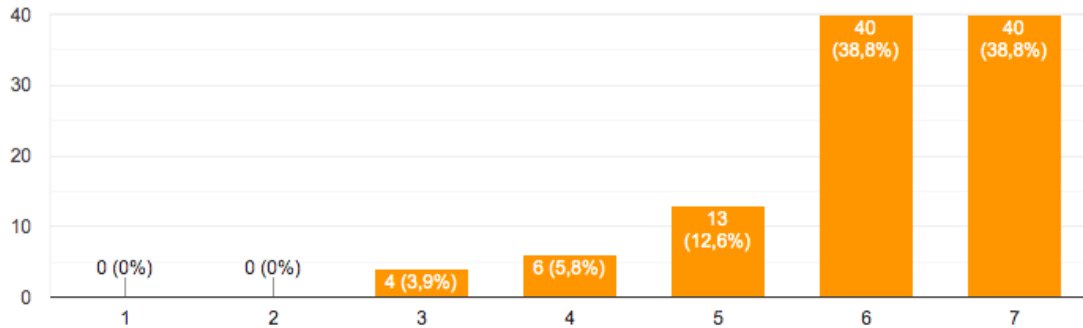
Taking now into consideration the answers I got from the interviews, the opinion about which of these two aspects (salesman or product) weights more to achieve the customer loyalty is also very close to each other. Being said five times (5 out of 11, which represents 45,5%) that the salesman is more important to get a loyal customer rather than the product, compared to the four times (4 out of 11, which represents 36,4%) that the product is more important to achieve the customer loyalty rather then the salesman. On the other hand, two people (2 out of 11, which represents 18,2%) said neither each of them weights more to achieve that loyalty, but a good mix is the key to get a customer loyal to a brand.

Table 5. The features to have a loyal customer: Salesman and Product

Text	Generic Cathegory	Sub cathe-gory	Nº said	Interviewee
The salesman is more important to get a loyal customer comparing to the importance of the product	1.1	1.1.2	5	1,2,3,5,11
You can have a skillfull salesman, but if you do not have a excelent product you can not have loyal customers	1.1	1.1.2	4	4,7,8,10
To have loyal customers, you should have a good mix be-tween the product and the salesman	1.1	1.1.2	2	6,9

Source: Author

Having a look now on the literature review, despite the advances made in the research conducted in the area of marketing, in the sales area, advances are scarcer (Ahearne, 2017). One of the barriers that most sales researchers have encountered is access to quality business data, and the need to identify the issues that are truly impacting for the academic community and sales directors at the same time. For Nartissa (2012), most microenterprises are concentrated on direct management and production, not on research. They do not reach their full potential due to lack of knowledge about method, skills, and new trends in science and research.

Steenburgh and Ahearne (2018) suggest that the most successful sellers are those who constantly want to learn because customers want to know exactly the history of the products they buy. Therefore, it is necessary to create a mindset of demand, research and development in corporate salespeople. Steenburgh and Ahearne (2018) state that the time spent in each customer is longer for a seller selling a new product than a seller who sells regular goods.

<u>Comparing the results from the interviews plus the survey with the literature review (RQ3):</u>

Both the eleven people that I interviewed and the 103 people that answered my survey do consider that the salesman is as important as it is the product if you want to achieve loyalty customer. The difference between both are really small. Concerning the online survey, 74,4% consider the salesman as the main key to achieve loyal customers, whereas for the product they gave 77,6%. Taking into consideration the interviews, 45,5% consider the salesman as the main key, against 36,4% for the product. Comparing these results with the literature review, it says that few studies have been done on this area (Ahearne, 2017), however clients want to know more and more about the history of the products they actually buy and for that you need a knowledge salesman that can clear up the client´s doubts (Steenburgh & Ahearne, 2018).

6.4. What are the best ways to get a loyal customer when you have a business running online (e-commerce) (RQ4)?

Having a look over the answers I got from the questionaires, we can say that using business intelligence tools is the program most valuable in order to achieve customer loyalty when we have a business running online (e-commerce) with 78 people choosing that option, which represents 75,7%. The other two programs that are also consider by the respondents are the use of chatbots with 42,7%, which represents 44 people and the use of rewarding systems with 43,7%, which represents 45 people. The program that less people voted for it was the use of virtual communities with 16,5%, which represents 17 people. However, is really important to know that each person chose 2 programs, which means that it can be seen say that the use of a business intelligence tool can be by far the most valuable program to achieve the customer loyalty according to the graphic 8 below.

Graphic 8. Answers from online survey relative to RQ4

Which programs suits best in order to achieve customer loyalty when you have a business running online (e-commerce)? Choose 2 out of 5

103 respostas

Use Chatbots (ex: virtual person helpin...) — 44 (42,7%)
Use Business Intelligence (ex: program ...) — 78 (75,7%)
Use Rewarding System Programs (ex: cash...) — 45 (43,7%)
Use Virtual Communities Programs (ex: o...) — 17 (16,5%)
Use Equity-Based Loyalty Programs (ex: ...) — 19 (18,4%)
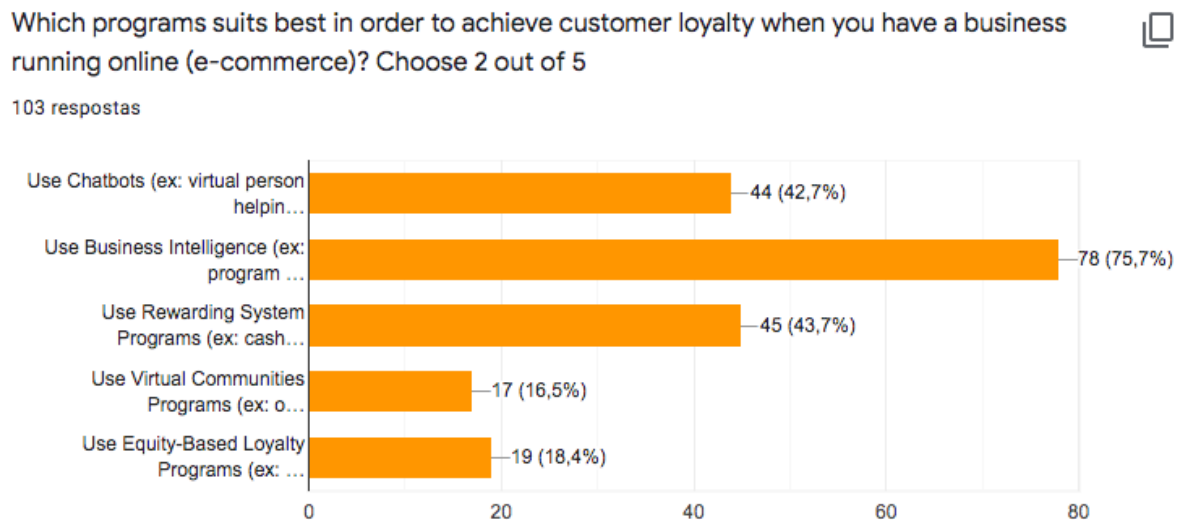
Taking into consideration now the answers from the interviews and having a look on the table below (Table 13), among all the answers I got, there were four aspects that they consider essential do achieve loyal customer, when having a business running online. First of all, the customer follow-up, efore, during and after the sale, was said by 5 out of 11 people. Then, said 4 times we have two aspects: the use of AI tools to know better the customer´s habits and likes and also present an excellence product, meaning, fair practice, good promotion, top quality among other important aspects. At last, with 3 people answering that the lead time is an issue

crucial to obtain customer loyalty, when you have a business running online, without a physical store.

Table 6. Best ways to get loyal customers when you have a business running online

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
When having an e-commerce business, it is crucial to be at all time there for the cliente: before, during and after the sale	1.1	1.1.2	5	5,7,8,10,11
When having an e-commerce business, it is crucial to have an excellent lead-time	1.1	1.1.2	3	4,5,9
When having na e-commerce business, it is crucial to have an excellent product: price, features, promotion	1.1	1.1.2	4	1,4,9,10
When having na e-commerce business, it is crucial to have some AI tools to know better what is our client looking for in order to advise him/her on about the right products to shop	1.1	1.1.2	4	2,3,6,8

Source: Author

Taking into consideration what has been written on the literature review, Khatibi *et al.* (2003) also conclude that most of the companies interviewed consider that e-commerce is a real competitive advantage and that competing companies that ignore this technological advance will eventually close down. Sharma *et al.* (2014) state that the use of business intelligence enables the companies to better understand their business problems, as well as the market in which they operate, identifying the opportunities through analysis of current operations, and which may lead to new forms of financial return or savings costs.

In terms of e-commerce, there are two different types of programs: rewarding system and virtual communities. Rewarding systems give members financial benefits (Enzmann & Schneider, 2005). The popular form is based on cash-back reward program where suppliers pay certain amount of money for every qualified purchase which is a fixed percentage of purchase amounts. This kind of rewarding program causes increase in sales in a short interval of time but customers don't necessarily repeat purchases (Altinkemer & Ozcelik, 2009). Virtual communities refer to social aspects, like an online discussion panel on product related problems (Enzmann & Schneider, 2005).

Comparing the results from the interviews plus the survey with the literature review (RQ4):

In one hand, the answers I got from the online survey shows us that for the respondents the crucial aspect to get the customers loyal to a brand, when they online have an e-commerce, is through out business intelligence tools. After these tools, the chatbots and the rewarding systems come after as factors to use when you have a business running online. On the other hand, the interviewed do think that a excellent process of follow-up the sale is crucial when you are just operating online. By follow-up, they mean before, during and after the moment of the purchase. Comparing this two opinions with what is written on the literature review, it can be said that the e-commerce is having and will have an huge impact in the worldwide economy and if some companies ignore that, they will fall apart in a near future (Khatibi *et al.,* 2003). Sharma *et al.* (2014), goes in the same direction as the answers I got from the interviews and the online survey, considering that using business intelligence tools is the key to get customers loyal to that brand. Rewarding systems can be a good idea to start the process, because they can guarantee some purchases in the short term, although it does not necessarily mean a re-purchase in a medium/long term.

6.5. Can a company survive and be successful without loyalty programs (RQ5)?

Regarding the survey that I had online, 42,7% consider that a company can not survive and be successful without loyalty programs. If we sum the percentages of the "disagree" and the "Strongly disagree", we have 50,5%, which means that half of the sample have agree that a loyalty program is needed for a company to survive and be successful. On the other hand, 27,2% of the sample have a neutral opinion, which means that the rest (22,3% - 22 people) agree on the fact that the loyalty programs nowadays, are not crucial to a company survive and achieve their goals. All this values, we can check it out on graphic 9 below.

Graphic 9. Answers from online survey relative to RQ5
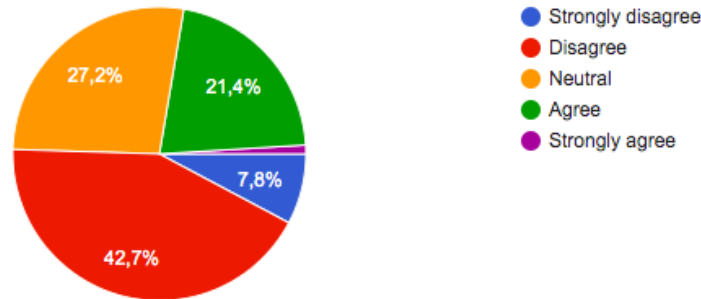
Taking into consideration the interviews I made, the major opinion goes the other way around, with six out of eleven people, saying that the loyalty programs are not essencial to survive and be successful in the business world. Only three people said that the loyalty programs are needed to a company survive and be successful. Finally, just two people have a more ponderate opinion, saying that the utility of the loyalty programs is essential to companies in order to survive and be successful, but it will depend on the market they are into.

Table 7. The importance of the loyalty programs to the companies

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
If you, as a company, wants to survive and be successful you need loyalty programs.	1.1	1.1.2	3	3,5,6
The loyalty programs are not essencial to survive and be successful in the business world.	1.1	1.1.2	6	4,7,8,9,10,11
The loyalty programs are important in some markets to overcome the competitors.	1.1	1.1.2	2	1,2

Source: Author

Having a look now on the literature review, customer loyalty programmes are reward systems that firms put in place to encourage consumers to increase their consumption and tenure with the firm, as well as to make the firm attractive to new customers. The programs do this by increasing perceived switching costs for the consumer and also by improving the attractiveness of the company's offerings (Wirtz *et al.,* 2007). Considerable controversy surrounds the cost

benefits of loyalty programmes. For example, Liu (2007) finds limited evidence of their effectiveness and states that the efficacy of customer loyalty programmes is not well established.

In contrast, Meyer-Waarden (2007) finds evidence that loyalty programs increase consumption. Loyalty programs have existed for 30 years. American Airlines was the first to launch a loyalty program and called it "Frequent Flyer Program". Over the years, loyalty program has become prevalent (Vinod, 2011). Loyalty programs are a marketing strategy focused on offering benefits to achieve loyal customer retention. These programs are also called frequent purchase programs or reward programs because benefits depend on purchasing frequency (Gómez *et al.,* 2006).

Comparing the results from the interviews plus the survey with the literature review (RQ5):

On this research question, the answers I got were opposite. From the online survey, I got that the loyalty programs are needed (50,5%) in order to be successful and to survive and the business world, whereas the opinion from the interviews goes the other way around, with 54,5% saying that the loyalty programs are not needed if a company wants to be successful and survive. On the literature review it can be state that the opinions also differ, Liu (2007) sees limited value on the use of loyalty programs for companies, whereas (Vinod, 2011) says that over the years, loyalty program have become prevalent.

6.6. When can we consider a customer a loyal one? And how can we weight the importance of a customer for a business (RQ6)?

Regarding the questionaires, the answers I got ftom this question are quite inquestionable, because more than half of the 103 people that answer it, said that "the frequency of purchases" is the aspect more important when you want to judge if a customer is loyal to a brand or not. However, another big important aspect is "the good word of mouth about the brand", with 32% of the sample said it is the aspect number one, when you want to consider a customer loyal to a brand. If we sum the 32% with 54,4% of the frequency of purchases, we reach a total number of 86,4%, which represents more or less 89 peoplo. This means that the rest 14 people consider that the aspect most important, when you want to evaluate if a customer is loyal to the brand or not, is the between two aspects: "The amount spent in the store" and " Time spent inside the store or on the website". All these values are on the graphic 10 below.

Graphic 10. Answers from online survey relative to RQ6
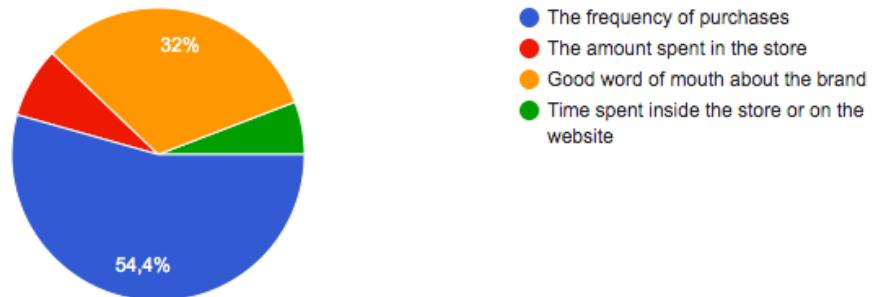
Passing now through the content analysis, we have the answers from the interviews I have made. On table 15 below, we can see it. We can state that almost everyone said that a "when a customer defends and spread the good aspects of the brand" (10/11), we can consider that he is loyal to the brand, and also, when he spends a certain amount on the products/services of the brand (9/11), we can also consider it. On the other hand, only 6 people says that the re-purchase is the real aspect to consider if a customer is loyal or not to a certain brand. At last, only two interviewed said that the period the client spend inside the store is the real aspect to consider if the customer is loyal to the brand or not. All in all, more or less, 86% of the samples are in agreement with the survey´s answers.

Table 8. The customer´s importance for a business and his loyalty to a brand

Text	Generic Cathegory	Sub cathegory	N° said	Interviewee
When the customer makes a re-purchase we can consider he is loyal and important for a business	1.1	1.1.2	6	4,5,6,7,8,9
When the customer defends and spread the good aspects of the brand we can consider he is loyal and important for a business	1.1	1.1.2	10	1,2,3,4,5,6,7,8,10,11
When the customer spends a certain amount on the products/services of the brand, we can consider he is loyal and important for a business	1.1	1.1.2	9	1,2,3,4,6,7,8,10,11
When the customer has been client for a certain period of time, we can consider he is loyal and important for a business	1.1	1.1.2	3	2,3,9

Source: Author

Taking into consideration the literature review, customer satisfaction is an absolute necessity in achieving organizational goals. It is also a fundamental criterion for performance and is an indicator of the excellence of any organization (Gerson, 1993). When the organization achieves customer satisfaction, the customers promote the organization through word of mouth. This is reflected in the attraction of new customers as well as the times of purchase being repeated seeing as the customers are less inclined to go to competitors (Reichheld *et al.,* 1990). Satisfied customers are willing to pay attention to the organizations which satisfy their needs even if they end up paying more. They prefer to remain with the organization rather than face the risks of moving to other services at lower prices (Reichheld *et al.,* 1990).

Conversely, dissatisfied customers often express their feelings behaviorally (Zeelenberg & Pieters, 2004). Thus, negative and positive trends may affect the profitability of the company where customers move their attitudes and negative feelings to others through social media which can have an even bigger impact than that of the word of mouth positively or negatively affect the company. The results of the research indicated that one unsatisfied customer may pass his or her bad experience to nine other customers (Hoffman & Bateson, 2010). A bad word of mouth has a negative and harmful effect on the organization. It affects both the organization's reputation and profitability.

On the other hand, if the customer's problem is resolved in a satisfied manner, he will transfer his positive experience to five other persons who are likely to deal with the same company as a result of this positive word of mouth (Hoffman & Bateson, 2010). Oliver (1997) indicated that customer satisfaction determines the repurchase, which increases the future profits of the organization. When customers receive a high level of satisfaction, they repeat the purchase, resulting in an increase in customer loyalty and lower customer complaints as well as a good word of mouth.

In any business, building a strong brand is an important goal. This is an essential part of a business that promotes overall success as well as ensuring long-term growth and advancement in the marketplace (Al-Jubari *et al.,* 2019).

Comparing the results from the interviews plus the survey with the literature review (RQ6):

Taking into consideration the answers I got from the online survey it says that the frequency of purchase (50%) is the most important aspect when you want to see if a customer is loyal to a

brand or not. The second most important aspect, according the 103 people that answer the survey is the good word of mouth (32%). From the interviews, the answers I got were more homogeneous with 90% saying that the good word of mouth is the essential key to assess if a customer is loyal to a brand or not. On the literature review, (Reichheld *et al.,* 1990) said that when we can get customer satisfaction, the good word of mouth come out and will make customers less willing to go for the product´s competitors. Moreover, Hoffman & Bateson 2010) said that a bad experience with a client it will spread for nine different people, whereas a good customer experience will spread for five different people.

6.7. Do you believe you need a natural disposition to become an entrepreneur or it comes out due to the circunstancies/experiences you pass through (RQ7)?

Regarding the answers I got from the survey, 72,8% of the samples, which represents 75 people do thing that you need a natural disposition to be an entrepreneur as we can see on the graphic 9 below. On the other hand, the graphic 12 below the graphic11 shows us, that 73,8% of the sample, which represents 76 people do believe that to be an entrepreneur it come up due to the circunstancies/experiences you pass through. It is also interesting to observe that, the answers I got, reveal that the people have a more spread opinion related to the natural disposition, whereas when it come up due to the circunstancies of their life the opinion is more concentrated (60,2% is on the 5 and 6 collum).

Graphic 11. Answers from online survey relative to RQ7
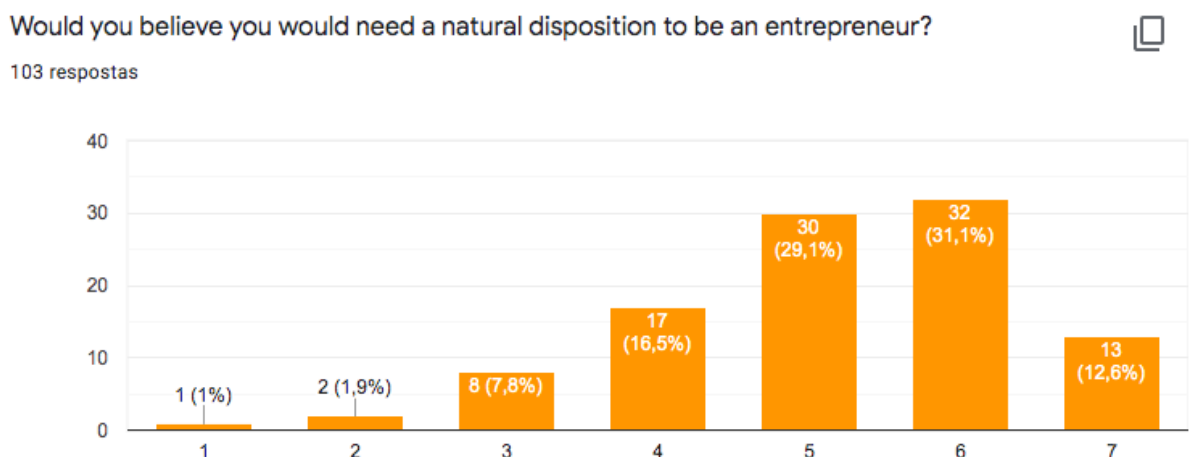
Graphic 12. Answers from online survey relative to RQ8

Is the will to become an entrepreneur comes up due to the circumstances you are surrounded by?

103 respostas
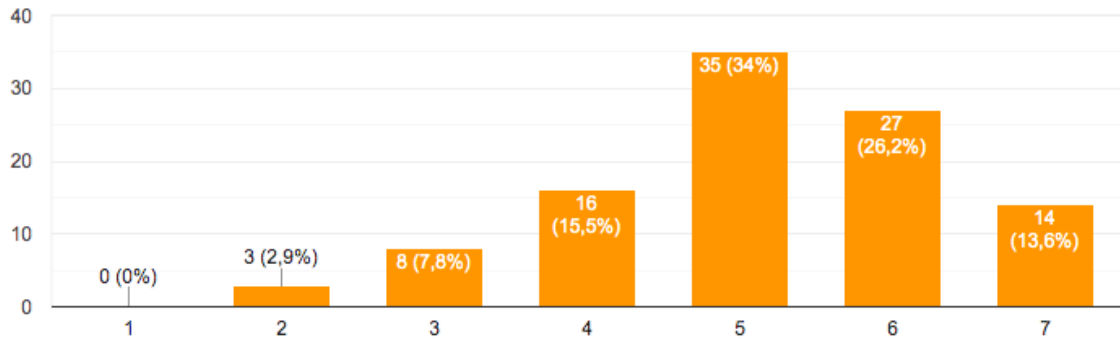
Taking now into consideration table 9 below, we can observe that the answers from the interviews goes in agreement with the survey´s answers. 4 out of 11 people think that to become an entrepreneur the main reasons are due to intrinsic aspects, rather than experiences you pass through out your life. On the other hand, also 4 out 11 people do thing that the experiences you have during your lifetime are the main key to exploit your desire to become an entrepreneur. To leave this analysis even more balance, 3 out 11 people think that must be a mix between these two aspects, that are the cause to launch their entrepreneur path.

Table 9. The reasons to become an entrepreneur

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
The reason to become an entrepreneur is more due to the experiences and circunstancies that you pass trough out your life	1.2	1.2.2	4	3,4,8,10
The reason to become an entrepreneur comes out from intrinsic aspects	1.2	1.2.2	4	1,2,7,11
There must be a mix between natural disposition and the experiences you have in life to become an entrepreneur	1.2	1.2.2	3	5,6,9

Source: Author

The authors on the literature review consider that although entrepreneurs are constantly scouting for opportunities in their environments (Hilmersson & Papaioannou, 2015), the context has rarely been studied in connection with opportunity recognition (Phillips *et al.*, 2015). Since the institutional context constitutes a significant factor in the progress of immigrant entrepreneurship, it should be taken into account (Aliaga-Isla & Rialp, 2013).

Comparing the results from the interviews plus the survey with the literature review (RQ7):

Regarding what was written above about the seven research question, the 103 people that answered the online survey do think that to become an entrepreneur you need a natural disposition (72,8%) for that, but at the same time the experiences (73,8%) you have during your life are at the same time important to become an entrepreneur. Regarding the interviews, the opinion was quite the same, with 4 out of 11 saying you need a natural disposition and also 4 out of 11 saying that the circunstancies are the main reason to become an entrepreneur. For sure, this question does not has an obvious answer, although entrepreneurs are constantly scouting for opportunities in their environments (Hilmersson & Papaioannou, 2015), the context has rarely been studied in connection with opportunity recognition (Phillips *et al,*, 2015).

6.8. How do you define the entrepreneur profile and seen by the others (RQ8)?

Having a look now on table 10 below, we can see that either the interviewed or the society have different perspectives to see and jugde what an entrepreneur means to them. Interviewee 3 and 6 do consider that an entrepreneur is someone who is risk averse, but the society through their eyes see him as a lunatic person. On the other hand, interviewee 2 and 10 think that an entrepreneur is someone who is risk averse, but their thoughts about how the society sees an entrepreneur is someone who is a fighter. Finally, interviewee 1 and 9 do think that an entrepreneur is someone who is a creator and, they think that the Portuguese society judge them has a fighter too.

Table 10. Different perspectives to see an entrepreneur nowadays in Portugal

Text	Generic Cathegory	Sub cathegory	Nº said	Interviewee
The entrepreneur is someone who is risk averse, but the society see him as a lunatic person	1.2	1.2.1	2	3,6
The entrepreneur is someone who is a creator, but the society see him as a looser	1.2	1.2.1	1	4
The entrepreneur is someone who has the iniciative for everything, but the society is jealous about his success	1.2	1.2.1	1	7
The entrepreneur is someone who is risk averse, but the society is jealous about his success	1.2	1.2.1	1	11
The entrepreneur is someone who is risk averse, but the society see him as a fighter	1.2	1.2.1	2	2,10
The entrepreneur is someone who is a creator, but the society see him as a fighter	1.2	1.2.1	2	1,9
The entrepreneur is someone who desires to create new workplaces, but the society is jealous about his success	1.2	1.2.1	2	5,8

Source: Author

Having a look now on the literature review, the way firms deal with entrepreneurial failures appears to be a challenging avenue for future study for two reasons. First, Kelley *et al.* show that tolerance for failures is ail important aspect of ail entrepreneurial culture. In most organizations failure prevention is a dominant tendency, because of an anti-failure bias (McGrath, 1999). There is a danger that this may lead to risk averse behavior and curtail the search for new opportunities. As a result, entrepreneurial projects with relatively uncertain outcomes are not initiated and potential intrapreneurs may leave the firm.

To overcome this bias, management can play an important role by creating favorable conditions, such as commitment to an entrepreneurial strategy, support for internal ventures and the creation of favorable incentive mechanisms (Kelley *et al.*, this volume; Bartlett & Ghoshal, 1993).The second reason to pay closer attention to entrepreneurial failure has to do with failure management rather than the consequences of failure prevention. The challenge is to learn from failures.

Firms may perceive entrepreneurial projects or internal ventures as competence-building exploration efforts involving some degree of trial-and-error learning. Failures are unavoidably associated with the learning process and the question is how firms can use their failures in a constructive manner and thus benefit from them (McGrath, 1999). Existing insights indicate

there are a number of lessons to be learned. In order to interpret the magnitude and implications of an entrepreneurial failure it is crucial to be able to evaluate the development of a venture with its goals and underlying assumptions. Modest failures are relatively easy to interpret and therefore to learn from (Sitkin & Pablo, 1992).

<u>Comparing the results from the interviews plus the survey with the literature review (RQ8):</u>

The interviewed see the entrepreneur as a risk averse person and a creator, someone who has iniciative for things, whereas on the literature review, it says that management should create favorable conditions to support entrepreneurs (Bartlett & Ghoshal, 1993). Using failures in a constructive manner and thus benefit from them (McGrath, 1999).

Chapter VII - Conclusions

7.1. Final Considerations

The continous pressure that the markets in genereal do in the companies, in an environment even more competitive makes the organizations re-think the strategy, in order to adapt to the world we are living in right now (Lopes da Costa & António, 2011). Being said that, this investigation had as main propose understand and measure the impact that artificial intelligence had/is having and will have over customer loyalty and entrepreneurship. In the following of the literature review, that has three main chapter, firstly about artificial intelligence in general, secondly the impact that AI is having on customer loyalty and thridly the imapct that AI is having on entrepreneurship, and also after doing eleven interviews to people that have their own business, or are working with artificial intelligence, or even had/ are working in the customer loyalty field, was possible to reach to a bunch of conclusions about my dissertion theme.

It is important to say that the people that went over my interview, were not an expert on artificial intelligence, however all of them have a huge knowledge on the customer loyalty and entreprenership field. Moreover, most of them also work with artificial intelligence inderictly on their daily basis.

The artificial intelligence is having a positive impact on the industries, however there are some tasks that human does not trust to be done by a software or a machine. When this task gathers more potential consequences, the level of acceptance of AI is lower. In the same logic, it can be said that is very unlikely the AI substitute per entire the human job. The face to face talks are needed to our survival, else we would be all computers.

Both the product and the salesman are an important piece to achieve loyalty, but we can jeopardize one part in order to select the other. The best way to get loyal customers is to have a good mix between these two things. Moreover, we are living in a world that the customers are more curious about what they purchase, so a salesman that knows it, goes ahead comparing other salesman that do not know the caracteristics, history or other aspects of the products. Nevertheless, knowing well their customers is halfway done to conquer more clients and that can be done or at least get closer with the use of business intelligence tools. This applies even more when we are talking about e-commerce.

The face to face talk in the past and also now can close a lot of business, but when you have a business running online it is not possible, so one crucial advantage is to use business intelligence tools that can deviliry to the client when they are surfing on the website the exact product that they are looking for.

Being said that and turning now into loyalty programs, they are crucial to achive company goals, however it will all depend on the industry we are talking about. If we consider a luxury industry the loyalty programs should be a "may have" issue for the companies, whereas if we are talking about a primary industry (food industry) the utility of the loyalty programs are more duable.

Finally, talking about entrepreneurship there have not being done studies about where does the desire to become entrepreneur comes out, although the information I got from the online survey and the interviews is quite divided. At first glance, it can be sait it is 50%/50% between natural disposition and experiences had, however this percentage can change due to many factors.

To finish this main conclusions about this work, the Portuguese society sees the entrepreneur as a lunatic person, someone who must be a fighter to face so many difficulties, however and going towards the interviews opinion, an entrepreneur is someone who is risk averse, who has the inicitiative for things and the main reason that in Portugal the percentage of success is really low is mainly due to the lack of support our country offers to this type of iniciatives.

7.2. Contribution for the state of the art

Customer loyalty and entrepreneurship are themes that are present in our lives since our grandparents, however the introduction of some technologies that are coming up nowadays are changing the way we see it. Moreover, these technologies such as: machine learning, artificial intelligence are getting into the human´s task in order to achieve an higher efficiency on the different processes.

Taking this into consideration, this work includes the impact that AI can have on both themes and in some part of the literature review this was not study yet. As for example, in the literature review many authors said that humans do not trust in AI, however nowdays many companies rely on AI to solve and save time and money in some tasks.

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On the other hand, the reason to become an entrepreneur following the survey´s answer and the interview´s answer is quite divisible. It can come up due to natural dispositions or due to the experiences to pass through in live. On the literature review this has not been study yet, or at least no one have a clear notion about it.

Finally, the Portuguese society sees an entrepreneur as someone who is madness, lunatic or jealous and when they fail on trying to launch a new business, everyone says that it was obvious that we will fail, because it is really difficult to start a new business. However, on the literature review we can see that according to some authors, we should use failures in a constructive manner and thus benefit from them.

7.3. Contribution to business strategy

The artificial intelligence tool will be very useful in a very near future, and I could say crucial when we are talking about specific markets where the competitiveness is so high. The AI can be a major advantage to overcome the competitors and achieve better results.

The main goal of this work is to help and understand how and where can AI make na huge difference on customer loyalty and on laucnhing a new business, based on interviews made to high qualified people that work on the field directly or indirectly. Moreover, on this interviews I made some questions about the impact that AI is having or will have on their working industry; if they consider that already exists loyalty programs for e-commerce, or which business really need loyalty programs to survive. Apart from it, I also gather some answers through out a online survey, where I can have a different perspective from the subject given by a more wide audience.

Following this structure, and going towards with what I found on the literature review, this investigation has the aim to better help na entrepreneur laucnhing a new business with AI integrated and also to give a better look about the importance or advantages to use AI when we are talking about customer loyalty.

Nevertheless, it is important to say that more studies are needed to better undestand the real impact that AI will have on these two aspects: customer loyalty and entrepreneurship, mainly due to the rapid advances that we have nowadays on the artificial intelligence and machine learning field, that from one day to another everything can change.

7.4. Academic Experiences

It was on the following of my master's degree in management at ISCTE Business School by having some important discussions with some professors that exploited on me the desire to do some investigation on this field. Moreover, due to the wide professional experiences that I already had on the customer loyalty field, together with my desire to create my on business I decided that my dissertation should be on this two fields.

Futhermore, I have also been a strategy addicted, that is why I went to talk with Professor Renato Costa, from the strategy departmend that get very excited with the theme and challenge me to insert artificial intelligence as the main ingredient on my work. Personnaly, I loved to do this work, not only for being a very recent and interesting topic, but also because it is helping me on my current job and will certainly help when I will launch my own business. At last, I will like to praise the opportunity to interview eleven high qualified workers on this fields, that certainly not only contribute to my thesis, but also to my personal overiview of the different questions I was asking during each interview.

7.5. Study Limitations

It was really interesting to observe the diferente opinions from the interviewees, which leads me to conclude that we do not have a correct answer for the different questions. Some of this study went towards what have been said on the literature review, about customer loyalty and entrepreneurship. However, this is an exploratory study that can not be widespread or prepresentative.

Even though, I had opinions from high knowledge people, we can not assume an universal true, because firstly every case is different from the others: different industries, different countires, different clients, different types of management among other different issues. Moreover, has we been talking about a techonological field the information is in constantly update, which

means that this work after 3 months can be out of date. At last, never forget that this work has his base on the Portuguese market, which in part can restrict the results.

7.6. Suggestions for future investigations

Taking into consideration, what has been said in the chapter above, I could say that some areas can be considered an interesting topic to be studied. Firstly, I can suggest having this same investigation but on a different geopraphy, for example on United States of America. Secondly, I can suggest studying the impact that artificial intelligence is having on the customer loyalty after the different updates that AI will certainly have.

Also, it could be a good and useful future investigation to study how firms deal with entrepreneurial failure, since it has not been studied yet.

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Attachment A

Interview Script:

Q1 – Is the AI having a positive impact on all type of industries?

Q2 – Does the área/country that you live in will be na importante issue to take AI or not? Can AI substitute 100% successfully?

Q3 – Does getting a loyal customer depends more on the product oro n who is selling it?

Q4 – What are the best ways to get loyal customers, when you have a business running online (e-commerce)?

Q5 – Can a company survive and be successful without loyalty programs?

Q6 – When can we consider a customer, a loyal one? And how can we weight the importance of a customer for a business?

Q7 – Is the will to become an entrepreneur borns with you or it come up due to circunstances you are surrounded by?

Q8 – How do you define the entrepreneur profile and seen by others?